# The development and integration of Nostium, a reservation system, within De Wilgenweard

The creation of a framework that combines an extended version of the Technology Acceptance Model into a User-Centered Design approach to aid in the development and integration of a new system into a company

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DPM 2181

**De Wilgenweard**

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# Preface

Before you lies my master thesis, marking the completion of my Master's degree in Industrial Design Engineering. With this thesis, I am closing the chapter on my student life at the University of Twente. After this period filled with fun, learning, personal growth, and academic development, it is time to start a new chapter in my life.

I am proud of all the opportunities I have embraced during my studies, both study-related and extracurricular. When I started studying, I could never have imagined achieving so many things.

The experiences I have gained during this period have sparked curiosity about many new things, and I cannot wait to see where life will take me next. In fact, I am certain that ten years from now, I will look back on this moment with as much amazement as I do now when I think about my first year of university.

I would like to thank some people who helped me along the way. Firstly, I would like to thank Janina, my university supervisor throughout the graduation process, for guidance and useful input. I would also like to thank De Wilgenweard, the company that provided this assignment. Especially Tom, my company supervisor for his guidance and brainstorming sessions to set up Nostium in the best way possible for the company. And last but foremost, I would like to thank my parents for giving me the opportunity to study and for their support in everything I did during my studies, study related as well as in the opportunities for extracurricular activities by committing to multiple board years.

I am looking forward to taking the next steps in life and I have great confidence in developing myself even further.

I hope you enjoy reading this.

Annet Winters

Enschede, 1st of of February 2025

# Abstract

This thesis explores the development and application of a framework for integrating a new system within a company. The System Integration Framework proposed by the author combines elements of an extended version of the Technology Acceptance Model in a User-Centered Design approach.

The framework is applied to a case study on the development and integration of Nostium, a reservation system, for the company De Wilgenweard. De Wilgenweard was in need of a new reservation system as their current systems would stop working. De Wilgenweard found a solution: a reservation system named Nostium. However, the initial setup provided by the system developers turned out to be insufficient to be used by De Wilgenweard.

The goal of the assignment was to improve the given set up and integrate the reservation system within the company to replace the old reservation systems. The proposed framework provided guidance throughout the development process. This process consisted of four phases, based on the Double Diamond framework: Discover, Define, Develop, and Deliver.

First, the elements that influence the perceived usefulness and perceived ease of use were discovered, after which meaning was given to these elements in the define phase. Next, the system was developed by focusing on improving the attitude towards using and the behavioral intention. Lastly, the developed system was tested, and the final setup was implemented within the company. The renewed attitude towards using was assessed to evaluate the success of the reservation system.

The implementation of Nostium within De Wilgenweard is a success. As of January 2025, the reservation system is fully operational, and the old systems are completely replaced by Nostium. The user experience is perceived as positive.

The proposed framework provided valuable guidance. The use of it is evaluated at the end of the thesis and recommendations for improvement and further refinement are provided, as well as recommendations for the company for the usage of Nostium.

**Keywords**: User-Centered Design; Technology Acceptance Model; System Integration Framework; Double Diamond; leisure company; reservation system.

# Contents

# Glossary

HCI: Human-Computer Interaction

UCD: User-Centered Design

UX: User Experience

TAM: Technology Acceptance Model

PU: Perceived usefulness

PEU: Perceived ease of use

BI: Behavioral intention

Extended TAM: Extended Technology Acceptance Model

Nostium: new reservation system

Stratech: old reservation system

Leisure King: old reservation system

Units: Each accommodation can have units. Units are the separate parts that can be reserved within an accommodation.

Arrangementen: packages

Planbord: planning board

Ruimtes: accommodations

# Figures & tables

# Introduction

This chapter introduces the context of the assignment. It presents the company, De Wilgenweard, which provided the assignment to integrate a new reservation system within their company and emphasizes the importance of the assignment. The chapter describes the new reservation system the company wants to introduce along with the problem. Furthermore, the objectives of the assignment and the research question are outlined. This chapter concludes with describing the structure of the thesis.

# Context

At the end of 2023, the booking and reservation system Stratech announced it would cease its activities in the leisure sector after 33 years (Pretwerk.nl, 2023), stating that this sector was no longer economically viable for them (Marketing, 2023). Companies using Stratech were informed that they could continue using the software for another year, but development and support had already ceased.

The company providing this assignment, De Wilgenweard, a catering and activities venue in Overijssel, had also been using Stratech's reservation and booking software. Since the program is no longer supported and it is an important part of the company, they were forced to search for an alternative reservation system. As the owner of the company Herman Pronk explained "A good reservation program is fundamental to our company. This provides a connection between marketing, sales, planning, execution, and cash register" (H. Pronk, personal communication, March 9, 2024). At the beginning of 2024, the company updated its strategy, mission, and vision, which included the decision to search for a new reservation system as well.

A reservation system is used to manage all incoming requests and reservations of guests, enabling a company to properly serve them. Such a system usually has functionalities to keep track of the availability of activities, materials, rooms, and employees. For De Wilgenweard it is important to have an up-to-date overview of the activities booked each day, as well as the number of guests attending every activity. This information is essential to create daily plannings with the right employees assigned to each activity.

## The company De Wilgenweard

In 1998 Herman Pronk, together with a friend, founded a business to organize fun activities and theme parties for groups. In 2001 they realized their dream of owning a venue with space to host activities and provide catering: De Wilgenweard was established. Over time, Herman and his partner Marian became the sole owners of De Wilgenweard.

De Wilgenweard is a leisure company and specializes in group outings. Guests are treated to unforgettable experiences focused on hospitality, togetherness, and surprising entertainment. Teambuilding activities, sportive activities, workshops, and escape games are just a few examples of the activities they offer. The company is constantly innovating by refining their existing way of working and generating and implementing new ideas.

The venue is located in Nijverdal, Overijssel, surrounded by beautiful nature. It lies at the edge of the forest, near the hills of the Sallandse Heuvelrug and next to river De Regge. The location offers space for both indoor and outdoor activities. De Wilgenweard offers a wide variety of activities, including multiple escape rooms, water activities, pub quizzes. Also, there is the possibility to rent rooms to host meetings or rent hotel rooms for overnight stay. All in all, they have a lot to offer.



*Figure 2: Logo of De Wilgenweard*

Today, the team of De Wilgenweard consists of fifteen permanent employees and about fifty part-time employees. They work in various departments, such as sales, planning, purchasing, and marketing, as well as in activity supervision and hospitality. Employees of De Wilgenweard can be described as doers, having a no-nonsense mentality. "Kindness, curiosity, hospitality, and leadership are the values that we use to guide our own behavior" (De Wilgenweard, 2022, about the team section). This is achieved by following their mission and vision which are as follows:

*Mission*
We want to give our guests an unforgettable experience with attention to hospitality, togetherness, and surprising entertainment.

*Vision*
De Wilgenweard wants to continue to inspire its guests with new experiences in the field of activities with appropriate catering and wants to be a trendsetter in the North-East of the Netherlands.

## The new reservation system: Nostium

De Wilgenweard believes it has found a suitable replacement for its reservation system: Nostium. "Nostium is the reservation system specifically designed for offering all leisure activities, allowing you to manage them from one platform and make them available online" (Cc_Admin, 2024, for whom section).

De Wilgenweard has been convinced that Nostium could comply with their needs, as it offers a lot of the features and functionalities De Wilgenweard is demanding for a reservation system:
-  It is suitable for various types of activities;
-  Nostium provides real-time availability tracking for activities and the locations, making it possible for potential guests to make online reservations;
-  The system offers smart functionalities, such as suggesting the most optimal combinations regarding timeslots and group sizes;
-  The system considers the usage time of materials, planning them according to that to maximize their lifespan.
-  The system can be integrated with the company website and their cash register;
-  Automatic emailing is possible (WebEngine, 2021).

Based on these features, De Wilgenweard decided to do business with Nostium. A personal account was created for them and the system was introduced and set up with the help of Nostium. They gathered information via an excel sheet the *implementatielijst*, see appendix B, and created the setup for De Wilgenweard based on that data.



*Figure 1: Wordweb with associations connected to De Wilgenweard and the assignment*

# Problem Definition

Despite its promising features, the setup of Nostium did not result in a completely functional system. The system was not ready to use, mainly because of the wide variety of activities De Wilgenweard offers that need to be implemented into the system. Other complications include incomplete information and the illogical setup of some parts in the system. The set up did not function as desired by De Wilgenweard. Therefore, adjustments need to be made.

De Wilgenweard made a start with shaping their personal account to their likings but has not yet succeeded. There is little time for employees to invest in developing this program next to their regular tasks.

There are more aspects that need to be considered besides just filling in the details in the system. The main issue with setting up Nostium is that 'the real world' as it is for De Wilgenweard cannot be directly translated into the system. De Wilgenweard offers more than sixty activities and there is a lot of difference between the activities, but they all should be integrated into a single system. How can this program work for all different aspects? Is it even possible to meet the requirements of all the aspects? Nostium, the company with most knowledge about the reservation program, provided a setup for De Wilgenweard that did not meet their demands. The question raises if it is even possible to improve the setup and how should this be done.

Creating a functional system is not the only challenge. Introducing a new system that is vital to a company's operations can have a big impact, not only for the company but also for its employees. Even though the employees understand that a new reservation system is necessary, because the old system stops working, it is of great importance to make sure users are willing to use the new system and facilitate a smooth transition.

These are all points of attention that need to be addressed in order to create the best possible reservation system for De Wilgenweard.

## Objectives

There is tried to find literature about introducing new systems into companies by using a user-centered design approach and integration of new technologies. However, there is a gap in literature about combining these topics. This thesis proposes a framework that combines the predictive elements of technology acceptance in a user-centered design process. The framework is applied in this research by using the company assignment as a case study.

The assignment aims to set up the Nostium account for De Wilgenweard in the most optimal way possible, so that the reservation system can be fully operational by January 2025 to replace the old systems. Without a well functioning reservation system, the company will not be able to accommodate their guests in a proper manner. Bookings could be overlooked or forgotten, and locations and activities might be double-booked due to the lack of up-to-date information about their availability. These issues could eventually lead to late cancellations and unhappy guests. To avoid this, it is crucial to have a solid basis in a reservation system for a company like De Wilgenweard.

## Research question

To achieve these goals the following research question has been formulated.

### Main research question
*How can the limitations of Nostium be addressed to successfully integrate the reservation system into De Wilgenweard?*

The research question is divided into two parts: the setup of the reservation system and the integration of the reservation system into the company. This results in the following two sub research questions:

### Sub-research questions:
1. How can the reservation system be set up in the most optimal way possible for De Wilgenweard?
2. How can a smooth transition from the old to the new reservation system be ensured?

The first sub-question focuses on setting up Nostium by identifying the problems and developing a way to deal with the problems to improve the system. The second sub-question examines the integration process, with to goal of ensuring a smooth transition for De Wilgenweard.

# Structure of thesis

The research is structured using the Double Diamond Framework, developed by the British Design Council in 2003. It is a framework that is widely used to visualize design and innovation processes (Design Council, n.d.) and aligns with a User-Centered Design approach, used in this assignment. The framework is effective for addressing complex challenges and generating innovative ideas (Saste, 2023). The Double Diamond framework can be used for several purposes, such as shaping research, checking in on a project regarding their progress, facilitating a conversation about priorities within a project, or assessing the approach needed for a project (Ball, 2022).

The Double Diamond consists of two diamonds, each involving both divergent and convergent thinking. The first diamond represents the problem space, where the focus lies on discovering and defining the problem. The second diamond represents the solution space, where ideas are developed, and the design is delivered. The process is structured based on the following four phases: Discover, Define, Develop, and Deliver. Each phase in the Double Diamond forms a phase in this thesis as well. Figure 3 illustrates the structure of this assignment.

It is important to note that the Double Diamond is not strictly linear, even though the framework does suggest this. Feedback loops play an important role in testing solutions and make adjustments. Also, some phases have overlap with each other.

The following sections provides an overview of the structure of the thesis in more detail.

The first chapter that will follow after the introduction is the literature review, where a new framework is proposed to guide in achieving the goals of this assignment. Next, the methodology follows. This chapter describes how the research for this thesis is executed.

### Discover
In the discover phase information is gathered to discover the elements that influence the perceived usefulness and perceived ease of use. This involves exploring the company, its users, and their existing systems. Also, the new reservation system is discovered.

### Define
The define phase organizes the gathered information into focus points for developing the new reservation system. Insights into the elements that influence the attitude towards using are defined. Requirements and expectations for the system are set up from the retrieved information in previous phase as well.

### Develop
In the develop phase, ideas are generated and prototypes are created for possible improvement opportunities. There is iterated upon the parts of the system which results in a final setup of Nostium. Furthermore, other systems and elements that are not yet part of Nostium but are part of the reservation process, are analyzed for integration.

### Deliver
Finally, the deliver phase focuses on testing the given setup and making final adjustments. This is done alongside the transition process where information from the old systems is transferred to the new system to make the new system ready to use. After that, the transition and integration of the complete system is described.

Lastly, an evaluation is conducted to assess the renewed attitude towards using the new system.

### Conclusion, discussion, and recommendations
The thesis concludes by answering the research questions in the conclusion chapter. This is followed by the discussion and recommendations chapter, where the design, the proposed framework, and the thesis process is discussed and evaluated. Finally, recommendations for future improvements, for both the framework and the implemented system at De Wilgenweard are given.
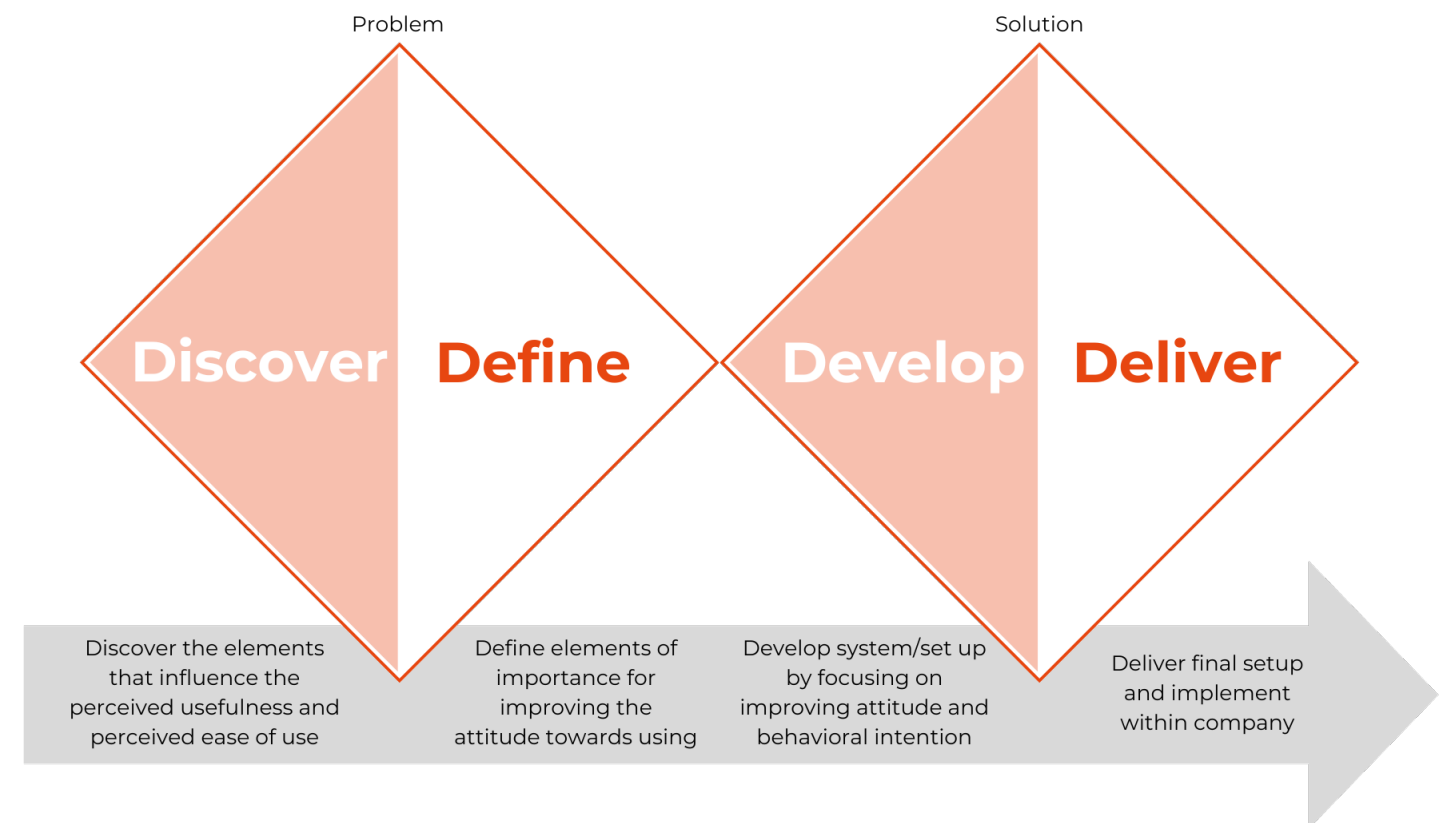


*Figure 3: Double Diamond Framework*

# Literature Review

This chapter explores several theories relevant to the development of a new reservation system. The purpose is to identify an approach that can help guide the assignment in the right direction.

The literature review focuses on two main areas. The first part addresses designing for user experience, aming on creating a system that meets user needs and is easy to use. The second part discusses a theory related to the integration of new technologies to explore ways to transition smoothly to a new system within a company. There is a gap in the literature about combining these two areas. To address this gap, a framework is introduced that combines an extended version of the Technology Acceptance Model with a user-centered design approach.

## Human-computer Interaction

When computers were first invented, they were primarily used by professionals. Interaction design was not on the minds of the engineers and scientists who designed, built, configured, and programmed early computers (MacKenzie, 2024). However, with the rise of personal computing in the 1980s, computers began to play a role in people's everyday lives at home and in the office (Kanade, 2022). These sophisticated electronic systems were now available to the general consumer and it became crucial to create human-computer interactions that were easy and efficient for less experienced users as well (What is Human-Computer Interaction (HCI)?, 2024).

Human-computer interaction (HCI) focuses on optimizing the way users interact with computers by designing interactive computer interfaces that satisfy users' needs. It is a multidisciplinary subject covering computer science, behavioral sciences, cognitive science, ergonomics, psychology, and design principles (Kanade, 2022). HCI consists of four key components: the user, the goal-oriented task, the interface, and the context. In this assignment the users are a group of employees, the goal-oriented task is managing the reservations of the company, the interface is the reservation system Nostium, and the context is the company De Wilgenweard.

## User-Centered Design

In User-Centered design (UCD) the user is central. As described by Juviler (2023, what is User-Centered Design section) User-centered design "focuses on product users. By implementing various research techniques, UCD incorporates the needs and feelings of users to guide each phase of product design and development. UCD also heavily emphasizes iteration — ideas are tested and redesigned to achieve usable, satisfying, and emotionally impactful products". It is obvious that users are using the product, but with UCD it is important that the users are involved in the design process as well. User-centered design focuses on understanding the user and making products that are easy to use (UXPin, 2024). To better understand users, Baxter et al. (2015) suggest developing user profiles. These profiles describe user attributes to provide insights into who the users are, what their needs and pain points are, and how they interact with technology.

## User Experience

As highlighted in the introduction, creating a functional reservation system is essential. An important aspect to achieve this goal is ensuring a high level of usability for its users. This involves taking into account User Experience (UX). UX Design is "the process design teams use to create products that provide meaningful and relevant experiences to users" (What is User Experience (UX) Design?, 2023, introduction section). A User Experience Designer should consider the following terms: who, why, what, and how of product use: who are the users; why do they want to use the product; what can they do with it; and how to design the functionalities in an accessible and aesthetically pleasing way (What is User Experience (UX) Design?, 2023).

An important part of UX is evaluating the usability of a system. Krug (2000) mentions seven elements that are important for creating positive user experience:
-   Useful: is it useful for the users? Does it fulfill its purpose?
-   Learnable: Is it understandable, can the user figure out how to use it? Is it easy to learn?
-   Memorable: Do users have to relearn the system each time they use it? Is it easy to relearn how to use it?
-   Effective: Does it do what it is supposed to do? Does it get the job done?
-   Efficient: Does it get the job done with a reasonable amount of time and effort?
-   Desirable: Do people want to use it?
-   Delightful: Is it enjoyable to use?

These elements provide a useful framework for evaluating the success of a product or system, as they focus on improving the user's experience with the system (V, 2021; Abrehart, 2020).

## Integration of new technologies

Introducing a new technology to a company can bring improvements. Its success, however, depends largely on the way employees deal with it and adopt the new technology (Succesvol Nieuwe Technologie Implementeren? Zo Doe Je Dat, 2023). To ensure a successful integration, Cooper (2023) describes the importance of engaging employees throughout the adoption process. Acknowledging that change can be difficult for someone is important. It is essential to provide support throughout the adoption process by, for example, providing practical training sessions. Additionally, it is important that employees have the opportunity to share feedback about their experiences using the new technology.

### Technology Acceptance Model

The Technology Acceptance Model (TAM) shows which factors influence the intention of people to use a product (Technology Acceptance Model (TAM Model): Alles Wat Je Moet Weten, n.d.). "The TAM model argues that the adoption rate of a product does not depend on the features it has, but rather on the experience – the user experience - that the user has" (Demystifying the
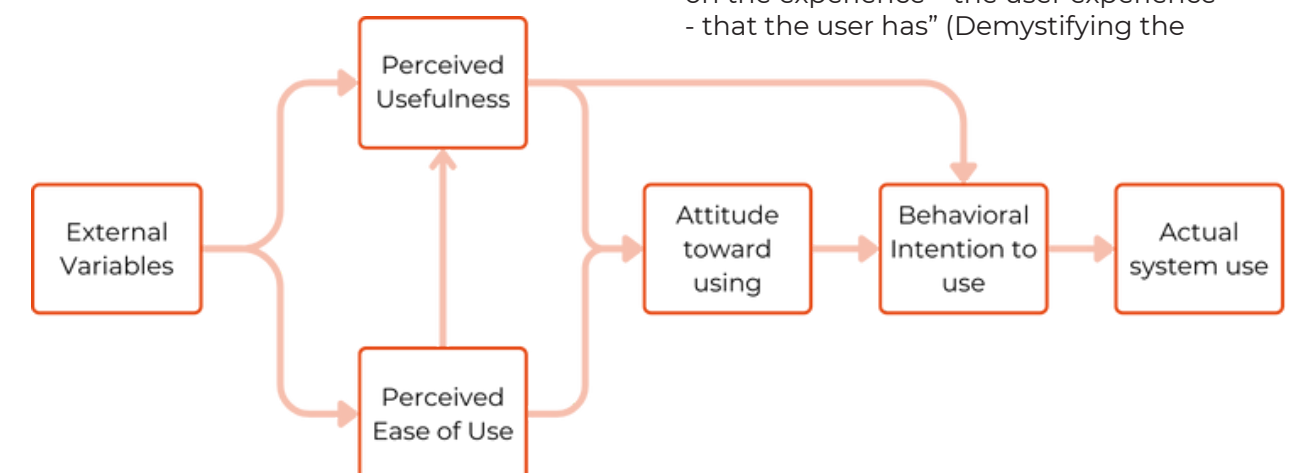


*Figure 4: Technology Acceptance Model by Fred Davis (1989)*

Technology Acceptance Model (TAM): A Comprehensive Guide, n.d., what is the Technology Acceptance Model section). The model emphasizes two main factors: perceived usefulness (PU), which is the degree to which a user sees the added value or usefulness of the product, and perceived ease of use (PEU), which represents how easy the product is to use. These two factors have the most influence on the adoption rate of a new product, whereby the perceived usefulness weighs about one and a half times heavier than the perceived ease of use.

Both terms, perceived usefulness and perceived ease of use, can be influenced by external factors such as social norms, recommendations from friends, and background knowledge. The PU and PEU predict the attitude towards using which influences the behavioral intention (BI) on its turn. BI refers to the willingness to use the technology.

This model shows that even when a product may work efficiently, when users do not see the added value and do not want to use it, the product is still a failure.

Literature shows that there are multiple extensions of the TAM model for various purposes (Sagnier et al., 2020; Venkatesh & Bala, 2008; Venkatesh & Davis, 2000). Mlekus et al. (2020) introduced an extended TAM model incorporating User Experience characteristics. Elements of UX are implemented into the model to clarify the influence the different elements have on the main characteristics (PU, PEU, and BI).
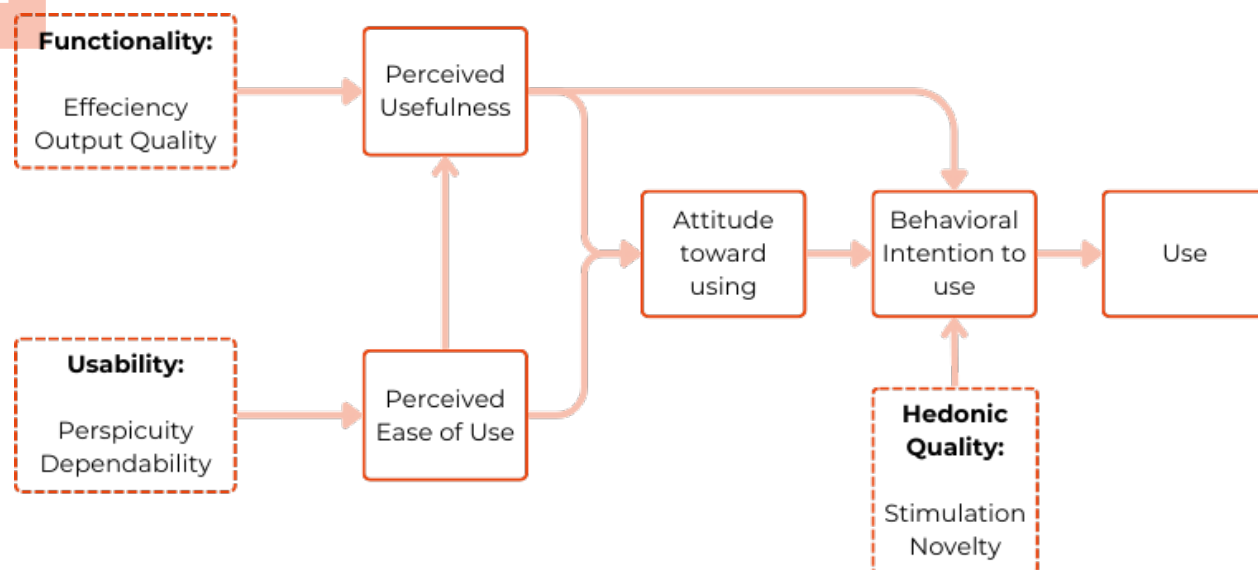
This extension aligns with the user-centered design approach focused on in this thesis.

The UX elements integrated in this model are comparable to the UX elements described by Krug (2000), which were discusse earlier on page 19.

The perceived usefulness is influenced by the elements useful, effective, and efficient. Usefulness is determined by the degree of which the user believes the system will be useful. A system is perceived as effective when users see that the system works properly and meets the expectations of the users. A system is perceived as efficient when little time and effort is needed to achieve the goals.

Learnable and memorable are elements that influence the perceived Ease of Use. A system is learnable when users can easily understand and use it. If a system is memorable, users can easily recall how to use the system after a period of not using the system.

Desirable and delightful are elements that influence the willingness to use the system, the behavioral intention. If a system is desirable, users find it appealing and are more eager to try it. A delightful system gives users a positive impression and encourages users to continue using it (Mlekus et al., 2020).

When all these elements are positively perceived, the users' attitude shift from considering using the system to actually using it. However, how the elements can

be influenced or changed to achieve acceptance is not discussed. The TAM model is a theoretical model that only predicts the acceptance of technology (Salovaara & Tamminen, 2009). There is a gap in the literature regarding the practical application of the model. To bridge this gap, this thesis proposes applying the extended TAM model within a user-centered design process, creating a framework for successfully implementing new systems within companies.

# Proposed framework

The Double Diamond Framework serves as a guideline for the design process in this thesis, as discussed in the introduction. Since it is a user-centered design approach, it is a suitable option to integrate the Extended TAM model with. The proposed framework combines elements of the Extended TAM model with this user-centered design approach.

This System Integration framework, shown in figure 6, guides the designer through the design process of creating and integrating a new system within a company. The process is divided into four phases, as defined by the Double Diamond: discover, define, develop, and deliver. Initially, the company's current situation is evaluated to assess the perceived usefulness and perceived ease of use of its current processes. The retrieved information helps to identify elements that should be preserved, improved, or removed during the development process of the new system, which eventually leads to the successful integration of the new system.

### Discover
The goal of the first phase is to discover the elements that influence the perceived usefulness and perceived ease of use, that affect the attitude towards using. This involves evaluating the company's current situation by gathering information about:
- the company;
- its users;
- aspects the new system could influence, such as tasks users are executing.

Additionally, the new technology or

system that the company intends to use is discovered by exploring its functionalities and possibilities.

As illustrated in the framework (see figure 6), users play an important role throughout the entire process, as they are involved in every step of the design process. This aligns with a user-centered design approach. Users are introduced in the first phase and involved in subsequent phases.

All this information results in both UX elements of the current status as well as of the new system and creates insights into the elements that influence the perceived usefulness and perceived ease of use.

### Define
The goal of the define phase is to organize the knowledge gained in the previous phase to define the attitude towards usage. Meaning is given to the discovered elements to define improvement opportunities.

### Develop
The goal of the development phase is to design the system with focusing on improving the attitude towards using and creating a positive behavioral intention.

The development of the system happens in this phase. The output from the previous phase, the improvement opportunities, are integrated into the development process by iterating upon them.

By involving users in this phase, experiences can be shared, and feedback of the users can be collected. It is valuable to show the users in this phase the adjustments and the working of the system in to let them know that the system actually works and is improving. This influences the behavioral intention positively.

This phase results in a final prototype of the developed or adjusted system.

### Deliver
The goal of the last phase is to deliver the final setup and implement the system into the company so they can use it.

The developed system is tested and evaluated in this phase. Final adjustments can be made before implementing it completely into the company. The involvement of users stays important. Their input is valuable, and they can get used



*Figure 5: Extended Technology Acceptance Model by Mlekus et al. (2020)*

to the system already. Users evolve a new attitude towards the developed system.

The transition process is an important part as well. Supporting users is essential to make the transition as smooth as possible. This also influences the attitude towards using.

Finally, a fully integrated system is realized, which is the output of the last phase. To evaluate the actual usage, the attitude towards using in the beginning and the renewed attitude towards using should be compared and evaluated. When the attitude is positively influenced, the outcome is positive.
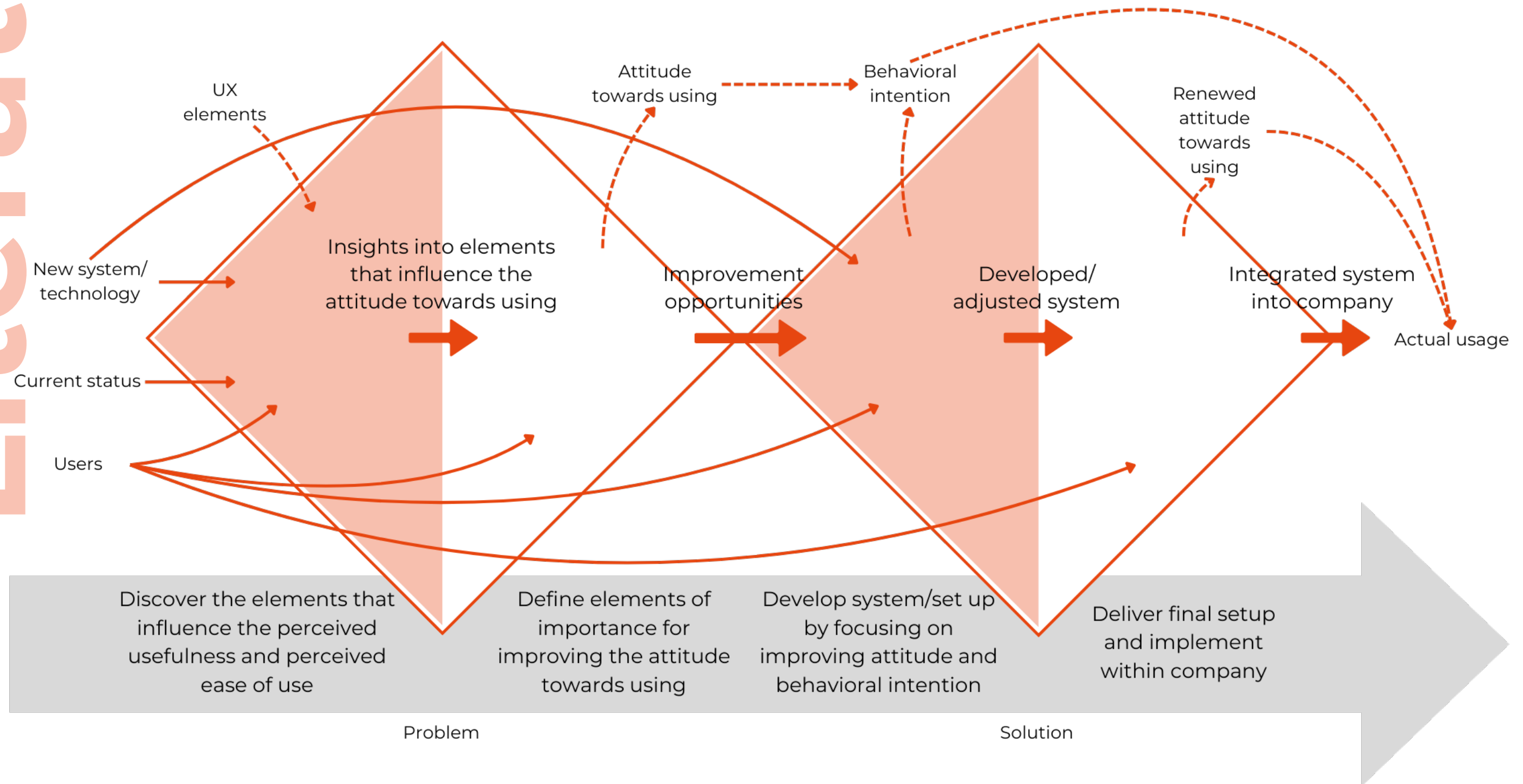


Figure 6: System Integratoin Framework

# Methodology

The proposed framework discussed in the literature review is used to aid in answering the research question. This research uses a qualitative approach. The methods and tools that are used in this assignment are discussed in this chapter.

Figure 7 provides a visualization of the specific research activities within the framework. These activities are discussed per phase.

The atmosphere within the company is informal and therefore strict research methods such as formal interviews and observations were not appropriate. Instead, the term engaging with main users encompasses the used approach. This means that information has been obtained in an informal manner, by asking questions and observing users. To keep track of this, a list with subjects of where information is obtained about and who has provided the information was created. This information can be found in appendix C.

## Discover
The first phase aims to discover the elements that influence the perceived usefulness and perceived ease of use. This goal is achieved by discovering the current status of the company and exploring the new system. With the current status is meant the status at the beginning of the assignment.

### Current status of the company
Exploring the current status of the company provides information about the company and its users, as well as information about the existing tasks within the company that the new system might influence by changing or completely taking over these tasks.

Research activities that belong to this step are executing a stakeholder analysis and task analysis. Information about the systems is retrieved by engaging with users. Sales employees were asked about the system and its working, and they were observed

while using it. Their needs and expectations were discovered. Desk research has also been executed to discover the systems.

### New system
The functionalities of the new system were researched. This is done by observing and discussing with the company supervisor. The company supervisor explained everything that was known to him about the new system. Additionally, desk research has been executed, by retrieving the support page and trying out the initial version of the system.

### UX elements
The research activities that have been executed in the discover phase provided lots of information. Throughout the process the information that is retrieved is linked to the defined UX elements: usable, effective, efficient, memorable, learnable, delightful and desirable. The UX elements that were identified influence the perceived usefulness and perceived ease of use.

## Define
The second phase aims to define the elements that are of importance for improving the attitude towards using the system.

Previously retrieved information is organized to define focus points, requirements, and expectations.

### Focus points – UX elements
The UX elements that were identified in previous phase are collected and ordered in appendix D. Meaning is given to the elements by defining whether they are perceived as positive, negative or neutral and the reason for that. The most important elements became focus points and are explained further. This is done by doing desk research and engaging with main users. The information that is retrieved is given meaning and the attitude towards using is defined.
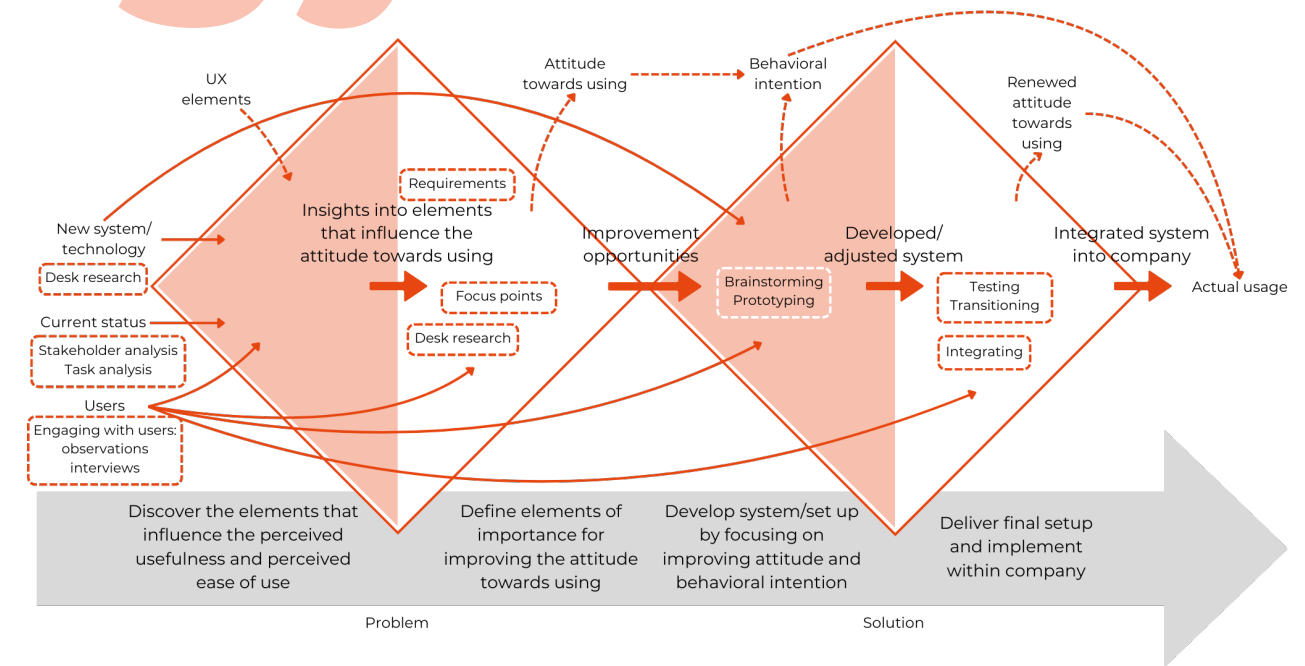


*Figure 7: Visual overview of research activities*

### Requirements
Requirements for the new system were formulated, based on information from the discover phase. The requirements describe the characteristics and functionalities the system should meet. The requirements are used in the deliver phase to assess whether all requirements have been met, providing an indication of the success of the system setup.

### Expectations
Expectations were defined by summarizing the ideas about Nostium and De Wilgenweard. This is a combination of expectations from the company supervisor, boss, and from the author's perspective about the implementation of Nostium.

## Develop
In the develop phase the new system is set up, by focusing on improving the attitude towards using the system and influencing the behavioral intention of the users.

The third phase consists of brainstorming, designing and prototyping potential

solutions for the reservation system. Ideas and possible solutions were discussed with the company supervisor, element by element, and tested by trial and error. Company and activity details are retrieved by being in touch with main users. This also influences the behavioral intention of the main users positively because they are involved in the process and their opinions are taken into account.

The first step towards integration is made as well, by exploring the other systems that need to be integrated or interact with the reservation system.

## Deliver
The last phase aims to deliver the final setup of the system and implement this within the company.

### Testing, transitioning, and integration
The final phase focuses on testing the system and ensuring a smooth transition to the new system. Based on test results, adjustments were made. Manuals were

created for the users to establish a smooth transition and support was provided during the transition period.

Transitioning information from the old to the new system was managed by the sales team, under the company supervisor's guidance. This allowed them to learn and test the system simultaneously, setting the transition in motion.

### Renewed attitude towards using
After delivering the final setup, it was evaluated how this is received by doing qualitative validation. The new attitude towards using was mapped. This was done by verifying the requirements, evaluating the UX elements and retrieving the experience of the main users.

## Reliability
The main users of the reservation system, the sales team, consist of four people. This is a small group from which to retrieve user experiences. Within this group, there is a distinction between two employees who have used the old systems extensively and two employees who are relatively new and are still familiarizing themselves with the reservation systems. This difference in experience will most likely result in varying perspectives on the new reservation system. It is expected that the newer employees will have a more positive experience with the transition to Nostium. Their limited familiarity with the old systems makes them less resistant to change and their younger age is another factor, as research indicates that younger people are more adaptable to new technologies (Weinberg, 2004). These differences were considered in this research.

# Phase 1 Discover

The discover phase is the first phase of this research. In this phase, the activities offered by the company are discussed. This is done to discover the different kinds of activities that need to be integrated into the reservation system and to understand what these differences require of the system. Additionally, stakeholders involved with the reservations are identified. More information is gathered about the users within the company, and their main tasks related to managing reservations. The functionalities of the old systems are also discussed to gain insight into what users are accustomed to and to discover their needs. Furthermore, information is gathered about the new system, including the functionalities of Nostium and the initial setup for De Wilgenweard, to discover what exactly the problem is.

Throughout this phase, relations are established between the retrieved information and the relevant UX elements that could influence the attitude towards using.

# Activities at De Wilgenweard

As previously mentioned in the introduction, De Wilgenweard offers a wide range of activities at its venue. An activity is defined as anything that can be booked at De Wilgenweard and is associated to a time and space, such as an overnight stay, a theme party, an Expeditie Robinson activity, or a barbecue. All activities are listed on their website www.wilgenweard.nl. The website categorizes all possibilities into two main groups: activities and food & drinks. Within the activities page, multiple subcategories can be found, but many activities appear in more than one subcategory. The activities are divided into the subcategories this way to assist users in navigating to the activity they are looking for. In their old reservation system Stratech, no categorization was made between activities.

For the purpose of this research, the activities are categorized into several groups. This provides a better understanding of all the different possibilities De Wilgenweard offers and forms an idea about the different kinds of activities the new reservation system, Nostium, needs to accommodate. The information was retrieved by asking employees, a list of activities was provided by them. Additionally, information was retrieved by browsing the website.

Figure 8 provides an overview of all the identified activities and spaces. However, the data retrieved from the company was not entirely up to date. During the development phase, it became clear that a couple of activities were no longer active, while new activities had been added. These changes are not reflected in the figure, as the figure represents the general overview and the information on which further research is based.

In total, 75 activities have been identified and categorized as follows: activities, food-related activities, overnight stay, rooms for rent, and other.

Within the activity group, further subcategorization has been made: outside activities, water activities, escape games, inside activities, and external activities. This division is based partly on location where the activity takes place and partly on the type of activities.

The food-related activity category includes all activities that are related to food and drinks, such as breakfast, lunch, dinner, snacks, and drinks. It is also possible to combine food with other activities.

Next to that, there are rooms for rent, which can be used for events like meetings or receptions. The rooms are also available for catering, which may include activities from the food-related category, or they can host other activities.

Additionally, De Wilgenweard offers the possibility for overnight stay. The venue has twelve rooms that can accommodate up to a maximum of 26 people. The overnight stay activities have a duration measured in days, instead of in minutes or hours like the other activities.

In the last category, other, the remaining options are placed. These are activities such as welcoming guests, breaks between activities, or end breaks. These are used in combination with other activities. This category also contains special offerings, combi deals for specific groups, and activities that did not fit in any other category.

There is a small group of activities that guests can reserve online. These activities are mostly easy to guide or explain, so most activity supervisors can do that. This makes it planning-wise easier to get enough available personnel for last-minute bookings. Before a staff member can supervise an activity, they must follow training for that specific activity, such as following along with an experienced employee or attending a training day. Guests can reserve these activities via the website by selecting the group size and available time slot on a specific day. The online reservations are managed through a separate reservation system, Leisure King. Therefore, De Wilgenweard actually uses two different reservation systems simultaneously. More information about Leisure King will be discussed on page 38. The activities available for online booking are indicated with * in figure 8.

The overview of all activities available at De Wilgenweard serves as a starting point for setting up Nostium. The overview of the different possibilities created the realization that applying a one-size-fits-all setup for each activity might not be suitable. This relates to the UX element effectiveness. Copying settings from one activity to another may not comply with the specific needs of each activity, as duration, time, group size, and many more settings are specific for each activity. Customization will likely be necessary.

## All activities and places at De Wilgenweard

| Activities | | | | Food-related activities | Overnight stay | Rooms for rent | Other |
|---|---|---|---|---|---|---|---|
| **Outside activities** | **Escape games** | **Water activities** | **Inside activities** | Ontbijt | Overnachting | Rietslenk | Ontvangst |
| Abseilen | Key of Life | Sup verhuur* | Klimwand | Lunch | Overnachting bivak | Jipkesbeltzaal | Pauze |
| Mountainbike | Rijkshotel de Nor* | Sit-on-Top* | CSI Moordspel* | Diner | Camper overnachting | Reggezaal 1 | Eindpauze |
| (mtb)* | De Schaduwspits* | Kano by Night* | Themafeest | Borrelen | | Reggezaal 2 | Sagenvertellingen |
| Mtb met gids | Escape the Forest* | Sup by Night | Pubquiz | Barbezoek overnachters | | Terras | Sagenmysterie |
| Nightbiken | Der Bunker* | Dauwpeddelen kano* | Swingo | Bierproeverij | | Biergarten | Schoolreisje avontuur |
| E-mtb verhuur* | Escape room | Dauwpeddelen sup* | Alleskunner | Vergaderen | | Hooiberg | Schoolreisje Beleef |
| Fietsverhuur | Gentlemen* | Kano verhuur* | Feestavond | Workshop | | Grasterras | Schoolreisje sw en plez |
| Handboog | Beat the Matrix* | Vlot bouwen | Vergader arrangement | Pizzajolly | | Waterterras | Kinderfeestje Helden |
| SWO | | | | Pannenkoeken Jolly | | Externe zaal | Kinderfeestje BTM |
| Langlaufen | | | | | | Schuilenburg | |
| Gravity Fall | | | | | | | |
| Touwparcours | | | | | | | |
| Navigatie Chall* | | | | | | | |
| Sterrit | | | | | | | |
| E-chopper | | | | | | | |
| Ballenkanon | | | | | | | |
| Fear | | | | | | | |
| Bachelor | | | | | | | |
| Expeditie Robinson | | | | | | | |
| Expeditie Rob vo/ bo | | | | | | | |
| Bravo | | | | | | | |
| Fort Boyard | | | | | | | |
| Saboteur | | | | | | | |
| Slingertouw | | | | | | | |
| Speleologie | | | | | | | |
| Gps tocht | | | | | | | |
| Kompasmysterie* | | | | | | | |
| Teambuildingspad | | | | | | | |
| Teambuildingstocht | | | | | | | |

*Figure 8: Activity overview*

# Stakeholders

By following a user-centered design approach, it is necessary to get to know and understand the stakeholders of De Wilgenweard and the users of the reservation systems. Within the company, various people interact with the reservation systems or are involved with the reservation process in a way. Some are heavily involved in managing the system by making changes or entering data, while others primarily view the system to retrieve information for decision-making or operational purposes. Next to that, external stakeholders must be considered, as they either influence or are affected by the reservations that are made. Figure 9 provides an overview of all identified stakeholders.

The identified stakeholders are in some way involved with reservations or the activities that are hosted at De Wilgenweard. This includes those who manage reservations or have an interest in gaining information from the reservations. A distinction has been made between internal and external stakeholders. Internal stakeholders operate within the company, while external stakeholders are external parties. In figure 9, internal stakeholders have a green background, and external stakeholders have a white background.

## Internal stakeholders

Employees within the company can be divided into two groups: one group that actively uses the system and one group that does not use the system but is still affected by it.

The group that does not directly interact with the reservation system is still influenced by the system. For example, when a dinner reservation is made, the kitchen staff must be informed about the number of meals required and dishwashing staff must be scheduled.

The group that actively uses the reservation system are the main users. They use the reservation system to manage bookings. Details about the main users are discussed in more detail on page 33. Another group that uses the system includes employees who want to gain information from the system necessary for their tasks. For example, when the number of people that showed up differs from the reservation, this information can be changed. This is important to keep up to date for the final billing. Next to that, some employees use the system to view the available reservation information. For example, when a guest arrives and mentions their prior reservation, staff can verify the reservation via the system and act accordingly.

## External stakeholders

Suppliers are placed as stakeholders because the demand for supplies is based on reservation data. A lack of clear information could result in operational issues, such as insufficient stock or overbooking of materials. This relates to the effectiveness of the system.

Guests interact with the system via its front end. They make reservations directly online or by contacting De Wilgenweard about the possibilities. Bookings are often made for company outings, school trips, bachelor parties, or children's parties. A well-functioning reservation system contributes to creating a positive experience for the guests. Guests can be seen as main users as well, for online reservations. However, the focus of this assignment lies in setting up the backend of the reservation system, making it functional for the company. Therefore, guests are placed as stakeholders. Eventually, the development of the front end will be discussed in this thesis as well, with a focus on making it functional, without paying much attention to user experience from the guest's perspective.

A competitor is Leisure King, the company that also offers a reservation system. By transferring to Nostium, this company will lose De Wilgenweard as a customer. Also, competitors are nearby leisure companies: Kartplaza in Nijverdal, Schwarzwald in Rijssen, Outdoor Unlimited in Ommen, and Multifun in Bussloo. Interestingly, Multifun also uses Nostium, which could be useful to look into to get inspiration from.

Nostium, the provider of the new reservation system, is also a stakeholder. They offer technical support through a helpdesk, email, and an extensive support page where multiple articles are available about the setup and functionalities of Nostium.

## Main users

The last stakeholder group is the main users. They are all internal stakeholders who interact most intensively with the reservation system. Three types of main users are identified, as shown in figure 9. They play a crucial role in the reservation process and can contribute to developing the new reservation system by offering specific insights and addressing their needs for the reservation system. Their insights and experiences are used to determine the relevant elements that affect the perceived usefulness and perceived ease of use. The owner of De Wilgenweard, Herman Pronk, has the highest authority. He works with the reservation system to manage reservations.

The sales department is also responsible for managing reservations. Initially, the sales team consisted of two people, the boss and one employee. Later this expanded to a group of four people. This mix of experienced and unexperienced employees creates a dynamic where some users are highly familiar with the old systems, while others are less accustomed and potentially more open to adapting to the new system. This relates to the UX element of desirability. The sales team manages all reservations but is also able to make changes in the program, for example when a new activity is created and needs to be added or when an activity is no longer offered and has to be deleted.

Employees responsible for scheduling staff also rely on the reservation system, although their use is more focused on viewing and interpreting information rather than making changes. They use the system to create schedules based on the upcoming reservations.

The group of employees accessing the system to retrieve reservation details to serve guests, as discussed earlier, can also be seen as main users in some way. They serve guests to give them a great experience at De Wilgenweard, which is very important for the company. They need accurate information from the system to succeed. However, they are not using the reservation system intensively, which is why they are partly indicated as main users in figure 9.

The main users can share their experiences with the old systems and give insights into important or well-functioning aspects that should be retained. Their feedback is also
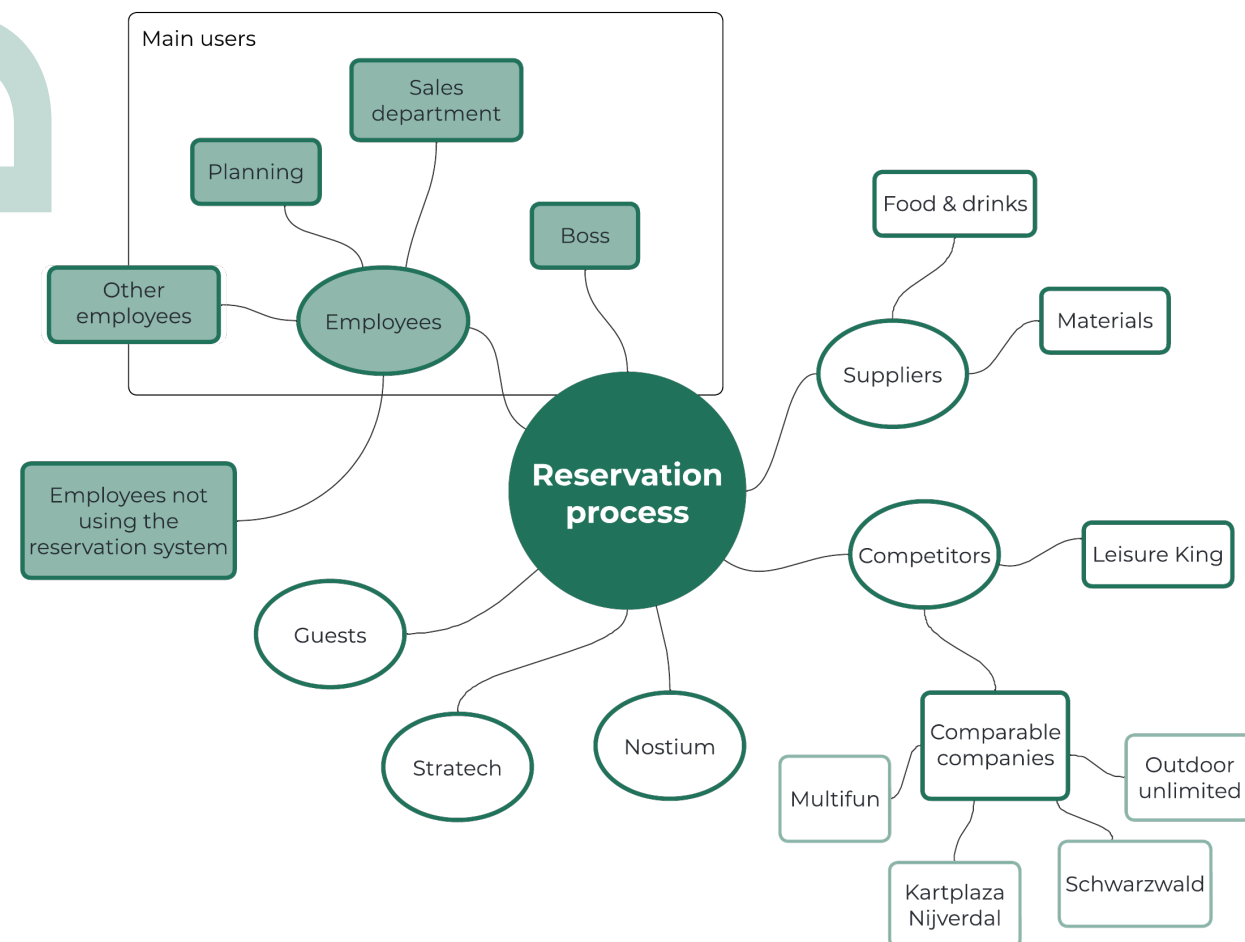


*Figure 9: Stakeholder map*

valuable during the development of the new system, ensuring Nostium meets the specific needs of the organization.

## Main tasks

The primary purpose of a reservation system is to manage all reservations. At De Wilgenweard, the main tasks for the system revolve around providing information to guests about specific activities, creating customized programs, making plannings, and confirming reservations followed by registering them. These tasks are executed by the main users through various processes, which include creating reservations, adjusting bookings, and coordinating with other staff. In this section, the different ways a reservation can be made are described.

All the activities De Wilgenweard offers are displayed on their website. Guests can search on the website for their desired activity or search for inspiration for an activity. If they want to book an activity at De Wilgenweard, they can either place a reservation or ask for more information. There are generally two ways to do this: online or via request.

### Online reservation

Online reservations are available for a select number of activities that are easy to supervise and require minimal customization. When the guest decides what they want and it is possible to book online, they can make a reservation via the website. Guests can check the availability of these activities, select their preferred

time slot, and make a reservation by filling in their contact details and completing the payment. Once payment is processed, the booking is automatically confirmed.

This booking process runs through another reservation system, Leisure King. Leisure King operates separately from the primary reservation system. The sales team has to check Leisure King regularly on new reservations and must transfer incoming reservations from Leisure King to Stratech manually to ensure availability remains up to date in their main reservation system. The same must be done the other way around, to keep the availability for online reservations in Leisure King up to date as well. This relates to the UX element efficiency. Working with two different systems increases the chance of making mistakes. If a reservation is forgotten to be transferred to one of the systems, it is possible that overbooking occurs. This means that there may not be enough space or material for one of the reservations, which would then have to be cancelled. This relates to the UX element of

effectiveness.

### Request for reservations

Most activities cannot be booked online directly, and guests are required to reserve via request. This is possible via an application form on the website, or through phone or email communication.

The request form can be used for a specific activity. The guest fills in their desired date, time, and group size and can leave any comments. The sales employee evaluates the request, checks the availability and guest information, and contacts the guest to discuss the possibilities. When the request is feasible and accepted, it is converted into a reservation. Sometimes it is necessary to get in contact with the guest. This could be to gather more information before the application can be accepted or because the desired date/time is not available, and an alternative will be given. This can be done via email or phone by a sales employee. The request is initially set as an option in the system, and when it is accepted the status will be changed to confirmed.

Another option for the guest is to call or email De Wilgenweard to request information or to make a reservation. The possibilities are discussed and afterwards the sales employee will send a confirmation email with the details. The reservation is entered into the reservation systems as an option by the employee who handled the request. If the program is accepted by the guest, the reservation status will be updated to confirmed. When the proposal is declined, the sales employee will try to adjust the program to the liking of the guest.

Emailing or calling is used more often when a guest is uncertain about their plans or has questions regarding an activity or needs help with composing the right program for them.

To make a reservation, the following details are required:
- Guest or organization name;
- Number of participants, with a distinction between adults and children;
- Email address and phone number;
- Program details, including the activity, date, and time, as well as any additional information such as dietary wishes.
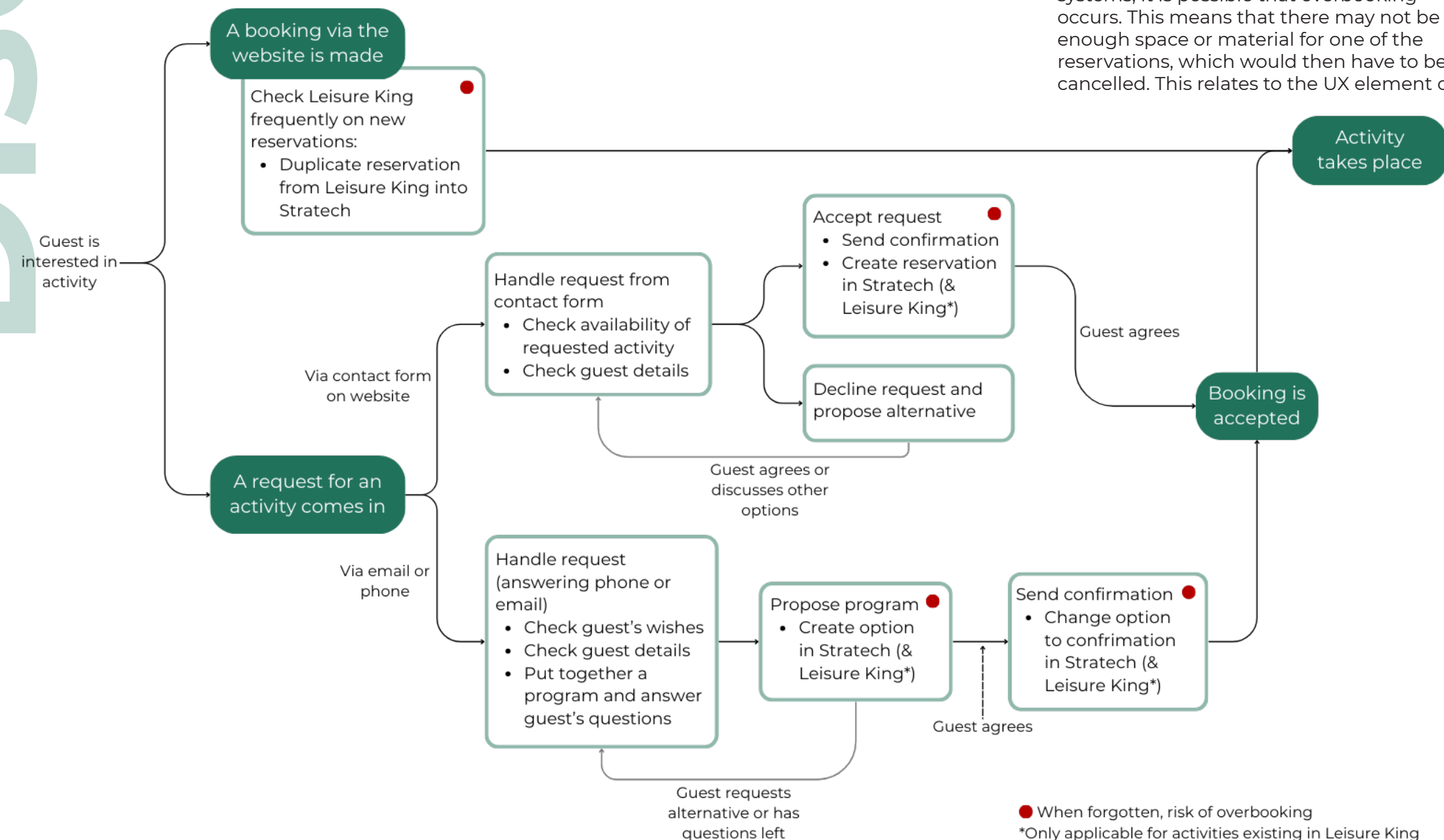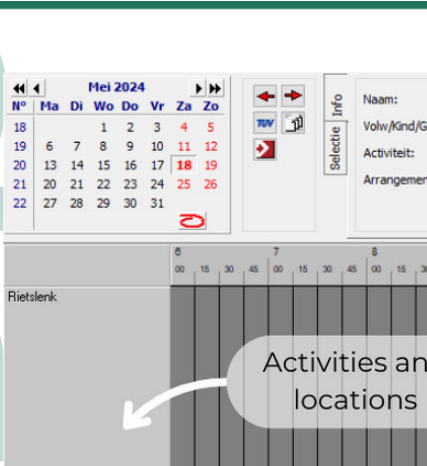


*Figure 10: Task analysis*

# The old reservation systems

For over twenty years, De Wilgenweard relied on Stratech as its primary reservation system. However, as mentioned in the introduction, Stratech has stopped offering support for it and is needs to be replaced. Stratech was their main reservation system. Even though they were forced to search for an alternative, Stratech already showed several issues that made it inefficient to work with.

A limitation of Stratech is that it only works internally. Employees cannot access the system from home and guests cannot make online reservations. Guests always had to call or email for a request. To address this problem, another program, Leisure King, was introduced in 2020, enabling online reservations. This was especially useful during Covid-19 pandemic, enabling the possibility to make online reservations. However, only a limited selection of activities is available for online booking, as mentioned earlier.

Despite Stratech is outdated and both systems have flaws and are going to be replaced, it is still valuable to analyze their functionalities and usage within the company. Experiences from main users were gathered by asking them about the programs and observing how they are used.

## Stratech

De Wilgenweard uses Stratech as their main reservation program, primarily for planning purposes. All activities offered by De Wilgenweard are integrated into Stratech, both as products and as activities. Activities are used for scheduling and availability management, while products are linked to pricing and quotations. So, both need to be used.

The main page used in Stratech is the planning board, see figure 11. This can be seen as a digital agenda that provides an overview of all booked activities on a daily basis. The left column lists the activities and locations, used interchangeably. The top row divides the day into timeslots and within the table, the reservations are shown. The length of the beam represents the duration of the activity. Hovering over a bar reveals additional details, such as group size or specific notes (e.g., dietary requests). Each color resembles a reservation. The top row or sometimes the two top rows, often show notifications instead of reservations.

Stratech requires some manual adjustments when reservations are created in the system. Activities have a default duration of 30 minutes, which often needs to be changed manually to the correct duration. Also, multi-part activities are not always scheduled in sequence and must be manually reordered. This is relatable to the UX element efficiency.

The planning board is important due to its various purposes. Besides information about the reservations, it also provides information planning related. The reserved activities and group size are used to create the staff schedules. In one of the bars in the top rows it is indicated when the planning has been finalized. From that moment, any changes need to be communicated with the staff involved. Another example of how the planning board is used is for ordering the right supplies regarding food and drinks. Weekly or biweekly activity overviews are printed and given to the cook to order the necessary supplies. Once the list is given to the cook, only changes can be made in consultation with him. The period to which this applies is indicated on the planning board.

Another function of Stratech is generating quotations. The system generates quotations based on reservation details. Manual adjustments for these documents might be needed to accommodate custom requests, pricing adjustments or additional information such as welcome drinks or activity description.

Making and sending invoices, however, is not integrated into Stratech. Invoices are created with data gathered from the cash register, the reservation system has no further use in that.
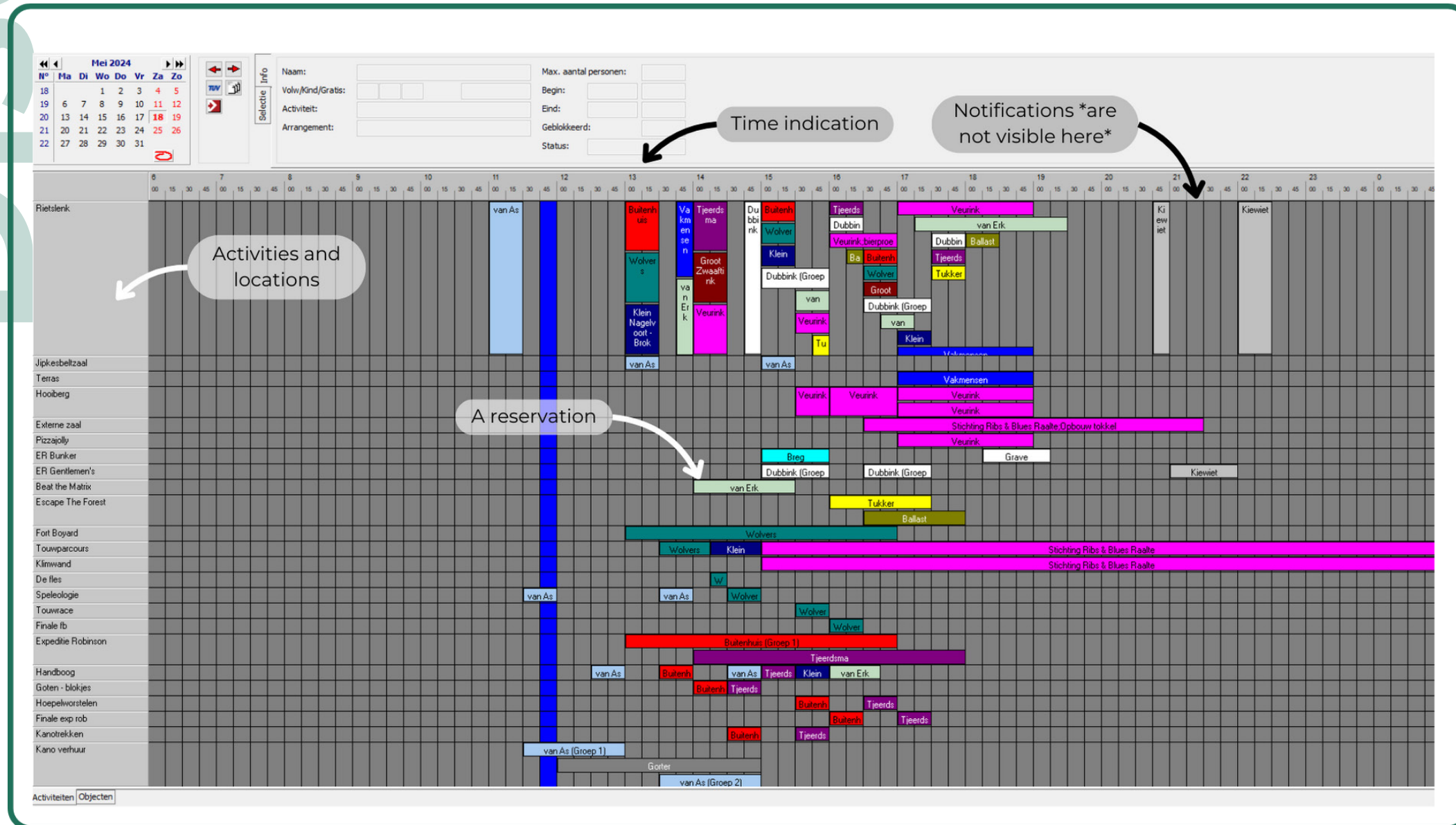


*Figure 11: Planning board Stratech*

## Leisure King

Leisure King complements Stratech by managing online reservations. Leisure King offers a total package that can be linked to the company's own website so that reservations, payments, and stock management take place completely online. Leisure King can be used as both a reservation system and a ticket system (LeisureKing Reservation System; Booked, Paid, Taken Care Of!, n.d.). Guests can make online reservations through the website of De Wilgenweard for a select group of activities, as the availability for activities and



**Reserveer hier**

Vul hieronder het formulier in

**Bedrijf**

**Voornaam** *

**Achternaam**

**E-mailadres** *

**Telefoonnummer** *

**Samenstelling groep**

Gezin

**Bericht**

> **Reservation details:**
> - Company name
> - Name
> - Email
> - Phone number
> - Kind of group
> - Additional commnets
> - Number of participants
> - Date
> - Preferred time

**Aantal verwachte deelnemers**

**Voorkeurs datum**

dd-mm-yyyy

**Voorkeurstijd**

Ik heb belangstelling voor eten en drinken bij dit arrangement

☐ Ja
☐ Nee

**CAPTCHA**

☐ Ik ben geen robot
reCAPTCHA
Privacy - Voorwaarden

Versturen

*Figure 12: Request form, visible on Wilgenweard website*

---

11 werelden, scoor punten, vind Amber en win!



**Tarieven**

Per persoon    € 22,50  − 4 +

Voeg toe aan winkelmand
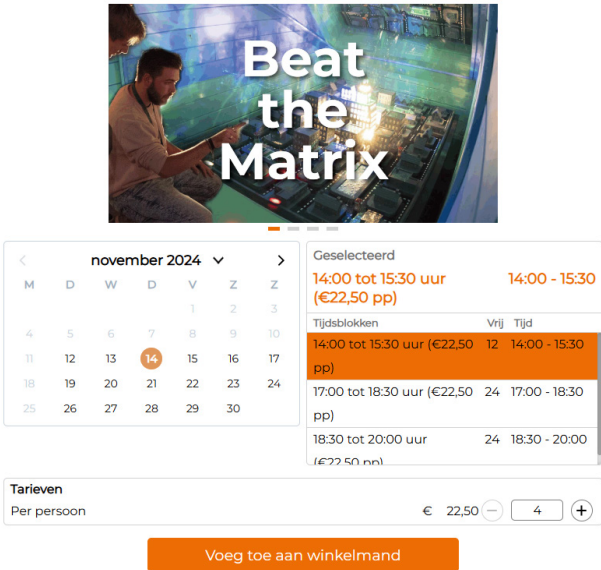
*Figure 13: Reservation widget, visible on Wilgenwaerd website*

materials is kept up to date in this program. A reservation widget from Leisure King is integrated on the website to make this possible. Guests must select a date, time slot, and the number of people attending, then complete their order by adding the reservation to the shopping cart and processing the payment.

When online booking is not available for a specific activity, a contact form is displayed instead, see figure 12 for an example of the form and the fields that need to be completed.

### Back-office Leisure King

In the back office of Leisure King, there is also a planning board. It has an agenda page for the specified day, just like Stratech, but it functions differently. The planning board in Leisure King displays the number of available options of an activity for each period. As can be seen in figure 14, not a lot of options are available at the specified moment. Activities can be switched off. It is useful to temporarily disable activities when, for example, activities are season dependent.

The planning board, however, is not used much in Leisure King. A frequently used page is the dashboard, which provides an overview of the reservations that are made. In a quick view it can be seen if there are any new reservations that need to be transferred to Stratech, to keep the availability up to date.

---
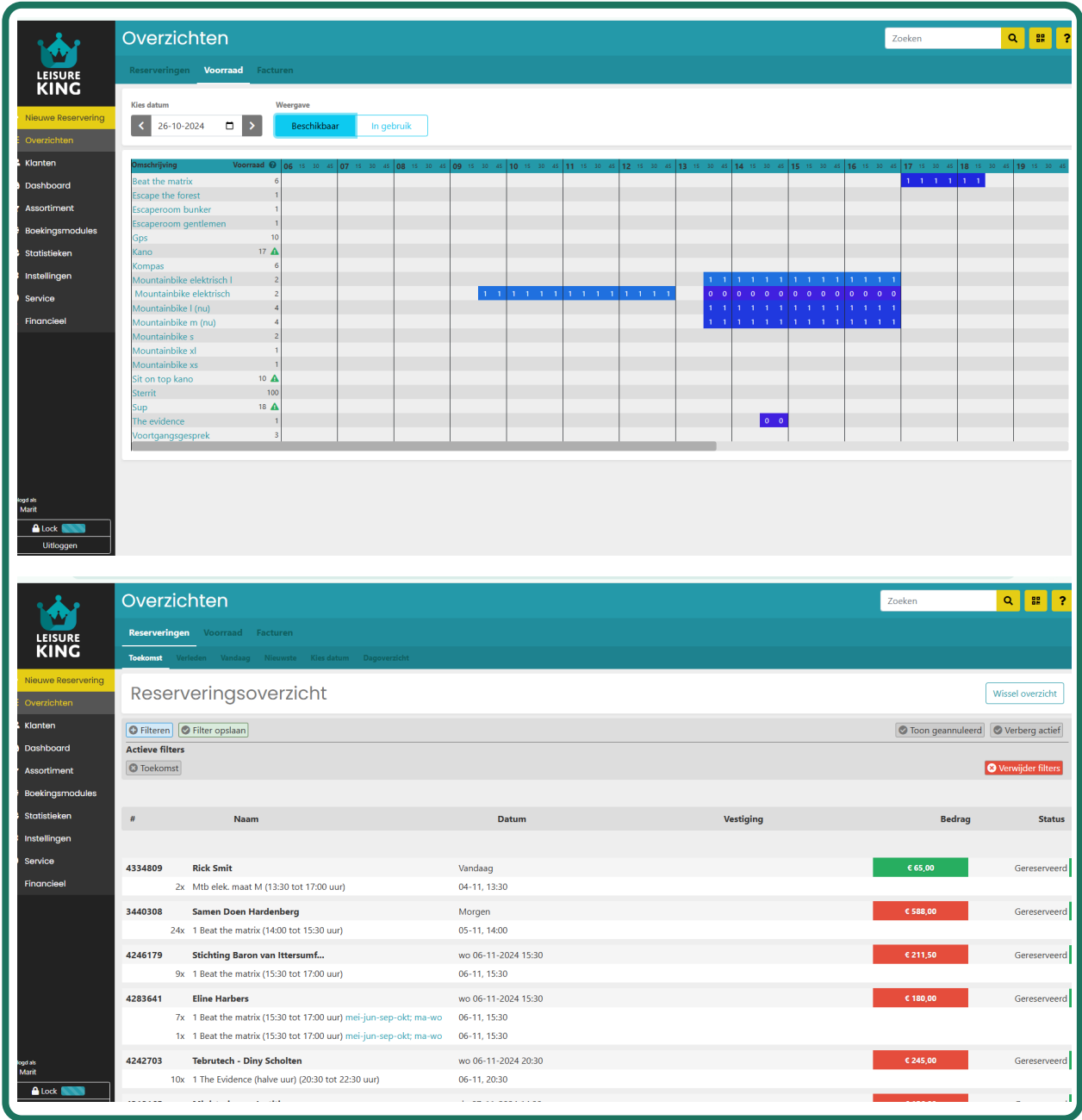


*Figure 14: Planning board and reservation overview Leisure King*

Another feature of Leisure King is the ability to close the shop, preventing further online bookings when this is not desired. Leisure King also allows for price differentiation based on time slots per day or specific periods.

Other than that, Leisure King is not used much, as the reservation process is automated in this system.

However, Leisure King's functionalities are quite limited when it comes to setting up or modifying activities. There are fewer customization options available compared to Stratech, and for De Wilgenweard it only

serves for managing online reservations. For online reservations, the system functions well. However, it does not have a proper planning board or another way to provide a good overview and planning of the reservations that are made. Without this overview, it becomes much harder for employees to manage the other reservations that cannot be booked online. This relates to the UX element of Usability.

De Wilgenweard did, however, decide to continue using one reservation system, and as Leisure King would not be suitable for this, the decision was made to also stop the collaboration with them, and search for a

completely different system that can fulfill the tasks of both Stratech and Leisure King.

## Challenges working with two systems

Despite the functionalities of both systems complementing each other, working with two separate programs creates several challenges.

Information about online bookings is visible in Leisure King and needs to be manually transferred to Stratech to keep the availability up to date in the main program. However, when a reservation is made via Stratech, and it involves an activity that is also bookable online, information from Stratech needs to be transferred to Leisure King as well. This step is important to ensure synchronized availability for online reservations, but it also creates duplicate data entry and increases the risk of errors, such as forgetting to update one of the systems, which can lead to overbooking or scheduling conflicts. This relates to the UX elements effectiveness and efficiency.

The availability of an activity not only depends on the space available or materials in stock, but also on the availability of suitable personnel. Some activities, such as climbing or activities involving higher safety risks, require specifically qualified personnel. Personnel are trained in different degrees, so not all employees have the same certifications. Also, there needs to be sufficient staff available for all the activities at the same time. Stratech allows employees to make availability decisions based on the overview of bookings provided by the planning board, as well as their knowledge and experience about it, while Leisure King automates availability based solely on material stock. When it is a busy day, or if the planning maker thinks there will not be enough personnel for more activities, the online reservations can be locked so no one can make a reservation anymore, for a specific activity or for all activities.

To conclude, the use of two separate systems (Stratech and Leisure King) creates inefficiencies and increases the chances of mistakes, such as overbooking or scheduling errors. A unified system like Nostium could potentially streamline the reservation process by integrating features from both Stratech and Leisure King, reducing manual work and improving accuracy.

# The new system: Nostium

Before Nostium was introduced at De Wilgenweard, there had been searched for another reservation system that could meet all their diverse requirements. Due to the wide variety of activities offered at De Wilgenweard, no system was found that fulfilled their needs. Then, Nostium emerged as a promising solution. For the first time, De Wilgenweard believed a reservation system could address their demands, leading to the decision to replace their old systems with Nostium. This relates to the UX element delightful.

A personalized account was created for De Wilgenweard, and Nostium assisted in setting up the system. This setup, however, was not good enough to be able to integrate it in their company and start fully using it yet. This section introduces Nostium, explaining its functionalities, and evaluating the customized setup created for De Wilgenweard.

## Functionalities of Nostium

In Nostium, De Wilgenweard operates within its own environment. After logging in, the user is led to the dashboard page. Every user has their personal account. Different roles for each can be selected, which determine the rights they have on the platform. For example, editing or deleting rights, or only filling in reservations, or simply viewing the available information.

The dashboard serves as the home page. On this page, several widgets are shown, such as a reservation overview, a check-in option to forward the reservation to the cash register, and employee messages. The dashboard has a fixed layout and can only be changed by requesting this change to Nostium.

On the left side of the screen of the system, a navigation menu is shown, enabling access to the other pages in the back office. The most important features for getting an understanding of the system are outlined below.
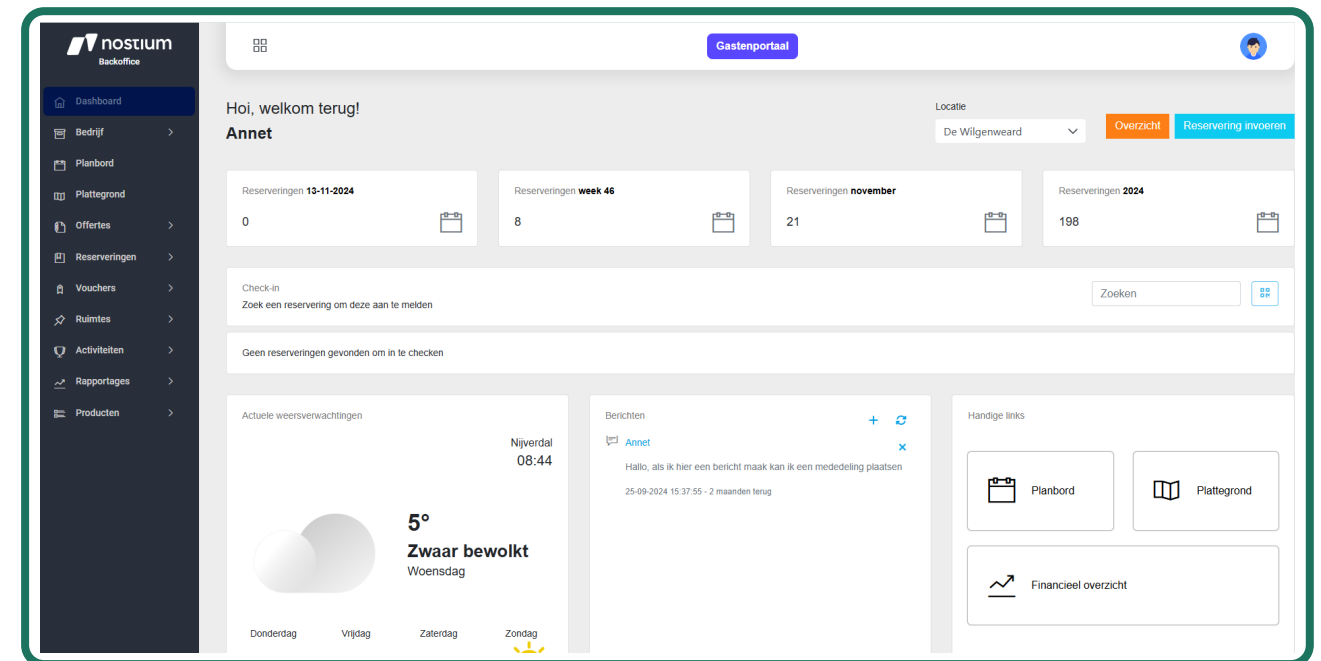


*Figure 15: Dashboard Nostium*
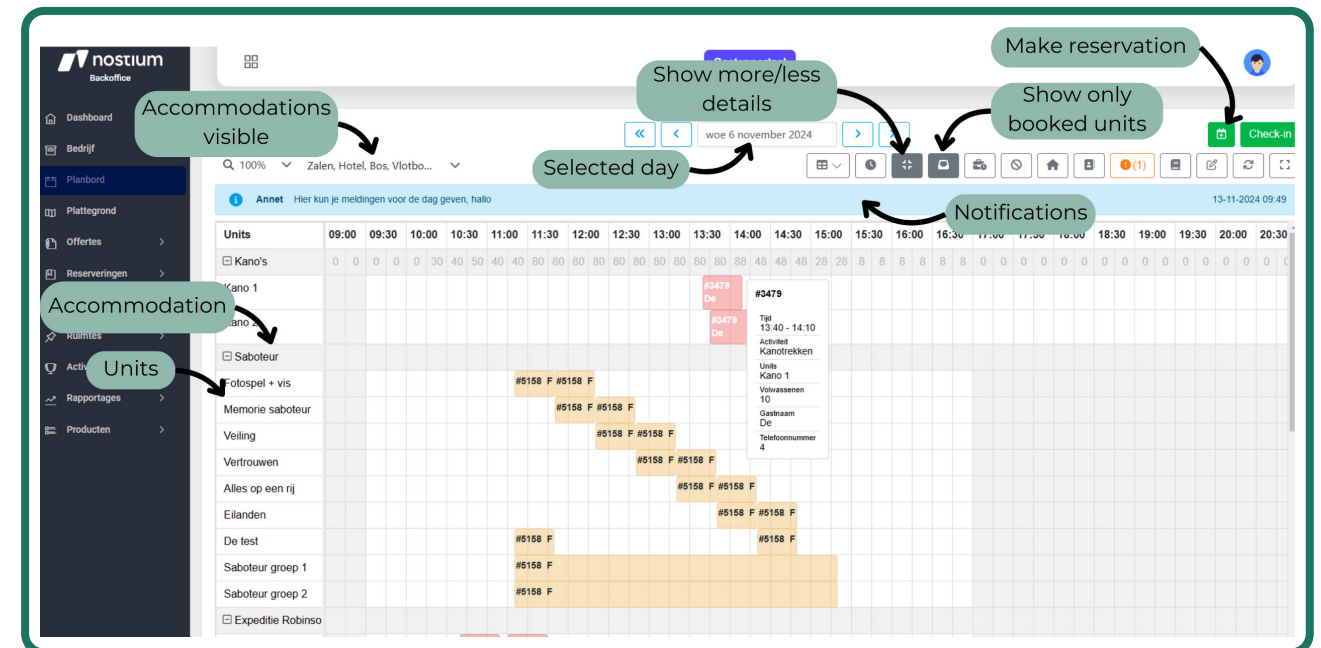


*Figure 16: Planning board Nostium*

### Planbord (planning board)

The planning board provides a day-by-day visual overview of all reservations, similar to the planning board in Stratech. Reservations are displayed in designated time slots, but Nostium organizes the reservations in the left column by accommodation and its units where the reservation takes place in, whereas in Stratech the left column lists the activities that are booked. Accommodations and units represent the location where the activity takes place, more information about this can be found on page 42. Getting used to another layout may take some time for the user. This relates to the UX elements usability and learnability.

Via the planning board, it is possible to make reservations and to check in guests. To search for a specific reservation, the accommodations can be filtered, or there is the option to select showing of only the reserved accommodations.

A reservation visible on the planning board shows the time slot, reservation number, name, and the price. Hovering over a reservation reveals additional details such as the activity name, group size, and contact information. Selecting the reservation shows all reservation details. Reservations on the planning board are color-coded by activity type.

The planning board is the main place to get an overview of the reservations and availability of space on the selected day.

In figure 16, several aspects of the planning board, such as the different buttons and settings, are indicated.

### Plattegrond (map)
The next page, the map, shows all accommodations and their reservations for the current day. A single accommodation or all accommodations can be selected. The map displays the reservation details per unit of the selected accommodation(s). It is not possible to switch to other days. Additionally, reservations cannot be created via this page. The name suggests you would get a visual overview of a map indicating where everything takes place, but this is not the case.

Because of the variety of accommodations and activities, it doesn't seem feasible to get a clear overview of the reservations and availability on this page. Also, the non-active, archived accommodations are still present, which is confusing. A good overview of all the items that are booked is hard to get because the screen won't fit more than five units on it. De Wilgenweard likely has too many possibilities to make this page useful. The UX element usability is related to this.

### Ruimtes: accommodaties en units (accommodations and units)
The spaces and locations used by De Wilgenweard are translated into Nostium as accommodations and units. An accommodation resembles a place where activities take place, e.g., a restaurant, bowling alley, or laser gaming room. Every activity needs to be assigned to an accommodation. Multiple activities can be assigned to the same accommodation, but a single activity cannot be assigned to multiple accommodations. Within accommodations, units can be created. A unit is the physical part on which an activity takes place. It can be considered the bookable part, such as a table in a restaurant, the separate bowling alleys in a bowling club, or the laser guns within the laser gaming venue. The units define the availability for an activity. Multiple units can be created within an accommodation. It is not mandatory to assign units to an accommodation.

### Activiteiten (activities)
Everything that can be booked, such as activities and extra options to a reservation, can be created and adjusted via the Activities menu. Multiple pages are present: Activities, Packages, Options, Option groups, and Discount code.

### Activities
On the Activities page, activities can be created and their setup maintained. This is the core of the system; the things guests can reserve. It is the bookable part for which reservations can be created. Details like duration, group size, and price need to be set up when creating an activity. Also, an accommodation must be chosen where the activity takes place.

### Arrangementen (packages)
Packages group multiple activities into a single offering, such as a program combining an activity with a meal. A package can be a fixed set of activities, or a (semi) self-chosen program by the guest. Packages are useful when guests want to do multiple activities.

### Options
The Options page is for adding extras to a reservation. Options can be used in various ways. For example, options can be used to encourage additional sales, offer something for free, or provide guests with a choice or question when booking an activity or a package. When an option is connected to an online booking, the guest will see this in an extra screen during the reservation process. This can, therefore, affect the final price the guest will pay.

In addition to the existing options that can be created, options can be bundled into an option group. This is useful for offering a set of options for a specific activity or package. An option group is also used to provide guests with a mandatory choice.

### Reservations
Via the Reservations page, it is possible to make reservations or view existing reservations. To create a reservation, the following information must be known: guest information, activity details, and optional choices to supplement the reservation.

Within the making of a reservation, the first tab shows all fields to enter guest details, such as contact information, the reason for the reservation, or extra comments. In the

Activity tab the activities can be chosen and all specifications for that. The last tab, the Product tab, is used to add separate products to a reservation, such as cup of coffee or a plate of fries.

Reservations can be created on various pages of the system, including the Reservations page, Planning board, Quotations page, or Dashboard.

### Offertes (quotations)
In the Quotations menu, quotations can be created and viewed. It also provides an overview of the debtors. Additionally, a reservation can be generated as a quotation. When this is done, price options become visible and adjustable during the reservation process. If a reservation is not created as a quotation, this feature is not available.

### Producten (products)
Separate items can be added to the system via the Product page. Examples include items like a cup of coffee or tea.

### Rapportages (reports)
The Reports page allows employees to export various types of reports. These reports include reservation details sorted by activity, date, package, timeline, and more. Users can select a specific timeframe for which the report should be generated.

## Initial set up Nostium for De Wilgenweard
After purchasing the new reservation system, Nostium assisted De Wilgenweard in setting up the program for them to tailor their personal account to suit their needs. To facilitate this process, De Wilgenweard received an Excel sheet, the implementatielijst, that had to be filled in. The document included detailed instructions on how to fill out the sheet and what information was required. By completing this file, De Wilgenweard provided Nostium with key information about their system requirements, which were then used to create a tailored setup of the reservation system. The gathered information can be found in Appendix B.

This led to the initial version of Nostium specified for De Wilgenweard. In this section, the working of this setup is examined by testing some key tasks and evaluating the setup of different features, to discover the issues with this version.

### Making a reservation – employee side (back office)
As mentioned in the previous section, there are multiple ways to make a reservation. Regardless of the option chosen, the fundamental process remains the same. Making a reservation via the back office is done by an employee, who must enter information about both the guest and the activity. Figure 17 provides an example of the creation of a reservation, showing the required information.

However, the information about some activities was incomplete or illogically organized, which led to difficulties in completing some reservations. One common issue was insufficient space to accommodate the desired activity. This problem has to do with the way units are assigned to an accommodation and to the activity. As mentioned before, each activity is linked to a single accommodation, meaning there is no option to choose where an activity takes place. It is automatically assigned to the linked accommodation. In reality, however, many activities can occur at different locations. This means that in reality there is more availability for the activities than is reflected in the system. This relates to the effectiveness and usability of the system.

Figure 17: Reservation screen Nostium - choosing an activity

## Making a reservation – guest side

Via the guest side, reservations can be made directly by the guests. The guest portal should be linked to De Wilgenweard's website. However, the link between the website and the guest portal has not yet been established. To try out and review the guest portal, it can be accessed through the back office in a trial version. Although for every activity a link to the guest portal can be established via the back office, enabling

making online test reservations for specific activities, the general guest portal is not yet set up. This means that it is not possible to go through the entire booking process from the home page up to payment from the guest's perspective.

The reservation process in the guest portal appears to be standardized for all activities. However, for some activities additional specifications or explanations are needed to



Figure 18: Home screen guest portal Nostium

ensure the guests can successfully complete their reservations.

## Visibility of reservations in back office

Understanding how reservations appear in Nostium is essential for effective use of the system. Reservations can be accessed and reviewed in several locations.

The planning board provides a visual overview of all reservations in the timeframe of a day. Each activity here has its own color. It is notable that reservations take up significantly more space compared to the planning board of Stratech. Due to the large number of activities and the amount of space they occupy on the planning board, it seems hard to obtain a clear overview of all reservations and available slots on this page. Additionally, only accommodations with assigned units appear on the planning board. This makes it difficult to create a complete overview of all reservations for a given day. These issues fit to the UX elements usability and effectiveness.

The map page displays which units are currently in use for each accommodation, However, as noted previously, only a limited number of units can be shown on a single screen, which may hinder usability.

The reservations page provides a sortable list of reservations. Users can organize reservations by activity date, reservation date, activity, status, guest name, or reservation number. This functionality makes it easy to find a specific reservation if the relevant details are known. Additionally, the reservation page allows users to filter and view unconfirmed reservations, making it convenient to identify guests who need to be contacted for confirmation.

The report page provides exportable sheets with reservation data. Different lists can be generated, depending on the information needed. This feature could be useful for creating employee schedules or for purchasing data.

## Information about activities in the system

For the reservation system to function correctly, it is essential to accurately configure accommodations, activities, packages, and options associated with reservations. The following section discusses these parts, and opportunities for

improvement are pointed out.

**Accommodations**

Accommodations were defined via the impelementatielijst Excel sheet and created within the system by Nostium. Most activities were assigned to their own individual accommodation, as this seemed to be the most logical approach. However, this does not reflect reality, where locations can host multiple activities, and activities can take place at various locations. In Nostium, each activity is limited to a single accommodation, making it impossible to directly translate this real-world scenario into the system.

Additionally, the concept of units seemed unclear during the setup process. Some accommodations did not have any assigned units, meaning they do not appear in the planning board. As previously mentioned, this lack of visibility creates significant inconvenience. To improve functionality in future iterations of Nostium, units must be assigned to all accommodations to ensure a complete and practical overview.

**Activities**

The list of activities displayed in Nostium appeared to be quite complete. Most activities were present and most of the standard information, such as group size and activity duration, was already filled in. However, many additional settings still needed to be configured for the activities. While the basic information is enough for some activities, others require more detailed specifications. For instance, allowable start time for an activity, price differentiations, specific automated email notifications, and adjustable time durations all need to be defined. It is essential to identify the specific requirements and details for each activity and ensure they are accurately entered into the system.

**Packages**

A package consists of multiple activities combined into one offering. Typically, a package is viewed as a whole program put together for the day, for instance an activity followed by dinner. For De Wilgenweard, packages are larger activities made up of smaller predetermined activities that together make one activity. Some packages have activities that are exclusively part of that package, while others consist of activities that can also be booked individually.

For activities exclusive to a specific package, creating them as separate activities might seem unnecessary. So why isn't a package simply treated as an activity in Nostium? The current setup ensures that the order of activities within a package can be determined and can be changed. This allows for scheduling the appropriate employees for each activity, as not all employees are qualified to supervise every type of activity within a package.

However, the effectiveness of using packages in this way is questionable. It appears impossible to include multiple packages in a single reservation, but in reality, it happens that multiple packages are booked for one reservation. Nostium restricts reservations to one package at a time. It is, however, possible to combine a package with an individual activity in a single reservation.

Next to that, the implementatielijst only provides the possibility for creating packages consisting of a maximum of four activities, but in reality, packages often consist of more than that. Also, most packages are not yet configured in Nostium and the activities they consist of are linked to different accommodations. This division might not be the most practical way. Further investigation is needed to determine the optimal way to structure packages within Nostium.

**Options**

Options are the additional extras that can be booked within a reservation. Examples include an all you can drink deal, snacks during an activity, or a specified buffet package. In the initial version of Nostium, most options are food related.

When an option is added to a reservation, it is not immediately visible on the planning board. It is only visible when opening the specific reservation, not when simply hovering over the reservation. This results in a lack of a clear overview of the booked options, but such an overview is desired to have.

An option is not bound to a specific time or place within the system. However, in reality this is often necessary, especially for food-related options. For instance, if a dinner is added to a reservation, it does not have a designated time slot in the planning because the system assumes it

occurs during the activity's time. In reality, a dinner often happens after the activity and requires both time and space. It needs to be considered carefully which options require time and space, and what the best way to represent this in the system is. The optimal way to use options in the reservation process should be determined during further development.

**Artikelen (products)**

Products are individual items that can be added to a reservation, such as a cup of coffee or a drink. This functionality is not yet used in the initial version, as no products were added to Nostium. Products may be a solution for improving the options feature.

# Phase 2 Define

In the previous phase, a lot of information was gathered to aid in setting up the new reservation system. This included identifying the activities to be incorporated, understanding the general workings of the system, determining who will use it, clarifying its purpose, and addressing the relevant UX elements. Together, this is a lot of information. The goal of this phase is to organize and structure the gathered information to define the focus points, requirements, attitude towards using the system, and expectations for developing the program in the right way.

Additionally, Nostium has provided a startup guide for setting up the reservation system, which serves as a starting point for the development phase. This guide and the approach are discussed in this phase as well.

# Influence of UX elements and focus points

In the previous phase, the relevant UX elements were linked to the retrieved information. In this phase, meaning is given to that information. Each element is evaluated, and it is indicated whether it has a positive, negative, or neutral influence on the attitude towards using the system. An overview of all the elements and their influence is summarized in table 1. The most important elements are discussed in more detail in the following sections and are considered the main focus points for the next phase. These points should be carefully considered during the setup of Nostium for De Wilgenweard. A complete overview of all elements and its influence can be found in appendix D.

| UX element | Description | Influence |
|---|---|---|
| Effective | A one-size-fits-all setup for the reservation system might not be suitable for each activity, as the offer of De Wilgenweard is very diverse. | Negative. The initial version is not effective to all the different aspects yet. Customization is needed. |
| Effective | A lack of clear information to external stakeholders could result in operational issues, such as insufficient stock or overbooking of materials. | Negative, as mistakes do not contribute to a good operation of the system. |
| Desirable | The sales team consists of different types of people. The mix of experienced and relatively new employees, as well as the age difference, creates a dynamic where some users are highly familiar with the old systems, while others are less accustomed and potentially more open to adapting to the new system. | Both positive and negative. Experienced users know how to manage the old systems, while unexperienced users stumble over the flaws of the system and are open to something new. Whereas something new need time and effort to get used to for the experienced users. |
| Efficient | The sales team has to check Leisure King regularly on new reservations and must transfer incoming reservations from Leisure King to Stratech manually to ensure availability remains up to date in their main reservation system. The other way around as well. | Negative, as users need to execute duplicate work. |
| Effective | Working with two different systems increases the chance of making mistakes. If a reservation is forgotten to be transferred to one of the systems, it is possible that overbooking happens. | Negative, as mistakes do not contribute to an effective system. |
| Efficient | Stratech requires some manual adjustments when reservations are created in the system. | Negative. Users often have to manually adjust settings. This takes extra time. |
| Useful | The existence of the planning board appears very useful and is a function users use much | Positive. This function makes it possible for the users to have an overview of the availability of activities and with that they can make reservations. |
| Usable | Leisure King's functionalities are quite limited when it comes to setting up or modifying activities. | Negative. Although the online reservations work well, Leisure King is perceived as insufficient to work with as their main reservation system. |
| Delightful | De Wilgenweard believes the new reservation System Nostium can address their demands. | Positive. There is confidence in the working of this system |
| Useful/learnable? | Organization of the planning board differs from Stratech and Nostium. There is a different layout and working of the planning board where users need to get used to. | Useful negative, as it may cause confusion. However, it is a process of getting used to. Learnable is therefore positive. |
| Useful | It is hard to get a good overview of all the items that are booked via the map page. | Negative. De Wilgenweard has too many possibilities to make this feature useful. |
| Useful/effective | Each activity is linked to a single accommodation, meaning there is no option in choosing where an activity takes place. In reality, however, many activities can occur at different locations. | Negative, the system cannot reflect reality, this affects the usefulness. Effectiveness is also negative, as there needs to be worked with an alternative solution. |
| Useful/effective | It is noticeable that reservations take up significantly more space compared to the planning board of Stratech. Due to the large number of activities and the amount of space it occupies on the planning board, it seems hard to obtain a clear overview of all reservations and available slots on this page. | Negative. The planning board uses more space than users are used to. It is, therefore, harder to get a good overview on the planning board. |
| Useful/efficient | When an option is added to a reservation, it is not immediately visible in the planning board. This results in a lack of a clear overview of the booked options, but such an overview is desired to have. | Usefulness is negative, because the overview the users need is missing. Efficiency is negative, because it costs more work to find the information. |
| Effective | It appears impossible to include multiple packages in a single reservation, but in reality, it occurs that multiple packages are booked for one reservation. | Negative. The system cannot translate reality into its working. |
| Efficient | The reservations page provides a sortable list of reservations. Users can organize reservations by activity date, reservation date, activity, status, guest name, or reservation number. | Positive, as a lot of relevant information can be retrieved via this page. |

*Table 1: UX elements and its influence*

### Activities and accommodations

To start with, an activity in Nostium is required to be coupled to an accommodation, but it can only be coupled to a single accommodation. However, in practice, many activities at De Wilgenweard take place across multiple locations. The current setup does not reflect reality. Problems occur when directly translating locations into accommodations in Nostium, as some accommodations are not functioning as intended. Investigation into how to use accommodations in alternative ways needs to be executed to find a way to work around this limitation. Also, the functionality of units needs to be explored further, as this functionality makes accommodations invisible when none are assigned to it.

### Availability of activities

Another point is the availability of activities in the system. In reality, determining whether an activity can take place depends on various factors, such as the availability of materials, space, or both. Nostium tracks the availability by using units within accommodations. However, this tracks only one of these availability needs. It needs to be investigated whether it is possible to track both types of availability and implement a solution accordingly.

### Packages

The third focus point concerns the packages. While packages allow easier booking of a set of activities, many were missing from the system, and those that exist lack a lot of information. All activities belonging to a package were not yet created, and activities that do exist were placed in several accommodations, making it confusing to manage them. Reorganization is necessary here.

Another issue with packages is that Nostium only allows one package per reservation, whereas in reality, it may happen that multiple packages are booked together. Alternative ways to set up and manage packages, or even reconsidering their use entirely, should be explored.

### Options

There are already a lot of options in the system. In the initial setup, options serve multiple purposes. Clarification regarding these different purposes is desired, to determine whether multiple purposes are practical and what the best approach is

to use them. Additionally, it may be worth exploring whether options could help in solving the other discovered challenges. The usage of option groups should be investigated as well, as these structures the options and could possibly enhance usability.

### Notable differences between Stratech and Nostium

The differences between Stratech and Nostium might cause confusion for the users. Extra attention should be given to these differences during the transition from Stratech to Nostium and the integration within the company.

One of the first visible differences is the planning board. At first glance, it appears they offer the roughly the same functionalities but differ in appearance. They both show the timeframe per day and the booked activities. However, Stratech offers a more compact view, allowing more information to fit on a single screen. In contrast, Nostium provides much less space to display activities on the screen, which makes it challenging to create a clear overview of the bookings at a glance, given the high number of activities available at De Wilgenweard. This makes it difficult to determine the availability of the day. Finding ways to improve Nostium's planning board or exploring alternative methods to create a better overview needs to be done.

Another difference is the color usage within the systems. In Stratech, the colors are used to make a distinction between reservations, while in Nostium the colors are used to make a distinction between the different activities. This difference could result in confusion. To ensure a smooth transition, extra attention should be paid to this aspect.

### Customizability

Another point, which is not a challenge, but might be worth looking into is the customizability of pages within Nostium. For example, the dashboard includes several widgets, but it is unclear whether they are all relevant for De Wilgenweard. Investigating whether the dashboard and also other settings, such as guest information input fields or standardized email templates, can be customized to meet specific needs would be beneficial.

# Requirements

After carefully analyzing the challenges, functionalities, and focus points identified in the previous phase, a list of requirements has been created. The requirements outline the functionalities Nostium should at least adhere to for successfully replacing the current systems.

| Number | Requirement |
|---|---|
| 1. | Nostium should completely replace the old systems Stratech and Leisure King. |
| 2. | All active activities of De Wilgenweard should be integrated into Nostium. |
| 3. | The system should be able to keep track of the availability of activities. |
| 4. | The system should support price variations of activities across different time periods. |
| 5. | Automated emailing should be integrated into the system. |
| 6. | The reservation system should integrate with other systems:<br>    a. the website of De Wilgenwerad<br>    b. the cash register system<br>    c. the payment system<br>Preferable integrate with those programs already in use |
| 7. | All activities that were alrady bookable online should remain online bookable. |
| 8. | Employees should be able to make changes to resrevations, including:<br>    a. adjusting the number of people attending<br>    b. changeing the activity<br>    c. customizing costs for specific groups |
| 9. | Employee planning should be made with information retrieved from the reservation system. |
| 10. | Employees should be able to make changes in the system, including:<br>    a. creating a new activity<br>    b. changing the details of an activity |

*Table 2: List of Requirements*

# Attitude towards using

Switching to a new reservation system impacts the company, bringing both challenges and new opportunities. The primary challenge can be summarized as follows: the translation of reality into the computer system. Nostium is a platform designed in a specific way, with certain functionalities, while De Wilgenweard has its own way of working, a particular setup of activities, and its mentality to uphold. A direct translation of De Wilgenweard's processes into Nostium's system is impossible. Finding ways to work around the issues is critical to ensure that the system functions effectively for De Wilgenweard.

Despite the challenges, De Wilgenweard chose Nostium as their new reservation system because it meets their most important needs:
- It is compatible with their cash register, MplusKassa;
- Online reservations are possible;
- Nostium serves as a reservation system for many different companies, supporting a wide range of activities, including rentals, dining, overnight stays, and events;
- Price differentiation is supported.

The users' attitude towards the change and the new reservation system is generally positive. It was indicated by employees by asking around, that it is well understood that introducing a new system is necessary and the only option.

However, there are a set of expectations for the new reservation system, both from the users' perspective and the author's perspective, that must be addressed to sustain this positive attitude.

With the change from two systems to one, it is expected that fewer mistakes will be made. Working with two systems has been very inconvenient, requiring duplicate work and increasing the risk of making mistakes by not putting all information in both systems. The risk of overbooking will also decrease, and the overall workload will be reduced since only one system is used. This increases the efficiency.

Next, it is expected that making reservations will be easier in Nostium. The reservation process in Stratech has been somewhat complex and not completely logically structured. This often results in manually adjusting reservations. Although the settings in Nostium still need to be figured out, it is expected that with the many possibilities Nostium provides, the system allows for an optimal setup. This increases the effectiveness and usefulness, as well as the efficiency.

Nostium has its own guest portal that enables online booking. While the portal is designed to make activities bookable by guests, it is expected that not all activities will be suitable for online booking, because guests often wish for a tailor-made program. For some activities, there are too many things to take into account to make them suitable for a simple online reservation. Integrating all activities into the system in a way that supports online bookings may therefore be challenging.

Despite not all activities being suitable for online booking, it may be interesting to explore how these activities can still be best configured within the system for potential online booking. It is expected that in addition to the originally online bookable activities, more activities will be suitable for online booking in Nostium. With the right setup, it may be easier to prepare for future online bookable activities.

The development of the reservation system for De Wilgenweard is carried out in the perspective of the company, so the best way to work with the program for the employee side is sought. This focuses on the back office of the system. Although the guest portal is an important component of the system as well, the primary focus will be on setting up the back office to meet the needs of employees, ensuring a streamlined and efficient reservation management process and improving the learnability and efficiency of the system.

# Further steps

To go further from the initial set up and develop a system that is more tailored to the needs of De Wilgenweard, adjustments need to be made. It is wise to use the guide Nostium provides on their support page as a guideline for setting up the reservation system.

The guide outlines ten steps, see table 3. Steps one to three have already been completed by De Wilgenweard. Therefore, it is assumed that this information is accurate. From step four onwards, it gets interesting. Steps four, five, and six are specifically for setting up the system to make reservations work. First, the accommodations need to be defined. Then, activities can be created, adjusted, and assigned to the right accommodations. Additionally, the activities required for the packages need to be set up so the packages can be created afterward.

Step seven is about refining details to make the system work more efficiently. Step eight guides in setting up the guest portal. Step nine is a check-up to make sure everything is correct. The last step links the website to the reservation system, with which the guest portal becomes available for guests.

Furthermore, Nostium provides a support portal where all kinds of articles are available about the functionalities of Nostium. Articles about setting up accommodations, activities, and packages are available as well. This support page is useful to consult during the development process.

| Step | Explanation |
|---|---|
| 1. | Start by setting up the highest layer namely: **Location.** |
| 2. | Now go add **Colleagues** to this location. |
| 3. | Specify the various **turnover groups** where the turnover from an activity or option should be booked. |
| 4. | Start now by indicating the **Spaces & Units** that are there. |
| 5. | We will now assign **activities** within these spaces. |
| 6. | Do you want to combine activities into **packages.** |
| 7. | Now link a standard or unique **email template** to all the activities or packages |
| 8. | We are now going to start with the general reservation page, also called the guest portal. For this we are going to start with creating **Categories & subcategories**. Where you will ten link your activities and arrangements that are the guest can book themselves. |
| 9. | Always check the settings again based on this step-by-step plan. Is something not right? Then check the settings and test again. |
| 10. | The final step is to link the unique links of the guest portal, categories, subcategories, activities or packages to your website. |

Filled in by company

An account was created for the author

Executed by company supervisor

Information retrieved via Implementatielijst, but needs revision

Not yet executed at the start of the assignment

*Table 3: Guide for setting up system, provided by Nostium*

# Phase 3 Develop

The initial setup provided by Nostium itself, as discussed in the discover phase, is not yet ready to use. Now that the challenges and focus points have been defined, actual changes to the setup can be made. This phase follows the steps of the startup guide introduced in the previous phase.

The development process begins with setting up accommodations and units. After that, activities are created and linked to the right accommodations. Next, the packages, options, and articles are set up. Each section will be discussed and iterated upon in consultation with the company supervisor until the most suitable setup is achieved before moving to the next. Since most parts are in some way connected to each other, it can be challenging to proceed if the previous steps are incomplete or improperly set up. On the other hand, information from a later step may be needed to define the setup of earlier sections, requiring an iterative and consultative approach throughout the process.

Test reservations are executed to evaluate the individual parts. The tests consist of fictional reservations that each focus on a single part of the system.

# Setting up accommoda-tions and units

To create the right accommodations, the activities for which they should function need to be known. As described in the define phase, challenges include improving the overview of reservations made in the system and translating the company and its activities into a structure that works for both the reservation system and De Wilgenweard.

To improve the overview on the planning board, the number of accommodations in the system is reduced. Fewer accommodations create more room for activities to show on the screen. The visual rows of accommodations in the planning board occupy space but are not useful. Reducing these nonfunctional rows will create more room to display meaningful information. Figure 19 shows what the effect is of reducing the number of accommodations on the visibility of information on the planning board. More reservations can be displayed in top example. The number of grey bars is reduced to only one, which increases the number of units visible on a screen. This increases the

number of booked activities visible in the planning board on the screen and improves the overall overview.

To achieve this, a grouping of the accommodations and activities has been made. In the initial version, almost every activity was assigned its own accommodation, but in reality, multiple activities take place in the same room, sometimes even simultaneously. Additionally, most activities are in reality not tied to a specific room and can take place in different rooms. It is not possible to simulate this in the system as it is set up in the initial version.

To deal with this, accommodations and activities have been grouped logically. Instead of assigning an accommodation to every activity, spaces where activities are actually conducted have been identified and grouped. An overview of all the spaces and activities organized at De Wilgenweard is shown in figure 20. The middle column shows all locations, while the side columns show all activities organized by De Wilgenweard. The colored dots indicate the spaces where the activities can take place. This illustrates that many activities occur in multiple places, which is not possible to simulate in Nostium. Therefore, a better division of accommodations in Nostium has been created, and will be discussed in this section.



*Figure 19: Difference in planning board with and without multiple accommodations*



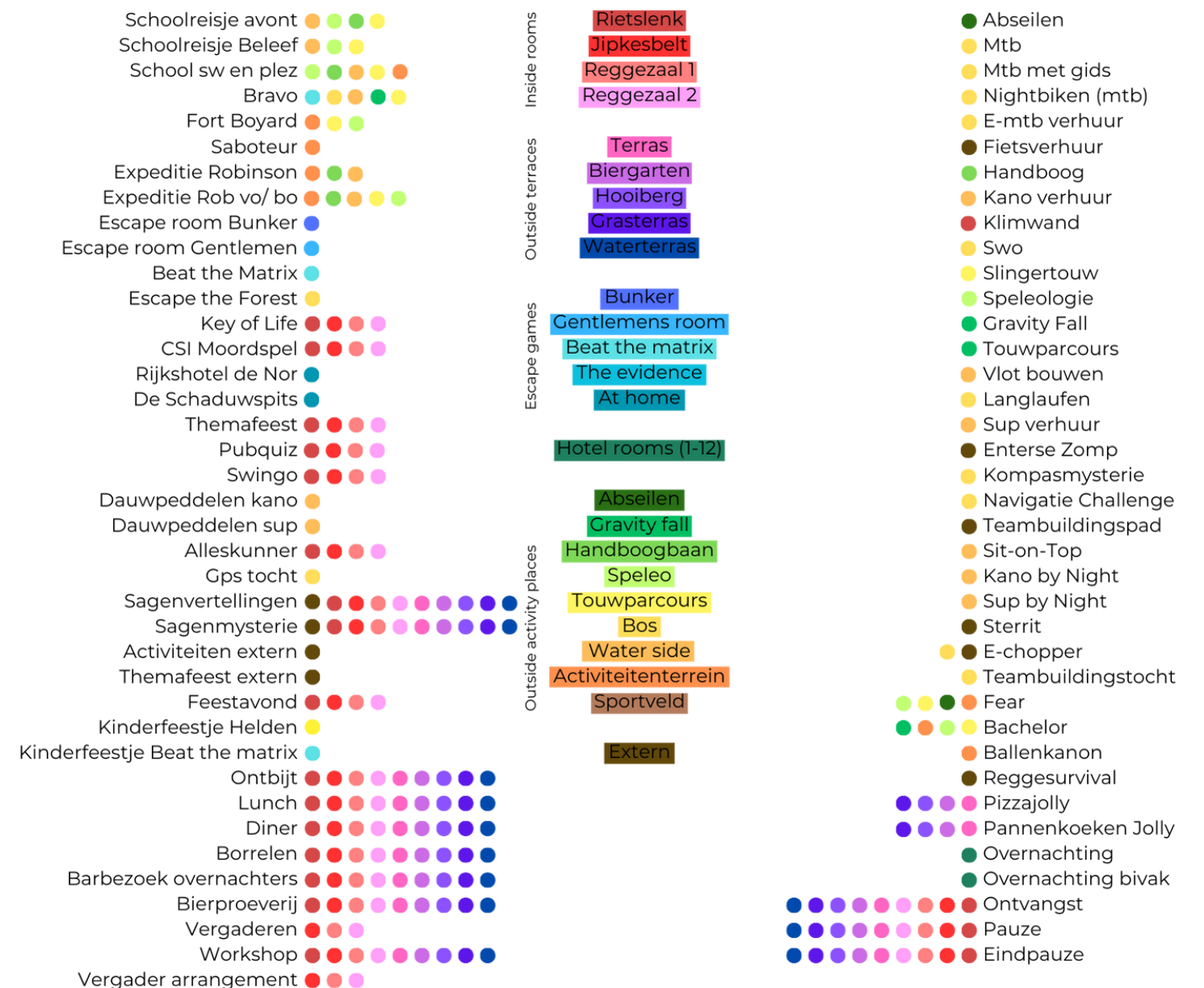## Locations at De Wilgenweard were activities take place

*Figure 20: Representation of places where activities take place at De Wilgenweard*

## Rooms

The rooms at De Wilgenweard host a variety of activities, such as meetings, activities, dining, and more. It is important to know for each room whether it is in use and the maximum number of people that fit inside to assign reservations. In the initial version, each room had its own accommodation, with units representing tables or the number of groups inside that were available within that accommodation. However, this approach proved impractical because in each of these rooms the same activities take place. As previously mentioned, Nostium does not allow an activity to be assigned to multiple accommodations. A possible solution could be to duplicate the same activity multiple times and assign them to the different accommodations. However, this would cause issues. Since the system treats them as separate activities, there is no link between them, and it would be impossible to accurately track availability across the rooms, increasing the likelihood of making errors regarding availability.

A better solution would be to create a single overarching accommodation for all rooms and assign each room as a unit to the accommodation. The room activities can be assigned to the overarching room accommodation. This way, each activity exists only once in the system but can take place in all the units defined as rooms, allowing availability to be tracked correctly.

It was decided in consultation with the company supervisor to implement this solution. An overarching accommodation called Zalen was created. Each room was added as a unit within this accommodation, and all activities that could take place in the rooms were assigned to Zalen.

This approach allows for activities to take place in different spaces, and the overview in the planning board is improved because fewer accommodations are in the system now.

## Escape games

De Wilgenweard offers several escape games, including escape rooms, escape games that can be played at home, and escape dinners. An overarching accommodation Escape games has been created for the escape games.

### *Escape games at home*

The escape games at home do not take place at the location of De Wilgenweard, they are not tied to a physical location at all. Guests can play them anywhere and at any time, without requiring supervision by the company, availability tracking, or materials, which is very different from the other escape games. Therefore, it is illogical to place them under the Escape Games accommodation. Instead, they are placed under the Thuis accommodation. More details can be found on page 62 about this accommodation.

### *Escape dinners*

Escape dinners are hosted at tables in the rooms at De Wilgenweard. Therefore, the escape dinners are assigned as activities to the Zalen accommodation instead of the Escape games accommodation.

### *On-site Escape games*

The escape games that have their own physical space at De Wilgenweard: Beat the matrix, Escape the Forest, Gentlemen's room and the Bunker fit under the Escape Games accommodation. Each game has its own unit(s) within this accommodation.

Placing these escape games together decreases the number of accommodations, as shown in figure 19.

## Hotel

De Wilgenweard offers twelve hotel rooms where guests can stay overnight. Each hotel room is assigned as a unit within the accommodation. The number of beds inside each hotel room determines the maximum number of people allowed per unit. It is essential that the system allows flexibility in guest preferences. For instance, if guests prefer not to share a room, the number of guests should not automatically be filled to the room's maximum capacity, but it should be adjustable to meet the guest's requirements. At the same time, fewer beds in use per hotel room means less space for guests and thus fewer paying customers. Adjustable pricing is required here.

There was another overnight stay option, camping, but this is not relevant anymore as the camper spots have closed. Therefore, this is not considered in the grouping of the accommodations anymore.

## Outdoor activities

De Wilgenweard offers a wide range of outdoor activities, categorized into supervised activities and unsupervised activities. Some larger activities consist of multiple smaller activities as well. The outside group contains the most activities, and a better subdivision here is needed.

### *Terrace*

While terraces are officially outdoor spaces, they are grouped under Zalen since they serve the same purpose as the other rooms.

### *Unsupervised activities*

First, unsupervised activities were considered. Unsupervised activities require only a brief explanation before guests can start independently, without further assistance from staff. The availability of these activities depends on the availability of materials, which is tracked using units. All outside unsupervised activities are grouped under the Uitgifte accommodation, including mountain biking, canoeing, supping, kayaking, and sit-on-tops. Combining these activities reduces the number of accommodations, as each activity initially had its own accommodation.

However, grouping all these activities under one accommodation resulted in 67 units in total. This is not an issue for the system, but it negatively impacts usability, as it does not contribute to creating a better overview anymore. Instead, it gets worse because not all units are visible at the same time on the planning board, and it is only possible to search by accommodation, not by activity. Specific accommodations can be chosen to be viewed on the planning board, but since all units are grouped in one accommodation, there is no further specification possible within this accommodation.

Thus, it was decided to split back these activities into their original setup. There is one exception: mountain bikes, which had a separate accommodation for each different bike size. This counts for the e-mountain bikes as well. They are combined in a single accommodation with units to specify sizes. The following accommodations were eventually defined: Kano verhuur, mountain biking, sit-on-tops, kayaks and sups.

### *Activiteiten*

The activities Abseilen, Gravity fall, Handboog schieten, Klimwand, Slingertouw, Speleologie and Touwparcours share common characteristics: they are all outdoor activities. While multiple activities from this group can occur simultaneously, the same activity cannot occur multiple times at the same time. This made it logical to group them under a single accommodation: Activiteiten. Each activity is assigned its own unit within this accommodation. Each activity is assigned its own unit within this accommodation, ensuring that the activities only use their designated unit.

This adjustment reduced the number of rows in the planning board from fourteen to eight, making the system more compact.

### *Bos (forest)*

The accommodation Bos (forest) already existed in the initial version, but without any units. This made the accommodation invisible on the planning board. Several outdoor activities that actually take place in the forest are linked to this accommodation, making the name appropriate. Units were created and named after the corresponding activities. For each activity there are as many units made as the activity can happen simultaneously. For instance, units Navigatie Challenge group 1 thrrough Navigatie Challenge group 3 is created, meaning that there is the possibility for three groups playing the activity at the same time.

### *Arrangementen (package activities)*

A more challenging group is the group with larger activities, each consisting of smaller activities. In the initial set up, these packages were spread throughout the accommodations in the reservation system. Accommodations were individually created for each specific package, but their activities were scattered across various accommodations, such as the activiteiten terrein, sportveld, and their individual accommodations.

To properly set up the packages, additional information about the activities linked to the packages needs to be collected. This will be explored further in a later step, where the packages are created, see page 66.

## At home

De Wilgenweard also offers activities that can be played at home. There are two games in total for this. By using automated emailing, it should be possible to send all information for these activities automatically after the reservation is successfully completed. When set up correctly, these activities require no additional effort from De Wilgenweard.

There is no additional purpose in displaying these activities in the planning board because they are entirely self-functioning. Therefore, it was decided not to assign units to this accommodation. It should become possible to make reservations for these activities directly via the website. Guests will receive all relevant details automatically via email upon completion of the reservation.

## Extern

There are also some activities that take place at external locations or involve hired materials from external companies (such as the e-choppers). In the initial setup, there was an accommodation specifically for hired materials: Extern huur materiaal. Now, all external activities have been grouped under this accommodation as well. Units were created for each activity or material, reflecting the available quantity. To better reflect its purpose, the name of the accommodation was changed to Extern.

Additionally, the rooms Schuilenburg and Externe zaal are no longer listed as separate accommodations or as units under the Zalen accommodation. While it is possible to place them under the Extern accommodation, this does not seem necessary at this stage because their availability does not need to be monitored by De Wilgenweard, as they belong to external companies.

## Other

There remaining accommodations include Touwrace, Vlotbouwplek, Watertoren and Pizzajolly.

Touwrace is an activity that is part of a package and does not require its own accommodation. This should be considered during the setup of the packages.

The Vlotbouwplek accommodation hosts an activity at the waterside where multiple groups can participate simultaneously.

While it is somewhat comparable to the activities hosted under the Bos accommodation, it was decided by the sales team to place this activity under the Activiteiten accommodation. With only four units clarity remains in this accommodations and it was considered the most logical choice. It was not needed to keep this activity in a separate accommodation.

Watertoren alongside with its activity Teambuildingspad, is no longer active and has been removed.

Pizzajolly is an activity taking place in one of the rooms, therefore the activity was moved to the Zalen accommodation. The separate accommodation has been removed.

Sportveld is an accommodation without any units or activities assigned to it, so it was deleted.

The activity Piramides takes place in one of the rooms, so the accommodation was deleted and the activity removed to Zalen.

These adjustments have significantly reduced the number of accommodations, from 46 to 20. This is a significant simplification. Further refinements may occur as more details are examined in subsequent steps. Figure 21 shows an overview of the final distribution of all the activities and accommodations. Compared to figure 20, it clearly demonstrates a better overview and improved structure.
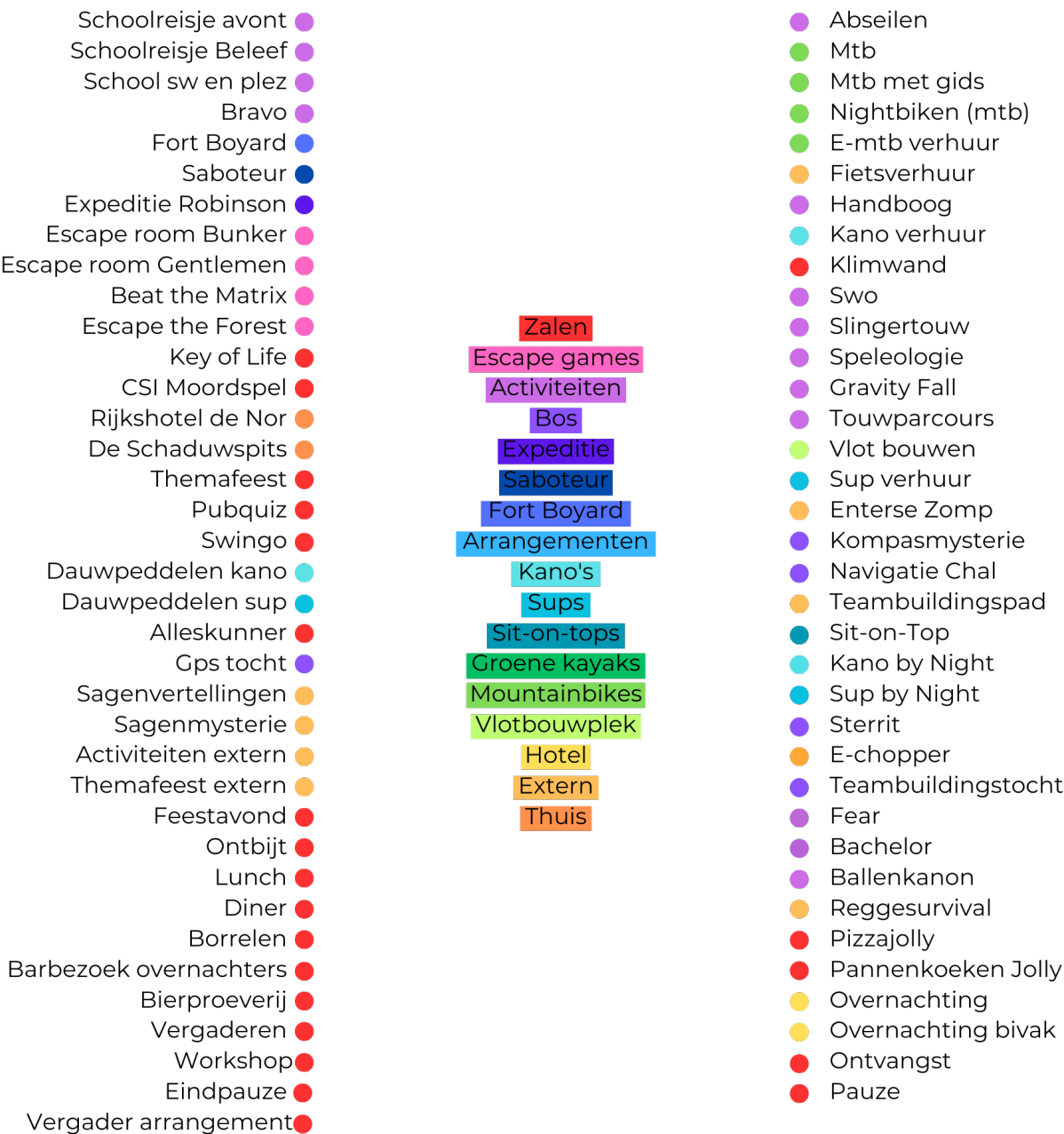


*Figure 21: Representation of places where activities take place in Nostium*

# Assigning activities

The next step in setting up Nostium involves reviewing and updating the activities. This includes creating the missing activities and modifying existing ones if needed.

In the initial setup, some activities were duplicated or no longer relevant.

The mountain bikes, for each different mountain bike size a separate activity was created. This is combined into one activity by using units within the accommodation to specify sizes.

Overnight stay for campers is no longer applicable, so the activity can be deleted. The Museum is not an activity, but part of an escape dinner. It has been deleted.

Teambuildingspad does not exist anymore, so it was deleted as well.

Most activities, however, seem to be present in the system already. Following their reassignment to the accommodations as described in previous section, the majority are now correctly aligned. However, additional details, such as duration, group size limits, and pricing, still need to be reviewed and finalized in later development steps.

Some activities require further discussion. These are outlined in the following sections.

## Activities in Zalen (rooms)
The activities hosted in the rooms of De Wilgenweard require further specification. It is possible to serve multiple groups in the same room simultaneously. These rooms serve multiple purposes and host a variety of activities. The rooms are used as:
- Reception areas where groups gather before their activities start;
- Spaces for breaks, meals, or drinks.
- Meeting rooms, such as meetings organized by external companies;
- Spaces to host activities like pub quizzes, parties, or escape dinners.

The activities in the rooms are not assigned to a specific room. While certain rooms might be preferred for specific activities, there is no strict allocation. This flexibility allows all activities to take place in any room, ensuring that the spaces can adapt to various needs without limitations.

To make a reservation for these activities, both the room availability and activity availability must be taken into account. Normally, the availability would be tracked with the units. However, units have a different purpose here because different rooms are assigned to one accommodation to work around the issue of the limitation of assigning activities to only one accommodation. Each unit represents one room, and a unit can only be assigned to one group simultaneously. However, in reality, multiple groups can be present in one room at the same time. To accommodate this, units were duplicated. For example, the room Rietslenk has now units such as Rietslenk groep 1, Rietslenk groep 2, Riestlenk groep 3, etc. Each room currently has four units, but further analysis is needed to determine if this number is sufficient to accommodate all groups effectively.

In Nostium, availability is tracked through the units linked to accommodations, which accounts for only one parameter: the physical space. However, as previously noted, the availability of the activity itself is the second parameter. Unfortunately, this second parameter is not integrated into the system. While activity limits can be set to restrict how many times an activity can occur simultaneously, it appears that this feature only functions in the guest portal (front office) and does not provide warnings for employees managing reservations via the back-office.

Additionally, within the activity setup Nostium allows breaks to be scheduled after activities, but these breaks are not assigned to a specific place. In reality, breaks, welcoming, and closing moments require physical space as well. To deal with this, these moments were created as separate activities and assigned to the Zalen accommodation. These activities can be added to reservations as extra activities to provide a more accurate and complete overview. Including these in-between moments is essential, as it might happen that the primary activity is available while the rooms are fully booked with other groups, leaving no room for them anymore.

## Online activities
The online escape games Rijkshotel de Nor and Schaduwspits are designed to be played at home. Guests can book these activities through the website, after which they receive all necessary game materials via email. Ideally, these materials should be printed for gameplay. While guests can print the documents themselves, they also have the option to request De Wilgenweard to handle the printing, which is included as an optional add-on in the reservation system. In Nostium this functionality can be added as an option to the activity. More details on the setup of options are discussed on page 68.

These activities do not need to appear on the planning board since they do not require physical space or direct involvement from employees during the activity. It is crucial that the emailing is set up correctly. The email with all the documents should be sent after payment has been completed. It is also crucial that an employee is notified if printing is required. This is managed by sending an email notification when the activity is booked to an employee's inbox.

It appears that a reservation is always bound to a timeslot. Since the online activities can be played at any time chosen by the guest, it might cause confusion when choosing a timeslot. No workaround could be found for this, so it is extra important to explain the timeslot selection to the customer during the booking process. This should be taken into account when setting up the guest portal.

## Escape games
Within the Escape Game accommodation, some activities differ in terms of group capacity and session structure. Beat the Matrix is an escape game where multiple groups can play at the same time. Gentlemen's Room and The Bunker are both single-group activities, with only one group allowed to play at a time. Escape the Forest can accommodate multiple groups, as long as they do not start at the same time, ensuring each group plays individually. These specifics are all processed in their activity and accommodation settings in Nostium.

## Other
The activities in the forest can take place multiple times simultaneously, as long as different groups do not start the same activity at the exact same time. Timeslots and start intervals can be set to ensure this. The activity Sterrit, which was initially placed under one of the rooms, does not belong there and has been moved to the Bos accommodation. It can also be booked multiple times simultaneously.

# Packages

The larger activities, consisting of multiple activities, are named arrangementen (packages). Setting up these packages in Nostium requires careful reevaluation, as the current setup is not accurate. There is a lot of confusion regarding which activities belong to which package, as well as how these activities are divided across accommodations in the system. Additionally, not all packages are in the system yet.

To begin with, an overview of the packages offered by De Wilgenweard and the activities associated with them has been created. There are two types of package activities: Activities in packages that can also be booked separately, such as Handboogschieten, Touwparcours, Touwrace, and SWO. These activities can be booked independently of the package they are part of. Next to that, there are activities that only take place as part of a package.

These are exclusive to the package and cannot be booked separately. In table 4 an overview of all packages is given. Activities that can be booked separately Activities that can be booked separately, or are not unique to the package, are indicated in bold text. There were initially 9 packages available.

An issue with the packages is that Nostium does not allow two packages to be booked in one reservation. In reality, however, guests sometimes choose to combine multiple packages in a single visit, by doing several packages one after another. To deal with this, a solution that was initially considered was to treat the entire package as a single activity, since it is a standardized set of activities that guests perceive as one cohesive experience, and multiple activities fit in one reservation. However, this gives problems for activities that can be booked separately, such as Handboogschieten, which could be part of a package but also booked independently. If packages were treated as single activities, it would be possible to accidentally double-book activities that are already included in

a package and are also available to book seperately. For example, if a guest booked Handboogschieten as a separate activity and another guest booked a package that includes Handboogschieten at the same time, this would lead to a conflict in availability.

Therefore, the larger activities need to be maintained as packages and cannot be individual activities. This way, the availability of the individual activities can be tracked.

Fortunately, Nostium released an update in August 2024, which now allows for multiple packages to be booked in a single reservation. Individual activities within packages can be tracked to avoid conflicts.

Now that more information about the packages is known, the next step is to set up the accommodations. For each package, an accommodation with the same name will be created where all the activities belonging to that specific package can be assigned. The initial idea was to create groups as units within the accommodation, with the number of groups that can participate in the package simultaneously. However, as illustrated in figure 22, it became apparent that this method does not make it clear in the planning board what the order of activities is for the specific package, because the blocks do not show the name of the activity. That is only directly visible with the units on the left side.

This order of activities is important because the order in which activities are executed in

a package is flexible. The activities must be planned in a way that ensures that the right supervisor is available and also to ensure that the activities are scheduled at times that align with the broader planning. Not every employee is qualified to supervise every activity, so the order of activities also depends on the availability and skillset of the employees.

To resolve this issue, it was decided to create units within the accommodation that are named after the specific activities. This allows each activity to be assigned to its own unit, which provides clear visibility of when each activity takes place. The order of activities is now tracked and managed through the planning board, which enables better organization of supervisor allocation and scheduling of the activities.

With this setup, it becomes much easier to visualize the order in which activities are scheduled. Each activity can only occur once at any given time, but by adjusting the activity order, multiple packages can take place simultaneously. Rescheduling is also easier with this setup because there is more flexibility for rearranging activities.

Furthermore, each package received an extra activity with the name of the package. This activity is given the total timeframe of the duration of the activity. This way, it becomes visible at when the package is played. It also provides an overview of how many groups are participating at once, as each group reserves such block. This helps managing the availability of the activities

| Package | Associated activites |
|---|---|
| Saboteur | Fotospel + vis; memorie saboteur; veiling; vertrouwen; alles op een rij; eilanden; de test |
| Fort boyard | **Touwparcours**; de fles; **speleologie**; touwrace; swo 2fb; finale fb |
| Fear | **Abseilen**, **touwparcours**, **slingertouw**, **speleology**, **ballen kanon**, eetproef? |
| Bravo | **Beat the matrix**, **mtb met gids**, **kanovaren, gravity fall, touwparcours** |
| Expeditie robinson | **Handboog schieten**; goten – blokjes; hoepelworstelen; finale expeditie robinson; memorie; vuurmaken; rups + blokjes; tangram + vis; kanotrekken; |
| Survival vrijgezellenfeest (Bachelor) | **Touwparcours, speleology (of vlotbouwen) ballenkanon, gravity fall** |
| Schoolreisje avontuur | **Kanovaren, speleologie, handboogschieten, slingertouw** |
| Shoolreisje beleef | **Kanovaren, speleologie, slingertouw, vlotbouwen** |
| Schoolreisje samenwerken en plezier | **Speleologie, handboogschieten, kanovaren, slingertouw, samenwerkingsopdrachten** |

*Table 4: list of packages*



*Figure 22: Difference in accommodation with units as groups and units as activities*

within the package, because it makes the number of groups and duration clear in the package in the planning board.

Now all activities are linked to the right accommodations, units, and packages, the Welcome activity has been removed from the package. The Welcome activity was automatically included in the package, but for every reservation that does not include a package, it has to be manually added by an employee. To avoid confusion and ensure consistency, it is no longer automatically included in packages.

After setting up the packages and their activities, the activity SWO was left over in the accommodation Activiteiten Terrein. This activity has been moved to Activiteiten, and Activiteiten Terrein was deleted.

The accommodation Touwrace hosted an activity specifically for the package Fort Boyard. This activity has been moved to its package accommodation and the Touwrace accommodation has been deleted.

# Options and option groups

Options in Nostium serve as add-ons to activities, providing additional customization and details for reservations. For example, options for a BBQ activity specify the type of meal (e.g., standard, deluxe, or vegetarian), while for overnight stays, guests can select extras like towels. In the initial version of Nostium, 92 options were present, which is a significant number. However, not all of these options are accurate or relevant anymore, and it needs to be verified whether all necessary options are already in place. This is checked by the sales team and unnecessary options were removed from the system.

To improve clarity and usability, options can be organized into option groups. These groups place related options together, making it easier to display relevant choices during a reservation. For instance, when booking an activity, an option group might show all food package options, allowing guests to select one or multiple options depending on the group's configuration. This organization helps streamline the reservation process and ensures that options are presented in a clear and logical manner. This is useful to ensure that no essential options are overlooked when asking guests for their preferences.

Some options are tied to specific activities or packages. They can automatically appear when the activity is chosen in the reservation process by connecting the option to the activity in the activity setup. These options are displayed at the top of the list for easy access. If an option is not explicitly linked to an activity, it remains available but is placed lower in the list. This allows for flexibility in the reservation process to choose additional options while keeping the most relevant ones easily accessible for specific activities.

Initially, options were explored as a potential workaround for managing activities across multiple accommodations due to their flexibility to be assigned to any activity in any accommodation. Options would act as activities. This approach could theoretically address the limitation of activities being restricted to a single accommodation in the system. However, options are not directly visible on the planning board and do not

have a prominent place within reservations. Users need to put in more effort to find them, resulting in a longer processing time compared to using activities, and this does not contribute to having a good overview of the made reservations.

Additionally, options lack the ability to specify a time or physical location, making them unsuitable to function as activities. Similarly, while it might seem logical to use options for elements like welcoming, breaks, and closing moments, since these could easily be attached to an activity during the reservation process, the same issue applies: the lack of time and location integration. Therefore, these elements remain distinct activities to ensure proper visibility and scheduling within the system.

Eventually, options are used solely as extras to specify guest preferences for activities. The experimental options mentioned earlier were removed, along with irrelevant or outdated options. Options and option groups were reorganized, grouped, and linked to the appropriate activities.

Within the groups, selection methods were chosen, such as choosing one option from the group, selecting multiple options, or specifying quantities for each option. Options can also be made mandatory, which is particularly useful for online reservations to guide guests through the process. Pricing can be assigned to options as well.

A complete overview of all options can be found in appendix E.

# Artikelen (products)

Products can also be part of a reservation, or more likely the billing afterwards. They allow the addition of individual products, such as a cup of coffee or a glass of soda, that are ordered spontaneously during or after an activity. These products are primarily managed within the cash register system, similar to standard restaurant operations. Products can be manually added to a reservation within Nostium. It is, however, important to note that products added through the cash register system are not reflected in reservations made in Nostium. The integration only works in the opposite direction, items added in Nostium will appear in the cash register system.

To create products in Nostium, a name and unique product number must be provided, and a price can be assigned. However, the added value of adding products to the reservation system was not found, as the final billing does not go via Nostium but via the cash register system. Initially, there were no products put in the reservation system and no products are added at all.

# Checking details

All accommodations, activities, packages, and options have now been generally set up correctly. The remaining task is to verify all details, such as prices, group sizes, and durations. This can be reviewed within the setup section for each activity or package. Once all details have been checked and confirmed, Nostium will essentially be ready for use. To systematically review and update settings, a checklist was created, see appendix F. The parts that need reviewing are discussed in this section.

## Pricing
For some activities, pricing had already been entered in the system, but not for all. While many existing prices were accurate, significant updates were necessary. De Wilgenweard makes use of price differentiations based on seasonal periods, and prices required adjustments from January 2025 onward due to inflation.

In Nostium, a standard price can be set, and different prices for specific days or periods can be added separately. It is important for employees to update prices well in advance, as reservations are often made ahead of time. Simultaneously, the current prices must remain active to avoid contradictions in ongoing reservations.

There are several ways to differentiate prices, including variations based on the number of attendees, activity duration, and the day of the week. Detailed instructions on how to configure these in the reservation system are outlined in appendix H. The manual has been specifically written for employees to use the reservation system. More information about the manuals can be found on page 79. Pricing for activities at De Wilgenweard has been entered for the period from October 2024 up to December 2025, based on the pricing list of 2025 that was provided.

Pricing for packages works slightly differently than for individual activities. While it is possible to use the original prices of the activities within a package, simply adding them together does not reflect the package's actual price. The specific package activities do not have individual prices, or De Wilgenweard offers a discount on the total price for packages. Prices can be set within packages themselves.

Each activity within a package can either have a customized price assigned or be excluded from the pricing entirely, if desired.

Pricing differentiations for packages are handled in the same way as for individual activities, with variations based on factors like group size, duration, or the day of the week.

Each package includes an overarching activity, named after the package, that reflects the total duration of the package. It has been chosen to link the prices of the packages to these overarching activities and assigning a value of 0 to the other activities within the package.

## Color scheme of activities
A color can be assigned to each activity to make them easily distinguishable in the planning board, which helps in maintaining a clear overview. It can be a unique color or a color that is reused across multiple activities. Using a color-coding system is especially useful when managing multiple activities happening simultaneously.

To enhance clarity, activities are grouped by color. The grouping must provide insights into exceptions or activities that need special attention. The first group are food related activities. It is convenient to see in a quick eyesight if there are activities including food present, to adapt the purchase to this. Next to that, theme parties got its own color, as well as parties itself. For the remaining activities, the sales team decided to stay to one color, this makes the just mentioned activities stand out even more.

## Time settings
Time settings for activities are configured to ensure proper scheduling and coordination. Each activity has a default start interval of 30 minutes and a duration of one hour when created in Nostium. These time settings need to be adjusted for each specific activity or package, this is done by the sales team in the next phase.

For activities taking place in the Zalen accommodation, where availability depends not only on the room itself but also on materials specific to the activity, the number of activities that can occur simultaneously was configured accordingly.

Detailed instructions on how to configure time settings can be found in appendix H.

## Specifications online booking
To enable online booking for activities, specific configurations are required. By default, activities are not automatically bookable by guests and must be explicitly set to allow online reservations.

Key considerations for online booking include setting a buffer time between the booking date and the activity date. This ensures sufficient time to arrange employees for supervising the activity or preparing necessary resources. This buffer is set as default on 36 hours. Guests can book shortly in advance, while De Wilgenweard still has time to prepare.

For online bookable activities, it is important that all information, such as availability, pricing, and activity details, is accurately entered into the system. This minimizes the risk of needing to contact guests for corrections or, in the worst case, cancel their reservation due to system-related errors.

Guests make reservations through the guest portal. It is important that information about the activities is clear and concise and that the reservation process clearly indicates what information is required from the guest. Detailed instructions for setting up the guest portal can be found on page 72.

# First step to integration

With the settings for activities, packages, and other aspects correctly configured, the focus shifts to additional preparations necessary for integrating Nostium within De Wilgenweard. Transitioning from Stratech to Nostium requires additional effort. As previously mentioned in this chapter, the cash register is also part of De Wilgenweard's processes and needs to be linked to the reservation platform. Additionally, an online payment method and the website must be integrated with the booking platform.

## Cash register
When guests arrive at De Wilgenweard, they will be checked in via the cash register system. This is done by an employee, who checks if their reservation. Information is retrieved via the cash register system. If the payment was not completed beforehand, guests can pay at the desk. To get information from Nostium into the cash register system, the systems need to be coupled to each other. De Wilgenweard makes use of MPluskassa. "MplusKASSA is the most user-friendly and flexible cash register software on the Dutch market" (MplusKASSA, z.d.).

To link Nostium to MPlusKASSA, specific information was required that MPlusKassa needed to provide. For every element that must be transferred from Nostium to the cash register, it needs to exist as a product in the cash register as well. This was already the case, as the system was already in use. These products have a unique ID that must be coupled to the components in Nostium. MPlusKASSA provided an Excel list containing all products and their unique IDs.

With this integration established, checking in a reservation in Nostium automatically transfers the information to the cash register, enabling payment. Although the cash register operates using fixed prices for products, De Wilgenweard uses a lot of price differentiations. Fortunately, the prices set in Nostium for activities, packages, and other items are the ones that are leading. When a reservation is transferred from Nostium to the cash register, the specified prices in Nostium are automatically applied, ensuring

consistency between the two systems.

Although Nostium collaborates with multiple cash register providers, they recommend Until as the preferred provider. They have a good collaboration, providing an automated integration process. MPluskassa, however, functions correctly, only the setup requires more preparation.

## Payment methods

In addition to paying at the desk, it is possible to pay via invoice and online payment. Online payments are applicable for online bookable activities. Reservations made online are only finalized once payment is completed. Currently, payments for online activities are processed via Leisure King. However, with the full integration of Nostium, Leisure King will no longer be used, requiring the selection of a new payment provider.

De Wilgenweard previously used Mollie for online payments, and since Nostium collaborates with and recommends Mollie, the company made the decision to reconnect with Mollie. Mollie is a platform to manage all financial affairs. "Use Mollie for online and in-person payments, subscription payments, financing, reconciliation and fraud prevention" (Mollie, n.d.).

Their Mollie account was reactivated and by entering the API token in Nostium the payment system was connected. This enabled the payment step in the online booking process via the guest portal.

Invoices are a third payment method. These are not managed through the reservation system but are instead handled via a separate system. This process remains unchanged. Information about the reservations for this is retrieved from the cash register. Therefore, it is important that all reservations will be checked in, in the cash register system.

## Website

The website of De Wilgenweard displays all activities the company offers, with each activity having its own page providing information such as target audience, group size, duration, and a description. Most activity pages feature a contact form linked to the info@wilgenweard.nl mailbox, allowing guests to request more information

or place a reservation request. This process will remain unchanged after the integration of Nostium.

However, adjustments are necessary for the pages of online bookable activities. The existing links to Leisure King on these pages must be replaced with links to the corresponding activities in Nostium. These links can be easily retrieved within Nostium by navigating to: Rapportages > Link Overzicht. These links guide guests directly to the reservation page of the specific activity in the guest portal, where guests can make the reservation.

It is important to make the switch from Leisure King to Nostium for online bookings as seamless and brief as possible, ideally within a single day, to minimize overlap between the systems. It is not practical to have three systems simultaneously active, as availability of the activities is hard to track during this period. It is possible to shut down Leisure King during this transition, but this is not ideal for De Wilgenweard as guests can make no reservations.

The transition is best scheduled for December, as this is a calmer period for De Wilgenweard. Guests will encounter minimal disruption, and the transition must be completed before the switch to Nostium is completed. Employees, however, should already be familiar with Nostium before the transition, ensuring they can manage incoming online reservations correctly.

## Guest portal

Before linking the specific activities to the website, the guest portal must be set up. Via the guest portal guests can make reservations online. The setup is done for the online bookable activities.

While Nostium provides a standardized setup for the guest portal that automatically applies to all activities, this setup is too generic for certain activities. The default setup includes phrases like "Welcome to our reservation page. To make it as easy as possible we ask you to go through the steps below", "Make a choice" and "Please enter a name per participant". These generic phrases are not tailored to the specific needs or unique characteristics of certain activities and do not provide guests with the necessary information to complete reservations successfully. For
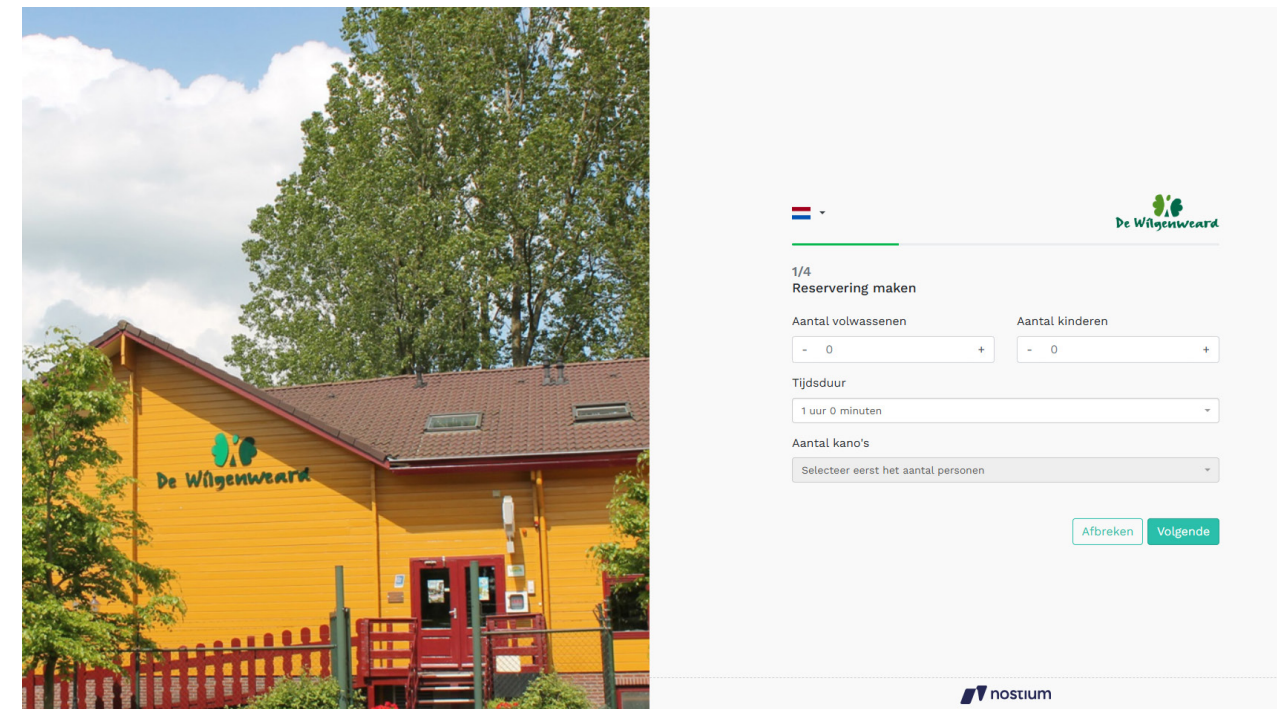


*Figure 23: First step online reservation process*

example, the activity canoeing requires guests to specify how many people will be in each canoe. Such choice is made by selecting units. However, the concept of units may not be clear for most guests and potentially causing confusion during the booking process. Additional explanation to the guests is necessary here. This can be added by adapting the texts displayed in the guest portal. These changes can be made via Taalsjablonen in the back-office. Customizing the guest portal will make the booking process more user-friendly and improve guest experience.

The first step is to identify the activities that require additional customization in the guest portal. Only the activities that were already online bookable via Leisure King will be considered, as enabling other activities for online booking is not a priority at this stage.

Figure 23 shows the first page that pops up when starting the reservation process for a specific activity.

A guest selects a specific activity before entering the guest portal to make the reservation, so they should be aware of what they are booking. However, it is not visible which activity the reservation is for on this page. It is possible to change the text "making a reservation" to (for example) "making a reservation for mountain biking".

This would require creating a separate template for each activity, which would be quite time intensive. It is requested to Nostium whether it is possible to implement a feature that automatically displays the name of the selected activity, such as a text placeholder (%name_activity%) that automatically fills in the specific activity name in the text. It is unclear whether Nostium plans to implement this feature.

On this first page, guests can specify the number of adults and children participating in the activity. Another feature on the first page, when set up, is the option to choose the duration of the activity. This is useful for activities that, for example, can be booked for 1, 1.5, or 2 hours. Additionally, it is possible to ask guests to choose the number of units required for the reservation. To enable these settings, 'Instelbare Tijdsduur' in the back-office of the specified activity must be checked.

*Figure 24: Second step online reservation process*



*Figure 25: Third step online reservation process*



*Figure 26: Fourth step online reservation process*

The second page in the reservation process displays the option to select date and time. If guests need to choose specific units, such as the bike sizes for mountain biking, this option will also appear on this page.

The third reservation page asks for guest details, such as name, email address, and more. The company should decide which guest details are necessary. This can be configured in the back-office via Location Details.

The following page displays a summary of the reservation details, allowing guest to review and confirm their booking. After confirmation they can complete the reservation by paying.

There is the possibility to add an extra step in the reservation process by offering additional options. This can stimulate upselling, for example, by adding an option for snacks during the end break. This feature, however, has not been implemented yet for online reservations, as the primary focus is on establishing a functional system first.

The activities with specific units, such as mountain biking where bike size should be chosen and canoeing where guests can choose the number of canoes, are customized. It is explained to the marketing employee how the guest portal can be setup and what points should be taken into account, with which she could refine the details further. Furthermore, inspiration is gained by analyzing competitors, such as Multifun, who also uses Nostium.

# Phase 4 Deliver

In the last phase, the developed system will be finalized. All the different elements were setup in previous phase with careful consideration, by trying to meet the conditions set by De Wilgenweard and using the features of Nostium the best way possible. The goal of this phase is to finish the development of Nostium for De Wilgenweard and fully integrate it into the company's operations.

The developed setup will be assessed in its entirety and subsequently integrated within the company, allowing them to start using the new reservation system. Users are actively involved in testing and integrating of the system. Adjustments might be made to enhance the user experience.

To evaluate the delivered and integrated system, the renewed attitude towards Nostium will be evaluated as well.

# Testing and transition process

While individual parts were discussed and tested during the development phase, the deliver phase focuses on testing the reservation system as a whole. The focus shifts from testing individual functionalities of the system to assessing the complete system and evaluating the experience of the users. Users play a crucial role in this process.

Testing in this phase primarily involves testing the reservation process, by evaluating the execution of main tasks by users. This involves the creation of reservations in the system, modifying these afterwards, tracking their status, and managing communication with guests. Until this point, test reservations merely existed of fictional reservations created by the author and company supervisor, but to move further, existing reservations or more complete reservations will be used.

Next to testing, De Wilgenweard must transition from its old systems to the new one. These two processes go hand in hand. The test reservations involve transferring real reservations from Stratech into Nostium. This needs to be done before the company can fully adopt Nostium.

The testing and transition process consists of two parts: testing conducted by the supervisor and testing performed by main users. First, the role of the supervisor and employees will be discussed before going to further.

## Role of company supervisor
Before final testing with the sales team, the company supervisor began with making test reservations. The company supervisor will be the point of contact regarding Nostium in future steps. He is the main responsible in the transition and integration process. Therefore, he must become highly familiar with the new reservation system.

This was achieved by recreating existing reservations from the old reservation system into Nostium. The existing reservations

reflect real scenarios more accurately than fictional reservations, as they typically involve multiple components while fictional ones only tested specific parts of the system. Almost every reservation includes at least welcoming session, the activity, and end break, or it might consists of multiple activities with multiple breaks in between as well. By recreating the existing reservations into Stratech, the supervisor gained an in-depth understanding of the system. Additionally, any potential issues or challenges were identified, ensuring smoother assistance for other users during the transition process.

Although system settings were broadly discussed with the supervisor during the development phase, detailed verification was not completed. Instead, the decision was made to start using the system with test reservations immediately. A step-by-step review of every detail is very time-consuming and was deemed unnecessary, as the reservation system would function even with suboptimal settings. Any required adjustments could be made during the testing process at the moment itself.

Entering existing reservation into Nostium is not only useful for testing purposes, but it is also part of the transition process. All existing reservations must be transferred into Nostium before being able to fully transition to the new system. More information about this can be found on page 79.

## Role of main users
The employees who will mainly use the system play a key role in the testing and transition process as well. They are involved in several steps. First, by recreating existing reservations in Nostium and evaluating this process. Next, diving into the steps that would happen after a reservation is made: where and what information can be found in the system and what information do guests receive.

To facilitate this process, first user accounts were created. While doing this, it was discovered that only the company supervisor has the rights to assign roles to each user. It is important to know who has these rights to be able to add new users in the future. This information has been added to the manual.

## Manuals
Before starting the testing process, two manuals were created to support the users in executing their tasks. A good user manual reduces the workload of the support team, as is the supervisor, it saves time for the user and will contribute to a positive user experience (Lu, 2022). The first manual outlines the execution of daily tasks in Nostium, such as creating reservations, customizing prices for the guest, usage of the planning board, and generating of quotations. See appendix G. The second manual provides guidance on the setup of Nostium, explaining the rationale behind the configuration and describing how structural changes can be made or new activities added. See appendix H.

## Recreating and transitioning reservations into Nostium
The first step in the testing process involved recreating existing reservations in Nostium, with the participation of sales employees. It is important that eventually they can create reservations that consist of multiple components on their own and that this is logical for them.

This part focuses on familiarizing main users with their tasks in the new system and gathering insights from their experiences, together with finding final improvement opportunities for the system. By creating reservations in Nostium, the users are trained to use the system. Since the reservations that are recreated were already finalized in the previous system, there was no time pressure or direct communication with guests during the process. The users, therefore, could concentrate on accurately transferring data and trying out the system, without worrying about availability or specific room allocations, as these decisions had already been made in the original system.

The combination of different activities within one reservation reflects reality well. The reservations represent real case scenarios and therefore reflect well which type of reservations should be possible to make in Nostium. It gave insights into the effectiveness of the system.

The sales employees made the first reservations together with the company supervisor. They were walked through the process step by step. The employees

were watched closely, and experiences were shared. After a couple of reservations put into the system together, they were able to work independently. Employees experienced some confusion with larger, more complex reservations. These consist of multiple activities and larger groups. Overlap in activities occurs with larger groups, subgroups within the same reservations create scheduling challenges. In Stratech it was possible to define subgroups, but Nostium has not the ability to do this. To overcome this challenge, the activity should be put together multiple times in the reservation, this requires extra attention into the time indication. The timeslots move automatically so that the activities always directly connect one after the other. This is, however, not always the intention. There is, fortunately, a setting in the reservation process that can be selected that prevents this. This is something the users need to get used to.

Also, the bigger the reservation, the harder it gets to keep an overview. It is important for the users to fill in the reservation step by step to keep a good overview.

Although the prices of every activity were updated during the previous phase, it was discovered that employees often customize prices within reservations to make them more appealing (e.g., by rounding of numbers). Nostium allows price adjustments within reservations, but for this functionality, the reservation must be set as a quotation. The creation of a quotation works the same as creating a reservation but includes more options such as price adjustments. This method has now become the standard for employees for making reservations.

## Information and communication
When a reservation is created in Nostium, there are a set of different statuses the user can give to the reservation: Created, Pending, Confirmed, To Checkout, and Canceled. The different statuses are outlined in this section.

After creation, the reservation status automatically is on Created. This means that the reservation is entered in the system but there is no confirmation or whatsoever from the guest yet.

Pending means that the reservation is entered in the system and the guest is asked

to check and confirm the reservation. The status remains pending while awaiting the guest's response.

Confirmed means that the reservation is confirmed. The quest has approved the proposed program. At this stage, the guest is obligated to pay for the reservation, either via an invoice or at the location.

To checkout means that the guests have arrived at De Wilgenweard. The reservation in Nostium is transferred to the cash register, which takes the reservation over. Payment can be done at the checkout or afterwards via invoice. When the reservation is at the cash register, Nostium no longer plays a role in managing the reservation. Information for invoices need to be gathered via the cash register. Any additional charges incurred on location are recorded in the cash register.

A reservation is canceled when the guest (or De Wilgenweard) cancels the reservation. This can have multiple reasons. The reservation was not confirmed and still an option, the guest declined the reservation offer, or the guest has unforeseen circumstances, such as illness.

The status of a reservation can be changed by an employee within the reservation setup. The employee can send the status of the reservation to the guest as well. Information is communicated to the guests via email. Nostium generates different email templates for each stage of the reservation process.

When a reservation is created in Nostium, employees can email the reservation details to the guest. This email includes an option to accept, modify, or decline the reservation offer. The reservation status automatically updates according to the outcome. The emails generated by Nostium consist of a customizable section that allows employees to personalize messages, and a standardized section that includes reservation details. However, for larger or more complex reservations, not all reservation details are useful. Nostium does not allow users to customize the part with reservation details, which results in unnecessary and repetitive information being sent.

More information about the automated emails can be found on page 82.

The main communication method with the use of Nostium remains via email. However, for urgent matters or when quick responses are required, employees also reach out via phone. This dual approach ensures clarity and efficient communication throughout the reservation process.

## Points of improvement
With the information gained during the testing and transition process, several adjustments have been made. The adjustments are described in the following sections.

### Planning board
The order of accommodation and units within accommodations in the planning board has been changed. The most important accommodations and the most used ones are placed on the top of the list. This way, their availability becomes directly visible on the planning board and more structure is created. The less important ones are moved down. For example, the Zalen accommodation moved to the top, Escape games as second, and Hotel was moved all the way down.

Furthermore, some accommodations needed extra units to accommodate more groups simultaneously, so they were added. This was primarily the case for the Zalen accommodation. Additionally, some names were adjusted to more correct names, such as hotel rooms initially numbered 1 to 12, but in reality, these are numbered 101 till 112.

Lastly, it is possible to move reserved activities in the planning board to other time slots and to other units. This makes rearranging the activity order in packages easier. After a reservation has been made the employee can go the planning board to physically move the activities to another time slots This tip is included in the manual for the users.

### Reservation process
Some options and option groups were assigned to specific activities and packages. This way, they automatically show up in the reservation process. While this seemed practical for options that are commonly booked with certain activities, it appeared that there is a lot of differentiation in what is standard. De Wilgenweard offers too much customization for its guests to use this in a practical way. Confusion arises when options are visible but not needed. The only option group with associated options that remains linked to the activity is the overnight stay option group, associate with the overnight stay activity. For ease of use, all other options were disconnected from the activities. The users can still use all options and, when they think certain options should be automatically connected, they can reconnect this in the system in the future.

Another feature that was discovered is the ability to customize the names of options within a reservation. The name of an option can be altered specifically for that reservation. This is especially useful, as De Wilgenweard tends to customize a lot for its guests. This way, not every single request requires creating a new option. There is now a general VAT High and VAT Low option whose name and price can be adjusted.

Even though it was chosen to remove the welcome and end breaks from the packages to create consistency when creating reservations as for every activity it is required now to plan a welcome and end break (when applicable), it was decided to include the welcoming, breaks and end breaks again within the packages. This simplifies the process, and this also reduced the tasks required of employees when online reservations are made.

Wisselunits were added to the package accommodations. When multiple packages are booked for one reservation it becomes challenging to manage overlapping time schedules in the reservation. Individual activities must be reorganized to fit them planning. Since a unit can only host one activity at a time, the Wisselunit was added as a storage space for activities to enable smoother scheduling and allow adjustments later.

### Managing larger reservations
As indicated earlier already, confusion arises when larger reservations need to be entered in the system. Particularly when timeslots overlap or need adjustments, activities may shift to unintended timeslots due to the package settings. However, there is a button in the reservation process called Deviating Starting Time, as explained earlier. Users must pay attention to this. This is addressed in the manual.

There is, however, a functionality in the setup of the activities to automatically split larger groups into multiple smaller groups. Unfortunately, this feature only works in the front-office. This issue is known for the developers of Nostium, and they are working on a solution, but they have stated that creating this functionality in the back-office is challenging without sacrificing flexibility. They advised making reservation for larger groups via the front-office, as employees have this ability. This solution, however, only works for single activities and not for packages.

Another issue is that it is not possible to indicate subgroups within a reservation. There is no proper solution for this, but Nostium has received a request for improvement. For now, the infill field for Number of Children is being used to indicate the group number. Since De Wilgenweard does not generally differentiate between children and adults, this is considered a temporary solution.

### Deleted items
The activity Schaduwspits has been removed as it is no longer relevant.

### Information to guests
Quotations are created via Nostium. These automatically generate data from the reservation details entered in the system. In Stratech, it was possible to customize the generated document, but this feature is not available in Nostium. This is inconvenient, as sometimes it is desired to clarify certain details.

# Integration

The users are now familiar with Nostium, and their feedback is processed. To finalize the setup and complete the integration of the system into the company, a few remaining points require attention. While the existing reservations have been transitioned to the new system, some other elements still require discussion, such as the complete integration of the system. Nostium offers the possibility to automate certain processes: online bookings by guests and automatic emailing. Additionally, the working of the system for other employees beyond the main users, including the integration with the cash register system, needs attention. These integration points are discussed in this section.

## Automatic emailing

Nostium generates a set of standardized emails. Table 5 provides a list of all emailtemplates that Nostium can generate. These emails are sent automatically after a specific step or status is reached. A part of the information within each email can be personalized, but the reservation details remain the same everywhere. However, not all reservation details are always relevant. For larger reservations, some details can be unnecessary or redundant. This results in guests receiving multiple emails with overlapping information, which can lead to confusion or irritation rather than enhancing the guest experience.

Not all emails are relevant and unactive, as indicated in the table, therefore a distinction is made focusing on the information guests should receive and when they should receive the information. Important moments include the first contact, confirmation, and, when applicable, additional information.

The first contact email includes reservation details that have been discussed with the guest or requested by them. It often also includes a call-to-action.

Confirmation emails are essential to ensure both parties agree on the details. In Stratech, a quotation was updated to the status Confirmed after confirmation. The same quotation was then sent, but with the title 'confirmed'. This provided extra clarity for both parties. In Nostium, however, this is

| Emails |
|--------|
| Final confirmation |
| Privisional confirmation |
| Cancellation |
| Payment request |
| Modified payment request |
| Payment failed |
| Invoice paid |
| Invoice to be paid |
| Message to guest |
| Activation voucher |
| Quotation |
| Quotation approval |
| Quotation rejection |
| Reminder |
| Follow-up email |
| quotation reminder |
| Activity instruction |
| Participants |
| Tickets |
| After sales (non active) |
| Subscription activation (non active) |
| Subscription activation payment request (non active) |
| Subscription renewal (non active) |
| Subscription renewal payment (non active) |
| Subscription credits will expire (non active) |
| Subscription expired (non active) |
| Subscription expired payment request (non active) |

*Table 5: List of email templates*

not visibly that clear. When a reservation is confirmed, the same quotation is sent with an extra note in the document and extra text in the email saying it is confirmed together with the terms and conditions. Even though the difference is not that visible, it is a legal and common way of approving quotations.

Emails with additional information are specific per activity. Email templates can be used for this, but it is quite time-consuming setting this up for each individual activity. In addition to that, employees mostly send personalized emails via their Microsoft office mailbox, indicating to the guest that they will receive another email with the reservation details afterwards from Nostium.

After-sales emails could be a valuable addition to Nostium automatic emails. These emails thank the guest for their stay and requests them to leave a review. However, De Wilgenweard is selective in sending review requests. If a group's experience during their stay was positive, they receive an email asking to leave a review behind. Negative groups do not receive a review request. Nostium does not allow to make a distinction to whom is sent the email. Therefore, this email template was turned off and the reviews are sent via the original method.

The subscription emails are not applicable to De Wilgenweard and, therefore, have been deactivated.

The content of emails can be changed via the back-office in the company page. Different email templates can be created from the same base template and linked to specific activities. This allows each activity to have customized emails. It is explained to the sales employees how to create these emails and how to change the content of them. Since they are most familiar with the activities and understand what information should be communicated to guests, it is efficient for them to manage these emails themselves.

It has to be noted that for some emails the employee can choose whether to send the email or not. When reservation details are altered, the employee can choose between 'save' and 'save and send email'. Some email templates are less used, but it is important that they are still correctly written, might it happen an email is sent unknowingly.

## Online reservations

During the development phase, the setup of the guest portal was already discussed. To complete the integration, additional aspects need to be completed: online payment and maintaining an up-to-date system.

As discussed in the previous phase, a Mollie account was activated to enable online payments. This account has already been linked to Nostium, which added an extra step to the online booking process where a payment request appears. Guests can only complete their reservation after the payment has been completed.

Furthermore, from the moment online booking is enabled, the system must be and remain up to date regarding availability. This means that all reservations for activities bookable online, already entered into Stratech and Leisure King, must also be transitioned to Nostium. If this process is not done correctly, overbooking could occur. These reservations were transitioned as part of the testing and transition process, discussed in previous section. In the month December, special focus was placed on transitioning these specific reservations to ensure that the online booking feature could be activated smoothly.

The guest portal was linked to the website at end of December, at which point Leisure King was officially disconnected.

For this process, the sales employees were actively involved. They were provided with detailed explanations about aspects to consider and the functionalities of the guest portal. This enabled them to set up the portal for the activities themselves. Since they have the most knowledge about the activities and the required guest information, their involvement increased the process's efficiency. Decisions regarding text, icons, and guest information in the guest portal were made by them.

Additionally, a 'make a reservation here' button was placed on the home page of the website. Via this button, guests can enter the guest portal as well.

## Nostium for other users

Beyond sales employees, other staff members also interact with Nostium, particularly for planning and guest check-ins.

Each day, personnel must be planned in for the activities that are booked on that day. There are two types of plannings used: week planning and day planning. The week planning is a more general planning, indicating who is scheduled to work and at what times. The daily planning gives extra information, outlining specific tasks for the day. This planning structure remains unchanged. Information for the planning is retrieved from Nostium via the Reports page. Reports containing details about booked activities, participant numbers, and additional information can be downloaded via this page. Thereafter, the retrieved information is translated into the planning template.

Another task is the reception of guests. When guests arrive at De Wilgenweard, this is reported at the checkout. Previously, reservations for the day were entered, mostly automated, into the cash register the night before, allowing employees to check guests in upon arrival. With Nostium, however, the process works differently. The reservations must be transferred manually in the cash register. However, this can be managed on the spot. When a guest arrives, the employee checks in the guest via the dashboard of Nostium. Once checked in, the reservation automatically transfers to the cash register. The employee then proceeds with the reservation using the cash register as usual. Although an employee usually transfers all reservations of the day to the cash register in the morning for ease of use, but it could be done on the spot.

## Points of improvement

The information gained during the integration phase led to a couple of another improvement points. The adjustments that were made regarding integration are described in the following sections.

The connection with the cash register system proved more challenging than initially anticipated due to slow communication. Once the connection was established, reservations could be successfully transferred to the cash register. While the reservations are being transferred correctly, there is some confusion regarding the reservation names. When a reservation is made for a company, both the name of the individual who made the booking and the company name are recorded. However, De Wilgenweard typically relies on the company name, whereas the cash register displays the individual's name. This difference makes it difficult to locate certain reservations within the cash register system. A request has been submitted to MPlusKassa to address this issue by ensuring the company name is used consistently. However, this change has not yet been implemented.

With the integration of the guest portal into the website, online reservations have become available. To optimize this process, the setup of the activities was adjusted slightly. Instead of making the specific activities bookable, the activities were created as packages that can now be booked. Within these packages, a welcome activity and end break were included as well. This adjustment eliminates the task for employees to manually add these elements after an online booking is made. Additionally, it provides more clarity for guests regarding their arrival times and completeness of their reservation.

The email templates have not been well-received by the sales team. While the customizable section of the email is considered adequate, the reservation details section is often viewed as unnecessary. Additionally, the process of setting up email templates lack transparency. It is not clear what the reservation details will look like within the emails during the setup phase. The only way to check this is by creating test reservations and then receiving the emails yourself. Even this process is inconsistent, as not all emails are received automatically, and there is little clarity about which emails are sent by default. Email templates are activated within the email templates, but some also must be deactivated via the activity setup.

As a workaround, the sales team often send personalized emails via Microsoft Office, with the notification that a separate email containing reservation details will follow. This approach provides them with more flexibility to customize the communication.

# Updates Nostium

During the execution of this assignment, there was a lot of communication with Nostium itself. Besides their support page clarifying a lot of the system's functionalities, they offer personal support as well. There was a lot of contact with their support team. Questions, bugs and desirable improvements were communicated. The following topics were point of discussion:

- Timeslot division for bigger groups;
- Possibility to personalize dashboard;
- Possibility to link activities to multiple accommodations;
- Ways to set availability of activities other than using units;
- Display of activities in planning board;
- Activity order in packages;
- Report pages;
- What payment is leading in cash register (cash register or Nostium);
- Bugs price composition;
- Setting up deviating pricing;
- Activity name in guest portal;
- Email templates;
- Turning on options in a reservation;
- Start interval and subgroups.

A complete overview of all the issues and its updates can be found in appendix I. In general, the support team often indicated that they would submit the request to the developers to see whether there is something they can do to improve the issue. When new updates are coming out, they are mentioned on Nostium's support page.

# Renewed attitude towars using

The fully integrated system, or final deliverable towards company, reflects the term 'actual usage' within the System Integration Framework. To determine whether the integrated system is a success, the renewed attitude toward its use is assessed and evaluated, comparing it with the original attitude. This evaluation involves examining requirements, UX elements, and user experience.

## Requirements

The setup is evaluated by assessing the requirements that have been established during the define phase. Each requirement has been reviewed to determined whether it has been met. In table 6, the status of each requirement is indicated as either achieved, partially achieved, or not achieved. Where necessary, further explanation is provided to clarify the assessment.

To conclude, all requirements have been either achieved or partly achieved, which is a positive outcome. For the partly achieved requirements, solutions or workarounds have been provided to the employees, with which they can work with.

## UX elements

The next step in evaluating the success of the integrated system is assessing the UX elements. In the define phase the discovered UX elements were discussed. Evaluating whether the UX elements are improved give insights into the renewed attitude towards using.

The focus points are sorted by element, and are shortly mentioned again, after which their status is given.

### Effective

A one-size-fits-all setup for the reservation system might not be suitable for each activity, as the offer of De Wilgenweard is very diverse. This has a negative impact. However, customization is possible, and this has been done for De Wilgenweard. It requires significant effort to setup everything, but once correctly executed, a suitable setup for each kind of activity has been found. In some cases not as intended by the system, however. For these cases, work arounds have been implemented. This makes the end result positive for this focus point.

A lack of clear information for external stakeholders could result in operational issues, such as insufficient stock or overbooking of materials. This has a negative impact. Having all information available in a single system, much better overview is established. This results in a positive outcome for this point.

Working with two different systems increases the chance of making mistakes. If a reservation is forgotten to be transferred to one of the systems, it is possible that overbooking happens. This means that there is not enough space or material for one of the reservations, which would then have to be cancelled. This has a negative impact. However, with the discontinuation of Leisure King and Stratech, all processes have been integrated into a single system, Nostium, reducing the chances of such errors. This makes the end result of this point positive.

The next point is about including multiple packages into a single reservation. This appeared to be impossible, but in reality, it occurs that multiple packages are booked for one reservation. Nostium restricts reservations to one package at a time. This has a negative impact on the effectiveness of the system. However, an update solved this matter and made it possible to book multiple packages in a reservation. This resulted in a positive end result.

### Efficient

Previously, the sales team had to check Leisure King regularly for new reservations and manually transfer these to Stratech to ensure availability remained up to date in their main reservation system. This was a time consuming process and had risk of discrepancies and negatively impacted the efficiency. Since Leisure King and Stratech have been replaced by Nostium, all reservations are now managed within a single system. This increases the efficiency, which results in a positive end result.

In Stratech, manual adjustments were often required during the reservation process. This slowed down processes and had a negative impact. Nostium also requires some manual adjustments during the reservation process. So, in this aspect there is no improvement.

The reservations page in Nostium offers useful sorting and filtering features, making it efficient to find data. However, it is not always clear which report contains the desired information, because there are a lot of reports. This limits the system's perceived efficiency, despite its potential. This is something that needs time to get acquainted to and becomes better over time.

### Useful

The planning board was in Stratech a widely used feature and in Nostium as well. The planning board in Stratech, however, is considered more useful than the one in Nostium, as it is something they are used to work with, and some features are missing. Such as the amount of information visible on one screen. This doesn't make it useful, but the experience is in regards to Stratech negative.

| Number | Requirement | Status |
|---|---|---|
| 1. | Nostium should completely replace the old systems Stratech and Leisure King. | Achieved |
| 2. | All active activities of De Wilgenweard should be integrated into Nostium. | Achieved |
| 3. | The system should be able to keep track of the availability of activities. | Partly achieved. Availability can be tracked, however for the activities in the Zalen accommodation this is not fully possible. This needs to be tracked manually. |
| 4. | The system should support price variations of activities across different time periods. | Achieved |
| 5. | Automated emailing should be integrated into the system. | Achieved. However, not as intended. Full automation of this feature is not desired and a middle way is not possible |
| 6. | The reservation system should integrate with other systems:<br> a. the website of De Wilgenwerad<br> b. the cash register system<br> c. the payment system<br>Preferable integrate with those programs already in use | Achieved. Online payment is integrated via different system: Mollie. |
| 7. | All activities that were alrady bookable online should remain online bookable. | Achieved. Even more activities are online bookable. |
| 8. | Employees should be able to make changes to resrevations, including:<br> a. adjusting the number of people attending<br> b. changeing the activity<br> c. customizing costs for specific groups | Achieved |
| 9. | Employee planning should be made with information retrieved from the reservation system. | Achieved |
| 10. | Employees should be able to make changes in the system, including:<br> a. creating a new activity<br> b. changing the details of an activity | Achieved |

*Table 6: Evaluation of requirements*

Leisure King offered limited functionality for customizing or managing activities and primarily supported the online reservation process. Therefore, it would not be useful to replace Stratech with Leisure King and make it their main reservation program. Nostium supports both back-office and front-office features, and functions as a comprehensive reservation system for De Wilgenweard. The end result, therefore, is positive.

It is hard to get a good overview of all the items that are booked via the map page. This page is not useful for the company. However, it is not a page that has to be useful. Without this feature, the perceived usefulness of the overall system is not impacted. Therefore, the end result is neutral.

Each activity is linked to a single accommodation in Nostium, meaning there is no option in choosing where an activity takes place. In reality, however, many activities can occur at different locations. A workaway has been found for this. Users can work well with alternative setup. It is, however, not fully optimal. The end result, therefore, is neutral.

When an option is added to a reservation in Nostium, it is not immediately visible in the planning board without opening the specific reservation. This results in a lack of clear overview of the booked options while such an overview is desired to have. However, users have adapted to this limitation. They require to be more careful in displaying information. In the end, the possibility for adding options to a reservation is perceived as positive.

### Desirable
The sales team consists of a mix of experienced and newer employees. An age gap is present as well. There were some things that needed to get used to. However, the complete sales team has a positive perception of the new system. The end result is positive.

### Delightful
De Wilgenweard believed Nostium could meet their needs when it was chosen as their reservation system. This confidence has been validated. They remain satisfied with their decision and are positively surprised about all the functionalities and features of the system. The end result is positive.

### Conclusion

Overall, most UX elements have been improved, which is highly positive. As indicated by Davis (1989), a positive attitude towards usage increases the likelihood of a successful system implementation.

Due to the improvement of the UX elements, both the perceived ease of use and perceived usefulness are positively influenced. This has a positive effect on the user's attitude. A positive user attitude is a key factor in ensuring a successful adoption of the new system.

## Experience of users
The following evaluation point to determine the user's attitude focuses on the users' experience with Nostium. Users were asked for their opinions, and overall, the feedback was positive. The team is enthusiastic about the system, recognizing its potential and functionality. While adapting to the new process takes some effort, it has been manageable for all users.

Evaluation points are discussed in the following sections.

### System performance
The system functions well overall. However, users noted that it operates slowly sometimes. Particularly when adjusting settings. Nostium recently updated the system to address the issue, but the improvement has been minimal. Fortunately, basic operations, such as retrieving information about reservations or making reservations, works faster.

### Information retrieval
The reports that can be retrieved through the reports page are not always useful. Users are still exploring which specific reports provide the most relevant data for their needs. One notable missing feature is a daily pricing breakdown, which would make insightful the revenue on a daily basis.

### Guest portal
Nostium is primarily designed as a guest-oriented reservation platform. The guest portal is optimally designed for that purpose. The wide variety of activities De Wilgenweard offers and the tailoring to the guests' needs does not fit into the guest portal. Therefore, De Wilgenweard focuses more on the back-office, which is not as perfect as the guest portal. However, since De Wilgenweard allowed reservations made

via the guest portal, a noticeable increase of bookings has come in. This has been beneficial and well-received by the team.

Also, users pleased with the removal of Leisure King, as they can now work with just one system. This has streamlined the workflow of the users.

### Planning board
The planning board in Nostium displays information in a clear manner. But compared to Stratech, much less information can be shown on a single screen. Users find it takes more time to gain a complete overview of the availability.

### Customizability
The email functionality has been experienced as less customizable than expected. More was expected from this.

It is well received that the pricing setup allows for much differentiation. The set up of these variations are time intensive. However, Nostium has introduced an update to streamline this process, making it easier to configure now.

### Collaboration with Nostium
Nostium is in constant development. The users perceive the company as very dedicated. Nostium regularly updates the system and actively implements client requests. This improved the confidence and reliability in Nostium, as they demonstrate the willingness to listen to improvement opportunities.

Nostium even exceeded the expectations of De Wilgenweard. They offer so many functionalities from which not even all are used yet. This is very promising for future opportunities for De Wilgenweard.

## Tasks users

With the implementation of Nostium within De Wilgenweard and the discontinuation of their old systems, Stratech and Leisure King, the tasks of the main users are slightly modified.

As can bee seen in figure 27, the booking process via the website has become more efficient. The risk of making errors in this process has been reduced. However, it is crucial to ensure that the system is properly configured to maintain this level of efficiency and accuracy.

Besides this improvement, there have been no significant changes to the users' tasks. The primary adjustment is that actions such as confirming, modifying, or declining a reservation request can now be completed via email. When a guest does this, it automatically updates the action in the reservation status within the system.
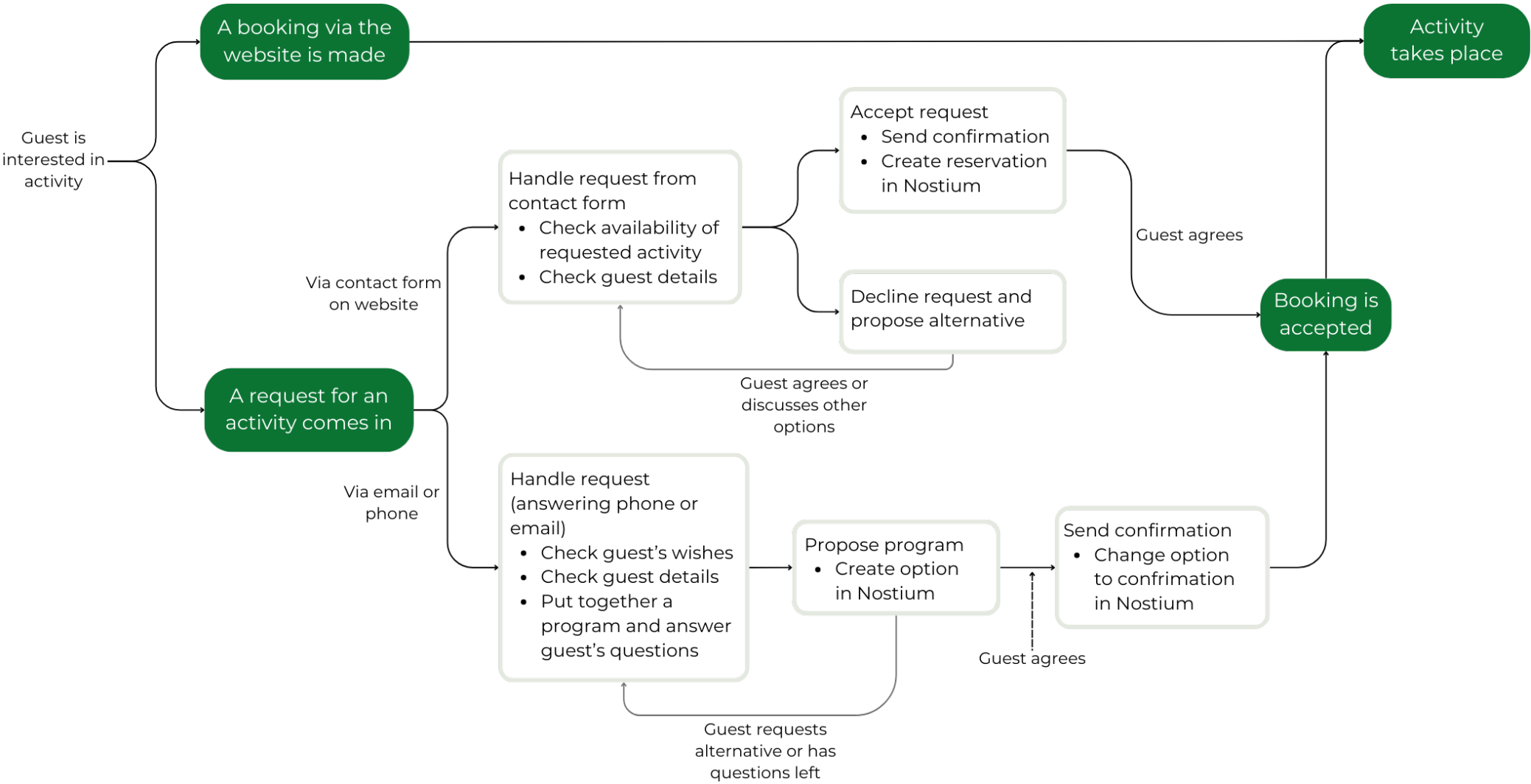


*Figure 27: Renewed task diagram*

# Conclusion, discussion, and recommendations

Part of concluding the thesis is answering the research questions formulated in the define phase.

The research question was formulated as follows:

How can the limitations of Nostium be dealt with to successfully integrate the reservation system into De Wilgenweard?

To answer the main research question, the sub-research questions are answered first.

How can the reservation system be set up in the best way possible for De Wilgenweard?

Research into the possibilities of the reservation system and its limitations was conducted. This provided valuable insights into Nostium and the problems with original setup for De Wilgenweard. The old systems were examined as well. This offered a clear understanding of the tasks and experiences associated with using these reservations systems. These findings are discussed in the discover phase.

From this information, requirements for the new system were identified. Focus points were established to get insights into improvement opportunities. This is discussed in the define phase.

Thereafter, based on the retrieved information, the system was set up. This is discussed in the develop phase. Input from main users have been included in the development process. Brainstorming and feedback ensured the setup aligned with the needs of De Wilgenweard.

To successfully achieve all of this, the System Integration Framework was used to guide and structure this process. The first three phases of the framework were completed to setup an effective reservation system.

How can a smooth transition from the old to the new reservation system be ensured?

The second sub-research question was answered by actively involving users in the process. They were mainly involved in the final phase of the design process: deliver phase. Testing was used to refine the developed setup to finalize the setup, allowing users to become familiar with they system and starting the transition process of transitioning information from the old

systems to the new one. To support this, manuals explaining the system features and user tasks were developed. The intensive support from the company supervisor ensured clarity and ease of use during the transition process, helping employees adapt to the new system seamlessly.

To achieve all of this, the fourth phase of the System Integration Framework was followed, building upon the successful completion of the first three phases.

*Main research question*
To answer the main research question, the application of the System Integration Framework aided in integration of the reservation system into De Wilgenweard. The identified limitations were addressed by finding solutions that fit to both the system and De Wilgenweard. While not all components of Nostium are an ideal fit for De Wilgenweard, a positive user experience has been established.

This positive outcome is a result of the integration process that ensured users were involved and supported throughout it. By providing clear manuals and extensive support throughout the training process, a successful transition and integration was achieved.

# Discussion

This thesis has contributed to the successful integration of a new reservation system, Nostium, within De Wilgenweard. This final chapter includes a discussion of the design results, an analysis of the usage of the proposed System Integration Framework, and an evaluation of the thesis process. Additionally, recommendations are given about each of these topics as well.

## Evaluation of the design
Nostium is fully operation at De Wilgenweard since January 2025, achieving a main goal of this thesis. Overall, the experience has been positive, as discussed in detail, evaluating the renewed attitude towards using. While the system is not flawless and requires some workarounds, solutions are available for all encountered issues.

De Wilgenweard is a company that offers a wide range of possibilities for its guests. While this diversity is a strength for the company, it presented challenges when the company's customizability and adaptability to guests needed to be translated to fit within the boundaries of a predefined system. This would however, present challenges for every other reservation system as well.

It became clear during the process that Nostium is still in active development. The developers frequently release updates, which demonstrates their commitment to improvement. Good communication with Nostium has helped in resolving issues that were encountered during the development process. Nostium offered solutions or forwarded the problems to their development team for further investigation. Promising updates awaits De Wilgenweard.

Lastly, the group of main users changed during the research process. Marjon, a long-term team member, left, and Sander joined the team. This might have changed perspective of the users, but it did not seem to have any influence.

## Evaluation framework
The System Integration Framework provided valuable guidance for the development and integration of the new reservation system at De Wilgenweard. Through the creation of this framework, a gap in literature was closed. The predictive elements of the Technology Acceptance Model were brought into practice and combined in a user-centered design process.

This section evaluates the proposed framework and its application.

The literature discussed in this thesis aligned well with the assignment, enabling the creation of a framework specifically tailored to guide this assignment. While the framework was adapted to De Wilgenweard's needs, a generic framework was first established. This ensured a well applied framework for this assignment, but the general framework lacks detailed tools and activities for each phase.

The framework leads the designer through the design process from beginning to end. All steps were fulfilled in this thesis, and each element was covered. Although the Double Diamond model is not completely linear, this process followed quite the linear process, phase by phase. However, within the phases, it got more mixed up and it became a more iterative process. This is not visualized and highlighted in the framework. The Double Diamond model, however, proved to be a suitable fit for this assignment.

Furthermore, the framework suggests that each phase is of equal size and duration. Even though they are all important, the phases are not equally distributed. This is not indicated in the framework. However, the Double Diamond framework does not show this either and it would be logical to adhere to that structure as well. In this use case, the discover and development phase were most extensive. Most time went into these stages. In scenarios where the developer/implementer of the system is an internal employee, there is already much more information known about the current

status of the company. This reduces the time needed for research during the discover phase. This will impact the size of that phase.

In each phase, users are involved, as indicated in the framework. However, they are not equally involved in each phase. The define phase is a convergent phase, where gained information from previous phase is structured and given meaning, therefore, new input from users is barely given. This is not a problem, but it is not clearly reflected in the framework.

Finally, the UX elements were not all evenly represented in the process. Effectiveness and usability elements were most present. This is logical, because the focus was also mainly on usability and effectiveness. A different focus would result in other oriented UX elements.

## Evaluation thesis process
The thesis process can best be described as iterative, both in structuring the research and conducting it. While the company's goals were clearly defined from the start and did not change throughout the process, the university's requirements were less straightforward. This resulted in a lot of iteration. The original research plan can be found in appendix J. With a fixed goal from the company and a changing perspective from the university, it was challenging to combine the two perspectives.

The research perspective changed throughout the process. As a result, there were moments when the assignment felt like two parallel processes rather than a single integrated project. Focus was often brought toward academic structuring and figuring out how to align the company goals with the university's criteria.

Despite these challenges, the overall results are successful. The company is pleased with the deliverable and the assignment aligns to the university's needs.

# Recommendations

Lastly, recommendations for further improvement are given.

## Recommendations to company
Nostium is continually in development, and updates are regularly performed. It is advised to stay informed about these updates and assess how they can improve the company's setup as well. However, it is also important to balance this with the time and effort required to implement the updates, considering that the current setup is already functional and effective.

Since the guest portal is online, there has been a noticeable increase in bookings, which are higher than in previous years. While it cannot be proven that these higher numbers are due to the new reservation system, it is likely a contributing factor. It is recommended to explore making more activities bookable online.

To be able to make more activities online bookable, a more fixed structure is desired. This is, however, not the current way of working at De Wilgenweard. It is recommended to examine the company's structure. Weighing against each other the importance of offering custom options to guests versus the benefits of automation and standardization. It may be worth examining whether reducing customization in favor of automated processes could streamline operations, even if it sometimes means saying 'no' to guest requests. Assessment should consider questions like: what would the company lose or gain by limiting customization? Does the shift align with the company's core values and goals? Would standardization provide significant operational benefits?

It is also recommended to look into the users' tasks, as they could change and lighten the workload when more processes are automated.

## Recommendations for the framework
While the System Integration Framework proved effective for this assignment, it has only been tested on a single case study. It is recommended to apply the framework in other cases as well to better evaluate its effectiveness.

The general framework lacks specific tools and activities for each phase. Adding these practical details to an updated version of the framework could provide designers with more actionable and precise guidelines for introducing new systems within other companies. Research should be executed about what tools would be best to include.

The framework works well with the Double Diamond model. However, it would be valuable to test its compatibility with other user-centered design processes, such as the UX Design Process, to make it broader applicable. For example, the typical UX design process includes the phases Empathize, Define, Ideate, Prototype, and Test, as shown in figure 28. This approach emphasizes understanding user needs and expectations, and testing and iterating on solutions (Gladys, 2023).

Testing the framework in such contexts could improve the framework by improving their adaptability to a company's needs.
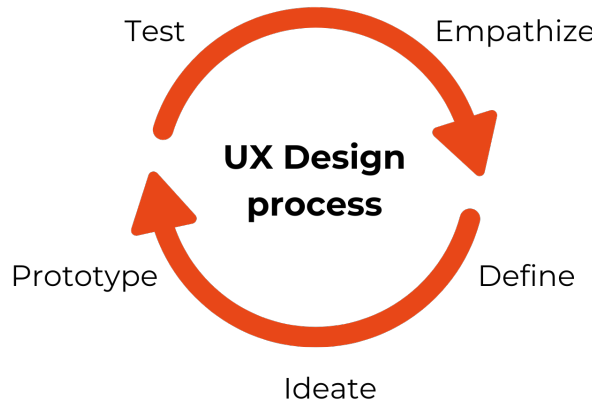


*Figure 28: UX design process*

# References

Abrehart, S. (2020, March 10). *The 7 key elements of good User Experience (UX) design*. Brand-Led Growth Agency | Focus7. https://focus7international.com/2020/03/10/the-7-key-elements-of-good-user-experience-ux-design/

Ball, B. J. (2022, June 6). *The Double Diamond: A universally accepted depiction of the design process*. Design Council. https://www.designcouncil.org.uk/our-resources/archive/articles/double-diamond-universally-accepted-depiction-design-process

Cc_Admin. (2024, 2 juli). *For whom - Nostium*. Nostium. https://nostium.com/for-whom/, for whom section.

Cooper, C. (2023, July 4). *Strategies for Successfully Integrating New Technologies into Your Business*. Medium. https://medium.com/@colin-cooper/strategies-for-successfully-integrating-new-technologies-into-your-business-6617a665f598

*Demystifying the Technology Acceptance Model (TAM): a comprehensive guide*. (n.d.). https://www.usersense.io/knowledge-base/usability-metrics/technology-acceptance-model-tam, what is the Technology Acceptance Model section.

Design Council. (n.d.). *The Double Diamond* - Design Council. https://www.designcouncil.org.uk/our-resources/the-double-diamond/

Gladys, O. (2023, September 23). *Understanding User Experience (UX) design*. Onwuka Gladys's Blog. https://gladyso.hashnode.dev/understanding-user-experience-ux-design

Juviler, J. (2023, July 10). *User-Centered Design: What It Is and How to Do It Right*. Hubspot. https://blog.hubspot.com/website/user-centered-design, what is User-Centered Design section.

Kanade, V. (2022, July). *What Is HCI (Human-Computer Interaction)? Meaning, Importance, Examples, and Goals*. Spiceworks. Retrieved June 5, 2024, from https://www.spiceworks.com/tech/artificial-intelligence/articles/what-is-hci/

Krug, S. (2000). *Don't make me think!: a common sense approach to Web usability*. Pearson Education India.

*LeisureKing reservation system; booked, paid, taken care of!* (n.d.). https://en.leisureking.nl/

Lu, J. (2022, 2 januari). *Benefits of Instruction Manuals: Why You Need Them & 8 Best Practices*. Scribe. https://scribehow.com/library/benefits-of-instruction-manuals

MacKenzie, I. S. (2024). *Human-computer interaction: An empirical research perspective*.

Marketing. (2023, October 27). *Stratech stopt haar activiteiten op de recreatiemarkt*. Blog Stratech. https://www.stratech.nl/nieuws/stratech-stopt-haar-activiteiten-op-de-recreatiemarkt

Mlekus, L., Bentler, D., Paruzel, A., Kato-Beiderwieden, A., & Maier, G. W. (2020). *How to raise technology acceptance: user experience characteristics as technology-inherent determinants*. Gruppe Interaktion Organisation Zeitschrift Für Angewandte Organisationspsychologie (GIO), 51(3), 273–283. https://doi.org/10.1007/s11612-020-00529-7

Mollie. (z.d.). *Betalingen en financiële oplossingen vereenvoudigd* - Mollie. https://www.mollie.com/nl/

*MplusKASSA*. (z.d.). https://www.mpluskassa.nl/

Pretwerk.nl. (2023, 5 november). *Stratech stopt met activiteiten in de leisure branche*. Pretwerk. https://pretwerk.nl/productnieuws/stratech-stopt-met-activiteiten-in-de-leisure-branche/84088

Sagnier, C., Loup-Escande, E., Lourdeaux, D., Thouvenin, I., & Vallery, G. (2020). *User Acceptance of Virtual Reality: An Extended Technology Acceptance Model*. International Journal Of Human-Computer Interaction, 36(11), 993–1007. https://doi.org/10.1080/10447318.2019.1708612

Salovaara, A., & Tamminen, S. (2009). *Acceptance or appropriation? A design-oriented Critique of Technology Acceptance Models*. In Springer eBooks (pp. 157–173). https://doi.org/10.1007/978-1-84800-385-9_8

Saste, S. (2023, June 1). *The Double Diamond concept: a pathway to successful design thinking*. https://www.linkedin.com/pulse/double-diamond-concept-pathway-successful-design-thinking-saste/

*Succesvol nieuwe technologie implementeren? Zo doe je dat*. (2023, July 17). tno.nl/nl. https://www.tno.nl/nl/newsroom/insights/2023/07/implementeren-nieuwe-technologie/

*Technology Acceptance Model (TAM model): alles wat je moet weten*. (n.d.). https://www.usersense.nl/kennisbank/usability-metrics/technology-acceptance-model-tam

UXPin. (2024, March 8). U*X design frameworks – What are the most useful ones?* Studio by UXPin. https://www.uxpin.com/studio/blog/design-

V, E. (2021, 27 december). *7 Key elements of Great UX Design* - UX Planet. Medium. https://uxplanet.org/7-key-elements-that-great-ux-design-must-have-ad1f121e4038

Venkatesh, V., & Bala, H. (2008). *Technology acceptance model 3 and a research agenda on interventions*. Decision sciences, 39(2), 273-315.

Venkatesh, V., & Davis, F. D. (2000). *A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies*. Management Science, 46(2), 186–204. https://doi.org/10.1287/mnsc.46.2.186.11926

WebEngine. (2021, March 22). *About us - Nostium*. Nostium. https://nostium.com/about-us/?lang=en

Weinberg, B. A. (2004). *Experience and technology adoption*. Available at SSRN 522302.

*What is Human-Computer Interaction (HCI)?* (2024, April 5). The Interaction Design Foundation. https://www.interaction-design.org/literature/topics/human-computer-interaction#what_is_human-computer_interaction_(hci)?-0

*What is User Experience (UX) Design?* (2023, October 19). The Interaction Design Foundation. https://www.interaction-design.org/literature/topics/ux-design, introduction section.

De Wilgenweard. (2022, 15 maart). *Over ons - De Wilgenweard Nijverdal*. De Wilgenweard Nijverdal: Dé Horeca- & Activiteitenlocatie van Overijssel. https://www.wilgenweard.nl/team-wilgenweard/, about the team section.

# Appendices

# Appendix A – AI statement

During the preparation of this work the author used Chat GPT in order to Improve readability of text by checking grammar, spelling and sentence structure. After using this tool/service, the author reviewed and edited the content as needed and takes full responsibility for the content of the work[1].

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[1] Elsevier. The use of AI and AI-assisted writing technologies in scientific writing. Accessed 02-05-2023. Available at: https://www.elsevier.com/about/policies/publishing-ethics/the-use-of-ai-and-aiassisted-writing-technologies-in-scientific-writing

# Appendix B - Implementatielijst

**Nostium**

## Welkom als nieuwe klant bij Nostium!

Welkom bij Nostium! Om ervoor te zorgen dat we uw persoonlijke Nostium-omgeving volledig kunnen afstemmen op uw behoeften en wensen, hebben we een implementatielijst opgesteld in Excel. Dit document is speciaal ontworpen om informatie te verzamelen over uw bedrijf en het aanbod van activiteiten en arrangementen die u wilt aanbieden.

Met behulp van deze implementatielijst kunnen we een gedetailleerd beeld krijgen van uw bedrijf en de nieuwe reserveringsomgeving uniek maken. We vragen u vriendelijk om alle relevante informatie in te vullen, zodat we een op maat gemaakte Nostium-ervaring kunnen creëren die perfect aansluit bij uw visie.

Mocht u tijdens het invullen van de implementatielijst vragen hebben of behoefte hebben aan ondersteuning, dan staat uw persoonlijke accountmanager altijd voor u klaar. Aarzel niet om contact met hen op te nemen voor assistentie of verduidelijking.

We zijn erg enthousiast om met u samen te werken en uw bedrijf te helpen groeien en bloeien met behulp van het Nostium reserveringssysteem. Uw persoonlijke Nostium-omgeving zal een centrale plek worden voor het beheren en aanbieden van uw activiteiten en arrangementen, en we streven ernaar om u de best mogelijke ervaring te bieden.

Dank u voor uw tijd en inzet bij het invullen van de implementatielijst. We kijken ernaar uit om van start te gaan en u te ondersteunen bij het creëren van uw persoonlijke Nostium omgeving.

**Alle gevraagde informatie verwerkt in dit document? Sla deze dan op en stuur hem per e-mail naar info@nostium.com.**

2

**Nostium**

**Gastinformatie**

Geef aan welke informatie de gast kan achterlaten of verplicht moet invullen bij het maken van een reservering.

| | | Zichtbaar | Verplicht | |
|---|---|---|---|---|
| E-mail adres | : | Ja | Ja | *Dit is vanuit Nostium richting de gast altijd een verplicht veld* |
| Voornaam | : | Ja | | |
| Tussenvoegsel | : | Ja | | |
| Achternaam | : | Ja | Ja | |
| Bedrijfsnaam | : | Ja | | |
| Telefoon | : | Ja | Ja | |
| Adres | : | Ja | | |
| Postcode | : | Ja | | |
| Plaatsnaam | : | Ja | | |
| Opmerking van de gast | : | Ja | | |
| Reden voor reservering | : | | | |
| Geslacht | : | | | |
| Geboortedatum | : | | | |
| Naam jarige | : | | | |

3

**Accommodaties & Units**

De indeling van het reserveringssysteem werkt op basis van diverse ruimtes. Deze ruimtes noemen we 'Accommodaties'. Deze worden gebruikt als basisruimte voor het aanbieden van een of meerdere activiteiten. Een ruimte kan werken met 'units' (boekbare onderdelen) of werken op basis van bezettingsaantallen. Een voorbeeld van een unit is bijvoorbeeld een bowlingbaan, restauranttafel, escaperoom etc.

| | Naam | Min. aantal personen per accommodatie | Max. aantal personen per accommodatie | Met units? | Aantal units | Naam per unit | Min. Aantal personen per unit | Max. Aantal personen per unit |
|---|---|---|---|---|---|---|---|---|
| 1 | Rietslenk | | | Ja | 17 | Tafel 1 | 1 | 4 |
| 2 | Jipkesbeltzaal | | | Ja | 12 | Tafel 1 | 1 | 4 |
| 3 | Reggezaal 1 | | | Ja | 7 | Tafel 1 | 1 | 4 |
| 4 | Reggezaal 2 | | | Ja | 18 | Tafel 1 | 1 | 4 |
| 5 | Terras | 1 | 90 | | | | | |
| 6 | Biergarten | 1 | 50 | | | | | |
| 7 | Hooiberg | 1 | 20 | | | | | |
| 8 | Grasterras | 1 | 20 | | | | | |
| 9 | Waterterras | 1 | 20 | | | | | |
| 10 | Externe zaal | 1 | 1000 | | | | | |
| 11 | Schuilenburg | | | Ja | 1 | Schuilenburg | 1 | 60 |
| 12 | Sportveld | 1 | 1000 | | | | | |
| 13 | Hotel | | | Ja | 12 | Kamer 1 | 1 | 2 |
| 14 | Bivak | 1 | 1000 | | | | | |
| 15 | Escape room Bunker | | | Ja | 1 | Bunker | 2 | 8 |
| 16 | Escape room Gentemen´s room | | | Ja | 1 | Gentlemen | 2 | 8 |
| 17 | Beat the Matrix | | | Ja | 8 | Groep 1 | 2 | 4 |
| 18 | Escape the Forest | | | Ja | 3 | Spel 1 | 7 | 13 |
| 19 | Museum | | | Ja | 1 | Museum | 1 | 5 |
| 20 | Klimwand | | | Ja | 1 | Klimwand | 2 | 12 |
| 21 | Activiteiten terrein | 1 | 1000 | | | | | |
| 22 | Bos | 1 | 1000 | | | | | |
| 23 | Handboogbaan | | | Ja | 1 | Baan | 1 | 20 |
| 24 | Speleo | | | Ja | 1 | Speleo | 1 | 20 |
| 25 | Abseilen | | | Ja | 1 | Abseilen | 1 | 15 |
| 26 | Gravity Fall | | | Ja | 1 | Grafity Fall | 1 | 15 |
| 27 | Touwparcours | | | Ja | 1 | Touwparcours | 1 | 15 |
| 28 | Slingertouw | | | Ja | 1 | Slingertouw | 1 | 20 |
| 29 | Vlotbouwplek | | | Ja | 4 | Plek 1 | 1 | 10 |

| # | Naam | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 30 | Kano's | | | Ja | 17 | Kano 1 | 1 | 3 |
| 31 | Sups | | | Ja | 20 | Sup 1 | 1 | 1 |
| 32 | Sit-on-tops | | | Ja | 10 | Kayak 1 | 1 | 1 |
| 33 | Groene kayaks | | | Ja | 2 | Kayak 1 | 1 | 1 |
| 34 | Mountainbikes XS | | | Ja | 1 | Mtb 1 | 1 | 1 |
| 35 | Mountainbikes S | | | Ja | 2 | Mtb 1 | 1 | 1 |
| 36 | Mountainbikes M | | | Ja | 5 | Mtb 1 | 1 | 1 |
| 37 | Mountainbikes L | | | Ja | 5 | Mtb 1 | 1 | 1 |
| 38 | Mountainbikes XL | | | Ja | 2 | Mtb 1 | 1 | 1 |
| 39 | E-mtb's M | | | Ja | 2 | E-mtb 1 | 1 | 1 |
| 40 | E-mtb's L | | | Ja | 2 | E-mtb 1 | 1 | 1 |
| 41 | Touwrace | | | Ja | 1 | Touwrace | 1 | 16 |
| 42 | Fort Boyard finale | | | Ja | 1 | FB finale | 1 | 16 |
| 43 | Extern huur materiaal | 1 | 1000 | | | | | |
| 44 | Watertoren | | | Ja | 1 | Watertoren | 1 | 30 |
| 45 | Thuis | 1 | 1000 | | | | | |
| 46 | Saboteur | | | Ja | 4 | Groep 1 | 8 | 15 |
| 47 | Fort Boyard | | | Ja | 4 | Groep 1 | 10 | 16 |
| 48 | Expeditie Robinson | | | Ja | 4 | Groep 1 | 10 | 24 |
| 49 | Pizzajolly's | | | Ja | 2 | Oven 1 | 1 | 20 |
| 50 | Piramides | | | Ja | 10 | Piramide | 2 | 5 |
| 51 | | | | | | | | |
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**Nostium**

**Activiteiten**

Geef aan welke activiteiten je aanbiedt binnen de locatie. Geef per activiteit de instellingen weer in basis van de bepaling in tijdsduur, verdeling en prijsberekening. Eventueel is het mogelijk om straks in Nostium een uitgebreidere instelling toe te passen voor een activiteit. In dit document vragen we altijd om de basisinformatie. Indien er aanvullende informatie nodig is, kun je deze altijd aanleveren.

| # | Naam Activiteit | Accommodatie | Min. aantal personen per reservering | Max. aantal personen per reservering | Tijdsduur (in minuten) | Aanbod per (in minuten) | Max. Tijdsduur (in minuten) | Unit start positie | Aantal units bepalen | Prijs cacluleren op | Aantal personen opgeven | Prijs | Volwassen prijs | Kinder prijs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Ontvangst | Rietslenk | 1 | 120 | 30 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 2 | Pauze | Rietslenk | 1 | 120 | 30 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 3 | Eindpauze | Rietslenk | 1 | 120 | 30 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 4 | Ontbijt | Rietslenk | 1 | 120 | 60 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 5 | Lunch | Rietslenk | 1 | 120 | 60 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 6 | Diner | Rietslenk | 1 | 120 | 120 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 7 | Borrelen | Rietslenk | 1 | 120 | 30 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 8 | Barbezoek overnachters | Rietslenk | 1 | 120 | 30 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 9 | Vergaderen | Jipkesbeltzaal | 1 | 50 | 60 | | | Standaard | Op benodigheid | Aantal personen per uur | Met volwassenen en kinderen | € 4,00 | | |
| 10 | Workshop | Jipkesbeltzaal | 1 | 100 | 60 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 11 | Overnachting | Hotel | 1 | 26 | 240 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 11,00 | | |
| 12 | Overnachting bivak | Bivak | 1 | 120 | 240 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 10,00 | | |
| 13 | Key of Life | Rietslenk | 4 | 50 | 270 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 27,50 | | |
| 14 | Museum | Museum | 4 | 50 | 10 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 15 | Foto spel + vis | Activiteiten terrein | 8 | 15 | 45 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 16 | Memorie sabo | Activiteiten terrein | 8 | 15 | 30 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 17 | Veiling | Activiteiten terrein | 8 | 15 | 15 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 18 | Vertrouwen | Activiteiten terrein | 8 | 15 | 15 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 19 | Alles op een rij | Activiteiten terrein | 8 | 15 | 15 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 20 | Eilanden | Activiteiten terrein | 8 | 15 | 15 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 21 | De test | Activiteiten terrein | 8 | 15 | 15 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 22 | Touwparcours | Touwparcours | 10 | 20 | 45 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 13,50 | | |
| 23 | Klimwand | Klimwand | 10 | 12 | 45 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 12,50 | | |
| 24 | De fles | Activiteiten terrein | 10 | 16 | 15 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 25 | Speleologie | Speleo | 10 | 16 | 30 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 6,50 | | |
| 26 | Touwrace | Touwrace | 10 | 16 | 15 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 27 | Finale fb | Fort Boyard finale | 10 | 16 | 30 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 28 | Handboog | Handboogbaan | 10 | 24 | 30 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 9,00 | | |
| 29 | Goten + blokjes | Activiteiten terrein | 10 | 24 | 30 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 30 | Hoepelworstelen | Activiteiten terrein | 10 | 24 | 30 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 31 | Finale exp rob | Activiteiten terrein | 10 | 24 | 30 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 32 | Memorie exp rob | Activiteiten terrein | 10 | 24 | 30 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 33 | Vuurmaken | Activiteiten terrein | 10 | 24 | 30 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 34 | Rups + blokjes | Activiteiten terrein | 10 | 24 | 30 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 35 | Tangram + vis | Activiteiten terrein | 10 | 24 | 30 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 36 | Kanotrekken | Kano's | 10 | 24 | 30 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 37 | Kano verhuur (1 uur) | Kano's | 1 | 51 | 90 | | | Standaard | Op benodigheid | Aantal units per uur | Met volwassenen en kinderen | € 16,00 | | |
| 38 | Sup verhuur (1 uur) | Sups | 1 | 20 | 60 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 12,50 | | |
| 39 | Groene kayak (1 uur) | Groene kayaks | 1 | 2 | 90 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 8,00 | | |
| 40 | Sit-on-Top (1 uur) | Sit-on-tops | 1 | 10 | 60 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 8,00 | | |
| 41 | Kompasmysterie | Bos | 1 | 60 | 120 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 5,00 | | |
| 42 | Navigatie Chal | Bos | 1 | 60 | 150 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 7,50 | | |
| 43 | Gps tocht | Bos | 1 | 120 | 120 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € - | | |
| 44 | Fietsverhuur | Extern huur materiaal | 1 | 120 | 120 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 12,50 | | |
| 45 | Mtb verhuur XS | Mountainbikes XS | 1 | 1 | 210 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 20,00 | | |
| 46 | Mtb verhuur S | Mountainbikes S | 1 | 2 | 210 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 20,00 | | |
| 47 | Mtb verhuur M | Mountainbikes M | 1 | 5 | 210 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 20,00 | | |
| 48 | Mtb verhuur L | Mountainbikes L | 1 | 5 | 210 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 20,00 | | |
| 49 | Mtb verhuur XL | Mountainbikes XL | 1 | 2 | 210 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 20,00 | | |
| 50 | E-mtb verhuur M | E-mtb's M | 1 | 2 | 210 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 32,50 | | |
| 51 | E-mtb verhuur L | E-mtb's L | 1 | 2 | 210 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 32,50 | | |
| 52 | Mtb met gids | Bos | 8 | 15 | 120 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 13,50 | | |
| 53 | Nightbiken | Bos | 8 | 15 | 120 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 22,50 | | |
| 54 | E-chopper | Extern huur materiaal | 10 | 50 | 120 | | | Standaard | Op benodigheid | Aantal personen per uur | Met volwassenen en kinderen | € 15,00 | | |
| 55 | Abseilen | Abseilen | 10 | 15 | 45 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 13,50 | | |
| 56 | Gravity Fall | Gravity Fall | 10 | 15 | 45 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 15,00 | | |
| 57 | Slingertouw | Slingertouw | 10 | 20 | 30 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 7,50 | | |
| 58 | Vlot bouwen | Vlotbouwplek | 10 | 40 | 60 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 10,00 | | |
| 59 | Swo | Activiteiten terrein | 10 | 100 | 30 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € 6,50 | | |

| # | Naam | Locatie | Min | Max | Duur | | | Type | Beschikbaarheid | Eenheid | Doelgroep | € | Prijs | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 60 | Teambuildingstocht | Bos | 10 | 100 | 180 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | 32,50 | | |
| 61 | Teambuildingspad | Watertoren | 10 | 30 | 120 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | 27,50 | | |
| 62 | Themafeest | Reggezaal 2 | 20 | 100 | 120 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | 22,50 | | |
| 63 | Pubquiz | Jipkesbeltzaal | 15 | 120 | 90 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | 17,50 | | |
| 64 | Swingo | Reggezaal 2 | 15 | 120 | 90 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | 17,50 | | |
| 65 | CSI Moordspel | Reggezaal 1 | 10 | 30 | 150 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | 22,50 | | |
| 66 | Alleskunner | Reggezaal 2 | 20 | 40 | 120 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | 22,50 | | |
| 67 | Rijkshotel de Nor | Thuis | 1 | 100 | 90 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | 15,00 | | |
| 68 | De Schaduwspits | Thuis | 1 | 100 | 120 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | 11,00 | | |
| 69 | Sagenvertellingen | Schuilenburg | 10 | 30 | 45 | | | Standaard | Op benodigheid | Vaste prijs | Met volwassenen en kinderen | € | 150,00 | | |
| 70 | Sagenmysterie | Schuilenburg | 10 | 30 | 60 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | 8,50 | | |
| 71 | Activiteiten extern | Externe zaal | 1 | 100 | 60 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | - | | |
| 72 | Themafeest extern | Externe zaal | 20 | 100 | 120 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | - | | |
| 73 | Saboteur | Saboteur | 8 | 15 | 240 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | 32,50 | | |
| 74 | Fort Boyard | Fort Boyard | 10 | 16 | 240 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | 32,50 | | |
| 75 | Expeditie Robinson | Expeditie Robinson | 10 | 24 | 240 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | 31,00 | | |
| 76 | Pizzajolly | Pizzajolly's | 10 | 40 | 120 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | 25,75 | | |
| 77 | Sterrit | Externe zaal | 1 | 100 | 135 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | 15,00 | | |
| 78 | Kano by Night | Kano's | 1 | 51 | 60 | | | Standaard | Op benodigheid | Aantal units per uur | Met volwassenen en kinderen | € | 20,00 | | |
| 79 | Sup by Night | Sups | 1 | 20 | 60 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | 14,50 | | |
| 80 | Dauwpeddelen kano | Kano's | 1 | 51 | 60 | | | Standaard | Op benodigheid | Aantal units per uur | Met volwassenen en kinderen | € | 22,50 | | |
| 81 | Dauwpeddelen sup | Sups | 1 | 20 | 60 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | 22,50 | | |
| 82 | Camperovernachting | Externe zaal | 1 | 1000 | 240 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | 5,00 | | |
| 83 | Escape room Bunker | Escape room Bunker | 2 | 8 | 60 | 90 | | Standaard | Op benodigheid | Aantal units | Met volwassenen en kinderen | € | 130,00 | | |
| 84 | Escape room Gentlemen | Escape room Gentemen's room | 2 | 8 | 60 | 90 | | Standaard | Op benodigheid | Aantal units | Met volwassenen en kinderen | € | 130,00 | | |
| 85 | Beat the Matrix | Beat the Matrix | 4 | 32 | 90 | 90 | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | 24,50 | | |
| 86 | Escape the Forest | Escape the Forest | 7 | 13 | 90 | 30 | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | 19,00 | | |
| 87 | Feestavond | Reggezaal 2 | 20 | 120 | 240 | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | - | | |
| 88 | Ballenkanon | Reggezaal 1 | | | | | | Standaard | Op benodigheid | Aantal personen | Met volwassenen en kinderen | € | - | | |
| 89 | | | | | | | | | | | | | | | |
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| 100 | | | | | | | | | | | | | | | |

# Nostium

**Arrangementen**

Wanneer je binnen je locatie ook combinaties aanbiedt in de vorm van arrangementen, dan geef je dat hier op. Je kunt de arrangementen opstellen vanuit de aangegeven activiteiten. Geef hierin de volgorde aan, tijdsduur per activiteit, persoonsaantallen en de berekening van prijs. Ook hiervoor geldt dat het gaat om de basisinstellingen. Eventuele uitbreiding is straks nog mogelijk.

Meer dan 4 act?

| | Naam arrangement | Naam activiteit 1 | Naam activiteit 2 | Naam activiteit 3 | Naam activiteit 4 | Activiteit volgorde vast? | Tijdsduur activiteit 1 in minuten | Tijdsduur activiteit 2 in minuten | Tijdsduur activiteit 3 in minuten | Tijdsduur activiteit 4 in minuten | Aantal personen opgeven | Volwassen prijs | Kinder prijs | Prijs per persoon |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Pizzajolly | Pizzajolly | Diner | | | Ja | 120 | 120 | | | Met volwassenen en kinderen | | | |
| 2 | Saboteur | Saboteur | Ontvangst | Foto spel + vis | Memorie sabo | Nee | | | | | Met volwassenen en kinderen | | | |
| 3 | Fort Boyard | Fort Boyard | Ontvangst | Touwparcours | Speleologie | Nee | | | | | Met volwassenen en kinderen | | | |
| 4 | Expeditie Robinson | Expeditie Robinson | Ontvangst | Handboog | Kanotrekken | Nee | | | | | Met volwassenen en kinderen | | | |
| 5 | Schoolreisje Avontuur | Slingertouw | Kano verhuur (1 uur) | Handboog | Speleologie | Nee | | | | | Met volwassenen en kinderen | | | |
| 6 | Schoolreisje Beleef | Kano verhuur (1 uur) | Speleologie | Slingertouw | Vlot bouwen | Nee | | | | | Met volwassenen en kinderen | | | |
| 7 | Bachelor | Touwparcours | Speleologie | Ballenkanon | Gravity Fall | Nee | | | | | Met volwassenen en kinderen | | | |
| 8 | Key of Life | Ontvangst | Key of Life | Diner | Borrelen | Ja | | | | | Met volwassenen en kinderen | | | |
| 9 | Schoolreisje Samenwerken en | Speleologie | Slingertouw | Handboog | Swo | Nee | | | | | Met volwassenen en kinderen | | | |
| 10 | | | | | | | | | | | | | | |
| 11 | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | |
| 13 | | | | | | | | | | | | | | |
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8

**Opties**

Zijn er toevoegingen aan activiteiten of arrangementen in de vorm van upselling of gratis af te nemen opties? Dan horen we dat graag. Geef daarbij een eventuele prijs aan en bij welke activiteit(en) of arrangement(en) deze optie gewenst is. Ook in het geval van opties geldt dat er een mogelijkheid is om dit verder uit te breiden, zoals met een eventuele vraagstelling, in Nostium straks. We vragen ook hiervan om de basis.

| # | Naam optie | Prijs calculeren op | Prijs | Prijs Volwassene | Prijs Kind | Gekoppelde activiteit 1 | Gekoppelde activiteit 2 | Gekoppelde activiteit 3 | Gekoppelde activiteit 4 | Gekoppelde arrangement 1 | Gekoppelde arrangement 2 | Gekoppelde arrangement 3 | Gekoppelde arrangement 4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Koffie met petit four | Per persoon | € 5,25 | | | Ontvangst | Pauze | Eindpauze | | | | | |
| 2 | Koffie met kozak | Per persoon | € 5,40 | | | Ontvangst | Pauze | Eindpauze | | | | | |
| 3 | Koffie met cake | Per persoon | € 4,85 | | | Ontvangst | Pauze | Eindpauze | | | | | |
| 4 | Koffie met krentewegge | Per persoon | € 5,20 | | | Ontvangst | Pauze | Eindpauze | | | | | |
| 5 | Koffie met gebak | Per persoon | € 5,95 | | | Ontvangst | Pauze | Eindpauze | | | | | |
| 6 | Koffie met muffin | Per persoon | € 5,60 | | | Ontvangst | Pauze | Eindpauze | | | | | |
| 7 | Ontbijtbuffet | Per persoon | € 15,75 | | | Ontbijt | | | | | | | |
| 8 | Ontbijt schoolversie | Per persoon | € 11,75 | | | Ontbijt | | | | | | | |
| 9 | Ontbijt bivak | Per persoon | € 13,90 | | | Ontbijt | | | | | | | |
| 10 | Lunchbuffet | Per persoon | € 16,95 | | | Lunch | | | | | | | |
| 11 | Lunch schoolversie | Per persoon | € 11,75 | | | Lunch | | | | | | | |
| 12 | Lunchpakket A | Per persoon | € 9,95 | | | Kano verhuur | Navigatie Chal | Kompasmysterie | | | | | |
| 13 | Lunch bivak | Per persoon | € 13,90 | | | Lunch | | | | | | | |
| 14 | Driegangendiner | Per persoon | € 35,95 | | | Diner | | | | | | | |
| 15 | Driegangendiner deluxe | Per persoon | € 38,95 | | | Diner | | | | | | | |
| 16 | Diner schoolversie | Per persoon | | | | Diner | | | | | | | |
| 17 | Barbecue | Per persoon | | € 27,50 | € 16,50 | Diner | | | | | | | |
| 18 | Wilgenweardbuffet | Per persoon | € 27,50 | | | Diner | Themafeest | Feestavond | | | | | |
| 19 | Stamppotbuffet | Per persoon | € 21,95 | | | Diner | | | | | | | |
| 20 | Happerijbuffet | Per persoon | € 20,95 | | | Diner | | | | | | | |
| 21 | Sportmaaltijd | Per persoon | | | | Diner | | | | | | | |
| 22 | Kinderplate | Per persoon | € 7,25 | | | Diner | | | | | | | |
| 23 | Pizzajolly | Per persoon | € 31,00 | | | Diner | Pizzajolly | | | | | | |
| 24 | Diner Bivak | Per persoon | | | | Diner | | | | | | | |
| 25 | Ik hou van Holland | Per persoon | € 22,50 | | | Themafeest | | | | | | | |
| 26 | De Jongens tegen de Meisjes | Per persoon | € 22,50 | | | Themafeest | | | | | | | |
| 27 | Do you remember | Per persoon | € 22,50 | | | Themafeest | | | | | | | |
| 28 | Casinoavond | Per persoon | € 22,50 | | | Themafeest | | | | | | | |
| 29 | Patat bij diner | Per persoon | € 2,25 | | | Diner | Pizzajolly | | | | | | |
| 30 | Bittergarnituur | Per persoon | € 0,75 | | | Pauze | Borrelen | Eindpauze | | | | | |
| 31 | Picknickmand | Per persoon | € 14,95 | | | Sterrit | Kano verhuur | Kompasmysterie | Navigatie Chal | | | | |
| 32 | Borrelbox | Per persoon | € 8,65 | | | Sterrit | | | | | | | |
| 33 | Lunchpakket B | Per persoon | € 14,95 | | | Kompasmysterie | Navigatie Chal | Kanotrekken | | | | | |
| 34 | Toeristenbelasting | Per persoon | € 0,80 | | | Overnachting | Overnachting bivak | Camperovernachting | | | | | |
| 35 | Lakenpakket | Per persoon | € 6,00 | | | Overnachting | | | | | | | |
| 36 | Handoeken pakket | Per persoon | € 4,00 | | | Overnachting | | | | | | | |
| 37 | Opgemaakt bed | Per persoon | € 5,00 | | | Overnachting | | | | | | | |
| 38 | Eénpersoonstoeslag | Per persoon | € 7,50 | | | Overnachting | | | | | | | |
| 39 | Weekend toeslag | Per persoon | € 2,00 | | | Overnachting | | | | | | | |
| 40 | Groepskorting | Per persoon | € (2,00) | | | Overnachting | | | | | | | |
| 41 | Sterrit Markelo | Aantal keer | € 15,00 | | | Sterrit | | | | | | | |
| 42 | Sterrit Dalfsen | Aantal keer | € 15,00 | | | Sterrit | | | | | | | |
| 43 | Sterrit Salland | Aantal keer | € 15,00 | | | Sterrit | | | | | | | |
| 44 | Drankarrangement 2 uur | Per persoon | € 19,50 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 45 | Ontbijtbuffet deluxe | Per persoon | € 21,00 | | | Ontbijt | | | | | | | |
| 46 | Lunchbuffet deluxe | Per persoon | € 21,50 | | | Lunch | | | | | | | |
| 47 | Drankarrangement 3 uur | Per persoon | € 24,50 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 48 | Drankarrangement 4 uur | Per persoon | € 27,50 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 49 | Drankarrangement 5 uur | Per persoon | € 31,50 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 50 | Drankarrangement 6 uur | Per persoon | € 35,50 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 51 | Drankarrangement plus 2 uur | Per persoon | € 22,50 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 52 | Drankarrangement plus 3 uur | Per persoon | € 26,50 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 53 | Drankarrangement plus 4 uur | Per persoon | € 30,50 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 54 | Drankarrangement plus 5 uur | Per persoon | € 34,50 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 55 | Drankarrangement 18- 4 uur | Per persoon | € 24,50 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 56 | Drankarrangement hapjes | Per persoon | € 1,20 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 57 | Drankarrangement compleet | Per persoon | € 7,00 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 58 | Consumptiemunt | Per persoon | € 3,30 | | | Feestavond | Borrelen | Themafeest | Pauze | | | | |
| 59 | Barbecue winter | Per persoon | € 33,50 | | | Diner | | | | | | | |
| 60 | Barbecue deluxe | Per persoon | € 33,95 | | | Diner | | | | | | | |
| 61 | Barbecue XL | Per persoon | € 33,95 | | | Diner | | | | | | | |
| 62 | Barbecue vegetarisch | Per persoon | € 25,90 | | | Diner | | | | | | | |
| 63 | Diner (hoofd) | Per persoon | € 21,95 | | | Diner | | | | | | | |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 64 | Diner (voor) | Per persoon | € 7,75 | | | Diner | | | | | | |
| 65 | Diner (na) | Per persoon | € 7,95 | | | Diner | | | | | | |
| 66 | Pubquiz | Per persoon | € 17,50 | | | Feestavond | Borrelen | | | | | |
| 67 | Swingo | Per persoon | € 17,50 | | | Feestavond | Borrelen | | | | | |
| 68 | Hamburgerjolly | Per persoon | € 24,75 | | | Diner | | | | | | |
| 69 | Dessertbuffet deluxe | Per persoon | € 12,95 | | | Diner | Feestavond | Themafeest | | | | |
| 70 | Winterse lunchtafel | Per persoon | € 19,50 | | | Lunch | | | | | | |
| 71 | Sportersontbijt | Per persoon | € 18,95 | | | Ontbijt | | | | | | |
| 72 | Tweegangendiner | Per persoon | € 28,95 | | | Diner | | | | | | |
| 73 | Djembee | Aantal keer | € 265,00 | | | Workshop | | | | | | |
| 74 | Teamtrainer (coach) | Aantal keer | € 250,00 | | | Teambuildingstocht | Teambuildingspad | | | | | |
| 75 | Mtb gids | Per persoon | € 13,50 | | | Mtb verhuur S | Mtb verhuur XS | Mtb verhuur M | Mtb verhuur L | | | |
| 76 | Barbecue kok | Aantal keer | € 85,00 | | | Diner | | | | | | |
| 77 | Wilgenweardbuffet deluxe | Per persoon | € 33,95 | | | Diner | Feestavond | Themafeest | | | | |
| 78 | Stamppotbuffet deluxe | Per persoon | € 30,75 | | | Diner | Feestavond | Themafeest | | | | |
| 79 | Winterbuffet | Per persoon | € 31,25 | | | Diner | Feestavond | Themafeest | | | | |
| 80 | Biologisch pastabuffet | Per persoon | € 25,95 | | | Diner | Feestavond | Themafeest | | | | |
| 81 | Hapjesbuffet | Per persoon | € 19,95 | | | Diner | Feestavond | Themafeest | | | | |
| 82 | Hapjesbuffet Holland | Per persoon | € 16,95 | | | Diner | Feestavond | Themafeest | | | | |
| 83 | Broodje hamburger met frites | Per persoon | € 12,50 | | | Diner | Lunch | | | | | |
| 84 | Ijsbuffet | Per persoon | € | | | Diner | Feestavond | Themafeest | | | | |
| 85 | High Tea | Per persoon | € 20,00 | | | Borrelen | Lunch | | | | | |
| 86 | Europees buffet incl. soep | Per persoon | € 35,95 | | | Diner | | | | | | |
| 87 | Europees buffet zonder soep | Per persoon | € 30,95 | | | Diner | | | | | | |
| 88 | Driegangendiner Key of Life | Per persoon | € 37,50 | | | Key of Life | | | | Key of Life | | |
| 89 | Cocktail Key of Life | Per persoon | € 7,50 | | | Key of Life | | | | Key of Life | | |
| 90 | Mocktail Key of Life | Per persoon | € 7,50 | | | Key of Life | | | | Key of Life | | |
| 91 | | | | | | | | | | | | |
| 92 | | | | | | | | | | | | |
| 93 | | | | | | | | | | | | |
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| 98 | | | | | | | | | | | | |
| 99 | | | | | | | | | | | | |
| 100 | | | | | | | | | | | | |

**Alle gevraagde informatie verwerkt in dit document? Sla het document dan op en stuur hem per e-mail naar info@nostium.com.**

Bedankt voor het invullen van de implementatielijst voor uw persoonlijke Nostium-omgeving! We waarderen uw tijd en inzet bij het verstrekken van de benodigde informatie.

Nu u alle gevraagde gegevens heeft ingevuld, is het belangrijk om het bestand op te slaan en naar ons te sturen. Gelieve het Excel-bestand op te slaan op een geschikte locatie op uw computer of netwerk.

Om het bestand naar ons te verzenden, kunt u een e-mail sturen naar info@nostium.com. Voeg het opgeslagen Excel-bestand als bijlage toe aan de e-mail. Vergeet niet om in de e-mail te vermelden dat u het ingevulde implementatiebestand meestuurt.

Indien er bepaalde informatie was die u niet kon verwerken in het Excel-bestand, maar die wel van belang is voor de inrichting van uw Nostium-omgeving, verzoeken wij u vriendelijk om dit in de e-mail aan te geven. We zullen uw aanvullende informatie zorgvuldig bekijken en ons best doen om deze in overweging te nemen bij de verdere implementatie.

Mocht u nog vragen hebben of assistentie nodig hebben, aarzel dan niet om contact op te nemen met uw persoonlijke accountmanager. Ze staan klaar om u te helpen en eventuele onduidelijkheden op te helderen.

Nogmaals bedankt voor uw samenwerking. We kijken ernaar uit om uw Nostium-omgeving te creëren en uw bedrijf te ondersteunen bij het aanbieden van al uw reserveringen.

# Appendix C - Logbook engaging with users/research activities



| Activity | Dates |
|---|---|
| Assignment introduction | E 1, 3 |
| **Discover** | |
| *Current status of company* | |
| Activity analysis | D; E: 2, 3 |
| Stakeholders analysis | D; E 1, 2, 3 |
| Task analysis | E 3 |
| Stratech - working of system | D; E 1, 3 |
| Stratech - experience | D; E 1, 3 |
| Leisure King - working of system | D; E 3, 4 |
| Leisure King - experience | D; E 3, 4 |
| *New system* | |
| Nostium - working of system | D; E 1 |
| Nostium - initial setup | D; E 1 |
| **Define** | |
| Focus points | D |
| Requirement specification | E 1, 3 |
| Expectation management | E 1, 3 |
| **Develop** | |
| Nostium developing: brainstorming | D; E 1 |
| Nostium developing: developing and prototyping | D; E 1, 3, 4 |
| Nostium developing: testing | D; E 1 |
| Nostium developing: guest portal | D; E 1, 4 |
| **Deliver** | |
| Testing as a whole | E 1 |
| Testing and transitioning | E 1, 2, 4, 5 |
| Integration | E 1, 4, 5 |
| **Evaluation** | E 1, 2, 4, 5 |

Tom = 1
Herman = 2
Marjon = 3
Marit = 4
Sander = 5
Desk research = D
Engaging with users = E

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# Appendix D - UX Elements and its influence

| UX element | Description | Influence | (Retrieved by) |
|---|---|---|---|
| Effective | A one-size-fits-all setup for the reservation system might not be suitable for each activity, as the offer of De Wilgenweard is very diverse. | Negative, as the initial version is not effective to all the different aspects yet. Customization is needed. | Activity analysis |
| Effective | A lack of clear information to external stakeholders could result in operational issues, such as insufficient stock or overbooking of materials. | Negative, as mistakes do not contribute to a good operation of the system. | Stakeholder analysis |
| Desirable | The sales team consists of different types of people. The mix of experienced and relatively new employees, as well as the age difference, creates a dynamic where some users are highly familiar with the old systems, while others are less accustomed and potentially more open to adapting to the new system. | Both positive and negative. Experienced users know how to manage the old systems, while unexperienced users stumble over the flaws of the system and are open to something new. Whereas something new need time and effort to get used to for the experienced users. | Main users |
| Efficient | The sales team has to check Leisure King regularly on new reservations and must transfer incoming reservations from Leisure King to Stratech manually to ensure availability remains up to date in their main reservation system. This also needs to be done the other way around, to keep an up-to-date availability for online reservations in Leisure King as well. | Negative, as users need to execute duplicate work. | Users – main tasks |
| Effective | Working with two different systems increases the chance of making mistakes. If a reservation is forgotten to be transferred to one of the systems, it is possible that overbooking happens. This means that there is not enough space or material for one of the reservations, which would then have to be cancelled. | Negative, as mistakes do not contribute to an effective system. | Old systems |
| Efficient | Stratech requires some manual adjustments when reservations are created in the system. Activities have a default duration of 30 minutes, which often needs to be changed manually to the right duration. Also, multi-part | Negative. Users often have to manually adjust settings. This takes extra time. | Old systems - Stratech |

| | activities are not always scheduled in sequence and must be manually reordered. | | |
|---|---|---|---|
| Useful | The existence of the planning board appears very useful and is a function users use much | Positive. This function makes it possible for the users to have an overview of the availability of activities and with that they can make reservations. | Old systems - Stratech |
| Useful | Leisure King's functionalities are quite limited when it comes to setting up or modifying activities. There are fewer customization options available compared to Stratech, and for De Wilgenweard it only serves for managing online reservations. For online reservations, the system functions well. However, it does not have a proper planning board or another way to provide a good overview and planning of the reservations that are made. Without this overview, it becomes much harder for employees to manage the other reservations that cannot be booked online. | Negative. Although the online reservations work well, Leisure King is perceived as insufficient to work with as their main reservation system. | Old systems - Stratech |
| Delightful | De Wilgenweard believes the new reservation System Nostium can address their demands. | Positive. There is confidence in the working of this system | Nostium |
| Useful/learnable? | The organization of the planning board differs from Stratech and Nostium. There is a different layout and working of the planning board where users need to get used to. | Useful negative, as it may cause confusion. However, it is a process of getting used to. Learnable is therefore positive. | Functionalities Nostium - planning board |
| Useful | It is hard to get a good overview of all the items that are booked via the map page. The screen won't fit more than five units on it, while De Wilgenweard has more possibilities than that. | Negative. De Wilgenweard has too many possibilities to make this feature useful. | Functionalities Nostium - map |
| Useful/effective | Each activity is linked to a single accommodation, meaning there is no option in choosing where an activity takes place. It is automatically assigned to the linked accommodation. In reality, however, many activities can occur at different locations. | Negative, the system cannot reflect reality, this affects the usefulness. Effectiveness is also negative, as there needs to be worked with an alternative solution. | Initial setup - accommodations |

| Useful/effective | It is noticeable that reservations take up significantly more space compared to the planning board of Stratech. Due to the large number of activities and the amount of space it occupies on the planning board, it seems hard to obtain a clear overview of all reservations and available slots on this page. Additionally, only accommodations with assigned units appear on the planning board. This makes it difficult to create a complete overview of all reservations for a given day. | Negative. The planning board uses more space than users are used to. It is, therefore, harder to get a good overview on the planning board. | Initial setup – planning board |
|---|---|---|---|
| Useful/efficient | When an option is added to a reservation, it is not immediately visible on the planning board. It is only visible when opening the specific reservation, not by simply hovering over te reservation. This results in a lack of a clear overview of the booked options, but such an overview is desired to have. | Usefulness is negative, because the overview the users need is missing. Efficiency is negative, because it costs more work to find the information. | Initial setup - options |
| Effective | It appears impossible to include multiple packages in a single reservation, but in reality, it occurs that multiple packages are booked for one reservation. Nostium restricts reservations to one package at a time. | Negative. The system cannot translate reality into its working. | Initial setup - packages |
| Efficient | The reservations page provides a sortable list of reservations. Users can organize reservations by activity date, reservation date, activity, status, guest name, or reservation number. This functionality makes it easy to find a specific reservation if the relevant details are known. Additionally, the reservation page allows users to filter and view unconfirmed reservations, making it convenient to identify guests who need to be contacted for confirmation. | Positive, as a lot of relevant information can be retrieved via this page. | Initial setup – reservation page |

# Appendix E - List of options

**Nostium**

**Opties**

Zijn er toevoegingen aan activiteiten of arrangementen in de vorm van upselling of gratis af te nemen opties? Dan horen we dat graag. Geef daarbij een eventuele prijs aan en bij welke activiteit(en) of arrangement(en) deze optie gewenst is. Ook in het geval van opties geldt dat er een mogelijkheid is om dit verder uit te breiden, zoals met een eventuele vraagstelling, in Nostium straks. We vragen ook hiervan om de basis.

| | Naam optie | Prijs calculeren op | Prijs | Prijs Volwassene | Prijs Kind | Gekoppelde activiteit 1 | Gekoppelde activiteit 2 | Gekoppelde activiteit 3 | Gekoppelde activiteit 4 | Gekoppelde arrangement 1 | Gekoppelde arrangement 2 | Gekoppelde arrangement 3 | Gekoppelde arrangement 4 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Koffie met petit four | Per persoon | € 5,25 | | | Ontvangst | Pauze | Eindpauze | | | | | |
| 2 | Koffie met kozak | Per persoon | € 5,40 | | | Ontvangst | Pauze | Eindpauze | | | | | |
| 3 | Koffie met cake | Per persoon | € 4,85 | | | Ontvangst | Pauze | Eindpauze | | | | | |
| 4 | Koffie met krentewegge | Per persoon | € 5,20 | | | Ontvangst | Pauze | Eindpauze | | | | | |
| 5 | Koffie met gebak | Per persoon | € 5,95 | | | Ontvangst | Pauze | Eindpauze | | | | | |
| 6 | Koffie met muffin | Per persoon | € 5,60 | | | Ontvangst | Pauze | Eindpauze | | | | | |
| 7 | Ontbijtbuffet | Per persoon | € 15,75 | | | Ontbijt | | | | | | | |
| 8 | Ontbijt schoolversie | Per persoon | € 11,75 | | | Ontbijt | | | | | | | |
| 9 | Ontbijt bivak | Per persoon | € 13,90 | | | Ontbijt | | | | | | | |
| 10 | Lunchbuffet | Per persoon | € 16,95 | | | Lunch | | | | | | | |
| 11 | Lunch schoolversie | Per persoon | € 11,75 | | | Lunch | | | | | | | |
| 12 | Lunchpakket A | Per persoon | € 9,95 | | | Kano verhuur | Navigatie Chal | Kompasmysterie | | | | | |
| 13 | Lunch bivak | Per persoon | € 13,90 | | | Lunch | | | | | | | |
| 14 | Driegangendiner | Per persoon | € 35,95 | | | Diner | | | | | | | |
| 15 | Driegangendiner deluxe | Per persoon | € 38,95 | | | Diner | | | | | | | |
| 16 | Diner schoolversie | Per persoon | | | | Diner | | | | | | | |
| 17 | Barbecue | Per persoon | | € 27,50 | € 16,50 | Diner | | | | | | | |
| 18 | Wilgenweardbuffet | Per persoon | € 27,50 | | | Diner | Themafeest | Feestavond | | | | | |
| 19 | Stamppotbuffet | Per persoon | € 21,95 | | | Diner | | | | | | | |
| 20 | Happerijbuffet | Per persoon | € 20,95 | | | Diner | | | | | | | |
| 21 | Sportmaaltijd | Per persoon | | | | Diner | | | | | | | |
| 22 | Kinderplate | Per persoon | € 7,25 | | | Diner | | | | | | | |
| 23 | Pizzajolly | Per persoon | € 31,00 | | | Diner | Pizzajolly | | | | | | |
| 24 | Diner Bivak | Per persoon | | | | Diner | | | | | | | |
| 25 | Ik hou van Holland | Per persoon | € 22,50 | | | Themafeest | | | | | | | |
| 26 | De Jongens tegen de Meisjes | Per persoon | € 22,50 | | | Themafeest | | | | | | | |
| 27 | Do you remember | Per persoon | € 22,50 | | | Themafeest | | | | | | | |
| 28 | Casinoavond | Per persoon | € 22,50 | | | Themafeest | | | | | | | |
| 29 | Patat bij diner | Per persoon | € 2,25 | | | Diner | Pizzajolly | | | | | | |
| 30 | Bittergarnituur | Per persoon | € 0,75 | | | Pauze | Borrelen | Eindpauze | | | | | |
| 31 | Picknickmand | Per persoon | € 14,95 | | | Sterrit | Kano verhuur | Kompasmysterie | Navigatie Chal | | | | |
| 32 | Borrelbox | Per persoon | € 8,65 | | | Sterrit | | | | | | | |
| 33 | Lunchpakket B | Per persoon | € 14,95 | | | Kompasmysterie | Navigatie Chal | Kanotrekken | | | | | |
| 34 | Toeristenbelasting | Per persoon | € 0,80 | | | Overnachting | Overnachting bivak | Camperovernachting | | | | | |
| 35 | Lakenpakket | Per persoon | € 6,00 | | | Overnachting | | | | | | | |
| 36 | Handoeken pakket | Per persoon | € 4,00 | | | Overnachting | | | | | | | |
| 37 | Opgemaakt bed | Per persoon | € 5,00 | | | Overnachting | | | | | | | |
| 38 | Eénpersoonstoeslag | Per persoon | € 7,50 | | | Overnachting | | | | | | | |
| 39 | Weekend toeslag | Per persoon | € 2,00 | | | Overnachting | | | | | | | |
| 40 | Groepskorting | Per persoon | € (2,00) | | | Overnachting | | | | | | | |
| 41 | Sterrit Markelo | Aantal keer | € 15,00 | | | Sterrit | | | | | | | |
| 42 | Sterrit Dalfsen | Aantal keer | € 15,00 | | | Sterrit | | | | | | | |
| 43 | Sterrit Salland | Aantal keer | € 15,00 | | | Sterrit | | | | | | | |
| 44 | Drankarrangement 2 uur | Per persoon | € 19,50 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 45 | Ontbijtbuffet deluxe | Per persoon | € 21,00 | | | Ontbijt | | | | | | | |
| 46 | Lunchbuffet deluxe | Per persoon | € 21,50 | | | Lunch | | | | | | | |
| 47 | Drankarrangement 3 uur | Per persoon | € 24,50 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 48 | Drankarrangement 4 uur | Per persoon | € 27,50 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 49 | Drankarrangement 5 uur | Per persoon | € 31,50 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 50 | Drankarrangement 6 uur | Per persoon | € 35,50 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 51 | Drankarrangement plus 2 uur | Per persoon | € 22,50 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 52 | Drankarrangement plus 3 uur | Per persoon | € 26,50 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 53 | Drankarrangement plus 4 uur | Per persoon | € 30,50 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 54 | Drankarrangement plus 5 uur | Per persoon | € 34,50 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 55 | Drankarrangement 18- 4 uur | Per persoon | € 24,50 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 56 | Drankarrangement hapjes | Per persoon | € 1,20 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 57 | Drankarrangement compleet | Per persoon | € 7,00 | | | Feestavond | Borrelen | Themafeest | | | | | |
| 58 | Consumptiemunt | Per persoon | € 3,30 | | | Feestavond | Borrelen | Themafeest | Pauze | | | | |
| 59 | Barbecue winter | Per persoon | € 33,50 | | | Diner | | | | | | | |
| 60 | Barbecue deluxe | Per persoon | € 33,95 | | | Diner | | | | | | | |
| 61 | Barbecue XL | Per persoon | € 33,95 | | | Diner | | | | | | | |
| 62 | Barbecue vegetarisch | Per persoon | € 25,90 | | | Diner | | | | | | | |
| 63 | Diner (hoofd) | Per persoon | € 21,95 | | | Diner | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 64 | Diner (voor) | Per persoon | € 7,75 | | | Diner | | | | | |
| 65 | Diner (na) | Per persoon | € 7,95 | | | Diner | | | | | |
| 66 | Pubquiz | Per persoon | € 17,50 | | | Feestavond | Borrelen | | | | |
| 67 | Swingo | Per persoon | € 17,50 | | | Feestavond | Borrelen | | | | |
| 68 | Hamburgerjolly | Per persoon | € 24,75 | | | Diner | | | | | |
| 69 | Dessertbuffet deluxe | Per persoon | € 12,95 | | | Diner | Feestavond | Themafeest | | | |
| 70 | Winterse lunchtafel | Per persoon | € 19,50 | | | Lunch | | | | | |
| 71 | Sportersontbijt | Per persoon | € 18,95 | | | Ontbijt | | | | | |
| 72 | Tweegangendiner | Per persoon | € 28,95 | | | Diner | | | | | |
| 73 | Djembee | Aantal keer | € 265,00 | | | Workshop | | | | | |
| 74 | Teamtrainer (coach) | Aantal keer | € 250,00 | | | Teambuildingstocht | Teambuildingspad | | | | |
| 75 | Mtb gids | Per persoon | € 13,50 | | | Mtb verhuur S | Mtb verhuur XS | Mtb verhuur M | Mtb verhuur L | | |
| 76 | Barbecue kok | Aantal keer | € 85,00 | | | Diner | | | | | |
| 77 | Wilgenweardbuffet deluxe | Per persoon | € 33,95 | | | Diner | Feestavond | Themafeest | | | |
| 78 | Stamppotbuffet deluxe | Per persoon | € 30,75 | | | Diner | Feestavond | Themafeest | | | |
| 79 | Winterbuffet | Per persoon | € 31,25 | | | Diner | Feestavond | Themafeest | | | |
| 80 | Biologisch pastabuffet | Per persoon | € 25,95 | | | Diner | Feestavond | Themafeest | | | |
| 81 | Hapjesbuffet | Per persoon | € 19,95 | | | Diner | Feestavond | Themafeest | | | |
| 82 | Hapjesbuffet Holland | Per persoon | € 16,95 | | | Diner | Feestavond | Themafeest | | | |
| 83 | Broodje hamburger met frites | Per persoon | € 12,50 | | | Diner | Lunch | | | | |
| 84 | Ijsbuffet | Per persoon | € | | | Diner | Feestavond | Themafeest | | | |
| 85 | High Tea | Per persoon | € 20,00 | | | Borrelen | Lunch | | | | |
| 86 | Europees buffet incl. soep | Per persoon | € 35,95 | | | Diner | | | | | |
| 87 | Europees buffet zonder soep | Per persoon | € 30,95 | | | Diner | | | | | |
| 88 | Driegangendiner Key of Life | Per persoon | € 37,50 | | | Key of Life | | | | Key of Life | |
| 89 | Cocktail Key of Life | Per persoon | € 7,50 | | | Key of Life | | | | Key of Life | |
| 90 | Mocktail Key of Life | Per persoon | € 7,50 | | | Key of Life | | | | Key of Life | |
| 91 | | | | | | | | | | | |
| 92 | | | | | | | | | | | |
| 93 | | | | | | | | | | | |
| 94 | | | | | | | | | | | |
| 95 | | | | | | | | | | | |
| 96 | | | | | | | | | | | |
| 97 | | | | | | | | | | | |
| 98 | | | | | | | | | | | |
| 99 | | | | | | | | | | | |
| 100 | | | | | | | | | | | |

| Accommodatie | Activiteiten | Prijzen | BTW & omzetgroepen | Tijden | Aantallen | Alle info & details | Tekst gastenportaal | Email | Koppeling website | Kleurcode | Opties gekoppeld | Betalingen | Kassa koppeling |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Activiteiten | Abseilen | | | | | X | | X | | | X | | |
| | Gravity fall | | | | | X | | X | | | X | | |
| | Handboogschieten | | | | | X | | X | | | X | | |
| | Klimwand | | | | | X | | X | | | X | | |
| | Slingertouw | | | | | X | | X | | | X | | |
| | Speleologie | | | | | X | | X | | | X | | |
| | Touwparcours | | | | | X | | X | | | X | | |
| | Swo | | | | | X | | X | | | X | | |
| Bos | Kompas mysterie | | | | | | | | | | | | |
| | Navigatie challenge | | | | | | | | | | | | |
| | ~~GPS tocht~~ | | | | | X | | X | | | X | | |
| | Teambuildingstocht | | | | | | | | | | | | |
| | Sterrit | | | | | | | | | | | | |
| Escape games | Beat the matrix | | | | | | | | | | | | |
| | Escape room Bunker | | | | | | | | | | | | |
| | Escape room Gentlemen | | | | | | | | | | | | |
| | Escape the forest | | | | | | | | | | | | |
| | The evidence | | | | | | | | | | | | |
| Expeditie robinson | Expeditie robinson | | X | X | X | X | X | X | X | X | X | | |
| | Goten + blokjes | X | X | X | X | X | X | X | X | X | X | | |
| | Hoepelworstelen | X | X | X | X | X | X | X | X | X | X | | |
| | Memorie exp rob | X | X | X | X | X | X | X | X | X | X | | |
| | Vuur maken | X | X | X | X | X | X | X | X | X | X | | |
| | Rups + blokjes | X | X | X | X | X | X | X | X | X | X | | |
| | Tangram + vis | X | X | X | X | X | X | X | X | X | X | | |
| | Finale expeditie robbinson | X | X | X | X | X | X | X | X | X | X | | |
| Extern | Fietsverhuur | | | | | X | | X | | | | | |
| | E-chopper | | | | | X | | X | | | | | |
| | Enterse Zomp | | | | | X | | X | | | | | |
| | Activiteiten extern | | | | | X | | X | | | | | |
| | Themafeest extern | | | | | X | | X | | | | | |
| Fort boyard | Fort boyard | | | | | X | | X | | X | X | | |
| | De fles | X | X | X | X | X | X | X | X | X | X | | |
| | Touwrace | X | X | X | X | X | X | X | X | X | X | | |
| | Fort boyard finale | X | X | X | X | X | X | X | X | X | X | | |
| | swo 2 fort boyard? | X | X | X | X | X | X | X | X | X | X | | |
| Groene Kayaks | Groene kayak | | | | | | | | | | | | |

| | |
|---|---|
| Hotel | Overnachting |
| | Overnachting bivak |
| Kano's | Kanotrekken |
| | Kano verhuur |
| | Kano by night |
| | Dauwpeddelen kano |
| Mountainbikes | Mountainbiken |
| | Nightbiken |
| | Mtb met gids |
| | E-mountainbiken |
| Saboteur | Saboteur |
| | Foto spel + vis |
| | Memorie sabo |
| | Veiling |
| | Vertrouwen |
| | Alles op een rij |
| | Eilanden |
| | De test |
| Sit-on-tops | Sit-on-top |
| Sups | Sup verhuur |
| | Sup by night |
| | Dauwpeddelen sup |
| Thuis | Rijkshotel de Nor |
| | De schaduwspits |
| Vlotbouwplek | Vlot bouwen |
| Zalen | CSI moordspel |
| | Alleskunner |
| | ballenkanon |
| | Bbq |
| | Eindpauze |
| | Feestavond |
| | Key of life zonder diner |
| | Key of life met diner |
| | Ontvangst |
| | Pauze |
| | Swingo |
| | Themafeest |
| | Vergaderen |
| | Workshop |
| | Pubquiz |
| | Borrelen |
| | Diner |
| | Lunch |

19

Ontbijt
Barbezoek overnachters
Pizzajolly
Sagenvertelling?
Sagenmysterie?
Workshop schilderen

Arrangementen

Fear
Bachelor
Schoolreisje avontuur
Schoolreisje beleef
Schoolreisje samenwerken & plezie
Bravo

| Check | Arrangement | Gekoppelde activiteiten | Al bestaand | Tijdsduur | Aantal personen | Prijzen | Kleur | BTW |
|---|---|---|---|---|---|---|---|---|
| | Saboteur | Saboteur | | | | | | |
| | | Fotospel + vis | | | | | | |
| | | memorie saboteur | | | | | | |
| | | veiling | | | | | | |
| | | vertrouwen | | | | | | |
| | | alles op een rij | | | | | | |
| | | eilanden | | | | | | |
| | | de test | | | | | | |
| | Fort boyard | Fort boyard | | | | | | |
| | | Touwparcours | Los | | | | | |
| | | klimwand | Los | | | | | |
| | | de fles | | | | | | |
| | | speleologie | Los | | | | | |
| | | touwrace | | | | | | |
| | | swo 2 fb | | | | | | |
| | | finale fb | | | | | | |
| | Fear? | Fear | | | | | | |
| | | Abseilen | los | | | | | |
| | | touwparcours | los | | | | | |
| | | slingertouw | los | | | | | |
| | | Speleologie | los | | | | | |
| | | ballenkanon | los | | | | | |
| | | eetproef | | | | | | |
| | Expeditie robins | Expeditie robinson | | | | | | |
| | | handboog schieten | Los | | | | | |
| | | goten - blokjes | | | | | | |

| | | | |
|---|---|---|---|
| | hoepelworstelen | | |
| | finale expeditie robinson | | |
| | memorie | | |
| | vuurmaken | | |
| | rups + blokjes | | |
| | tangram + vis | | |
| | kanotrekken | Los | |
| Bachelor | Bachelor | | |
| | Touwparcours | los | |
| | Speleologie | los | |
| | Ballenkanon | los | |
| | Gravityfall | los | |
| Schoolreisje avo | Schoolreisje avontuur | | |
| | kanovaren | los | |
| | speleologie | los | |
| | handboogschieten | los | |
| | slingertouw | los | |
| Schoolreisje bel | Schoolreisje beleef | | |
| | kanovaren | los | |
| | speleologie | los | |
| | slingertouw | los | |
| | vlotbouwen | los | |
| Schoolreisje san | Schoolreisje samenwerken en plezier | | |
| | speleologie | los | |
| | handboogschieten | los | |
| | kanovaren | los | |
| | slingertouw | los | |
| | swo | los | |
| Bravo | Bravo | | |
| | Beat the matrix | los | |
| | mtb met gids | los | |

kanovaren          los
gravity fall       los

# Daily tasks

Dit document dient als naslagwerk om je te helpen bij het gebruiken van Nostium. In deze handleiding worden verschillende algemene handelingen die je vaak zult uitvoeren besproken. Denk aan het maken van een reservering of het inchecken van een gast. De belangrijkste functionaliteiten van Nostium worden hierin toegelicht.

Leeswijzer:

- Gele markeringen zijn invulvelden
- rode markeringen knoppen
- Groene markeringen de pagina of tabblad waar je in moet werken
- Wanneer in de omschrijving de stappen genummerd zijn zullen deze ook terug te vinden zijn in de afbeeldingen om te laten zien waar de taak precies uitgevoerd wordt.

Note: Het bedrijf Nostium is nog in ontwikkeling, ze brengen zo nu en en dan updates uit wat invloed kan hebben op de inrichting van het platform. Wanneer er aanpassingen zijn kunnen er ook enkele functies veranderen. Het kan dus zijn dat de handleiding niet altijd up te odate is, hou dit dus in de gaten en pas het aan wanneer nodig!

## Inhoudsopgave

# Het invoeren van een reservering

Er zijn verschillende manieren om een reservering in te voeren. Dit kan via het dashboard, planbord, offertes en reserveringen tab. Als je op reservering aanmaken hebt geklikt, kun je de reservering gaan invoeren. Op de eerste pagina die je te zien krijgt kun je alle informatie over de gast invullen.



Vul hier in:

- Email adres, telefoonnummer en achternaam in. Evt. Kun je ook bedrijfsnaam invoeren. Heeft de gast bijzonderheden of andere opmerkingen kun je die ook in deze tab invoeren.

1. Ga dan naar de volgende pagina: activiteiten. Hier kun je de activiteiten invoeren.
2. Kies de desbetreffende activiteit/arrangement
3. Vul de datum en tijd waarop de reservering moet plaatsvinden in. Kies tijdsduur en aantal personen. Let met de tijd op dat deze niet altijd juist staat (vaak op 30 minuten).
4. Nostium wijst automatisch units toe, mocht je dit willen veranderen kan dat hier, bijvoorbeeld als je een andere zaal wilt kiezen waar de activiteit plaats moet vinden. Als de unit die je graag had willen kiezen niet meer in het rijtje staat dan is deze al volgeboekt en kun je die dus niet meer gebruiken.
5. Mocht je toch een andere activiteit willen, kun je dat hier aanpasse of verwijderen. Wil je een extra activiteit toevoegen, klik dan op 'activiteit toevoegen' (stap 2 opnieuw). Deze verschijnt onder de al geplaatste activiteit.
6. Kies nu eventueel opties bij de activiteit. Dit kan door losse opties toe te voegen, of via optiegroepen. Als er standaard opties bij de activiteit horen zullen deze bovenaan komen te staan of bij optiegroepen standaard al zichtbaar. Voor de optiegroepen scrollen we naar beneden op de reserveringspagina.

7. Bij sommige activiteiten zijn standaard optiegroepen al zichtbaar, maak hier dan keuzes uit. Bij activiteiten gerelateerd aan eten of drinken en de welkomst/pauze activiteiten is dit bv standaard. Wanneer je een optie wilt gebruiken bij de reservering. Controleer dan of de optie staat aangevinkt, door het hokje met kruisje aan te klikken zodat hier een vinkje in komt te staan. Is het niet aangevinkt, dan zal het aantal personen dat je hebt ingevuld bij opslaan verloren gaan.

Bij de derde reserveringspagina: artikelen, kun je losse artikelen toevoegen. Dit is niet iets wat standaard bij een reservering hoeft. Artikelen moet je zien als een los kopje koffie (dat dus niet bij opties al gekozen is). Dit zal vaak ter plekke door de gast nog gekozen worden en moet, als ze niet ter plekke betalen, achteraf nog verrekend worden. Dan kan het op de factuur toegevoegd worden.

Als alle informatie is ingevuld kun je de reservering aanmaken. De status van een reservering wanneer deze in de backoffice wordt aangemaakt staat automatisch op *aangemaakt*. Dit betekent dat de reservering nog niet bevestigd is door de gast. Let er op dat het systeem de maixmaal aantallen personen wel als fout aangeeft, maar je wel de reservering kunt maken. Controleer dus zelf of de aantallen wel kloppen en of het dan past.

# Meerdere activiteiten/arrangementen toevoegen aan reservering

Wil je een extra activiteit of een arrangement toevoegen aan de reservering, volg dan de stappen van 'het invoeren van een reservering' vanaf stap 1 opnieuw.

# Omzetten naar offerte/prijs bij een reservering aanpassen

Wil je prijzen aanpassen of offertes sturen dan moet je de reservering omzetten naar offerte (als je niet vanuit offertes al een reservering hebt aangemaakt).
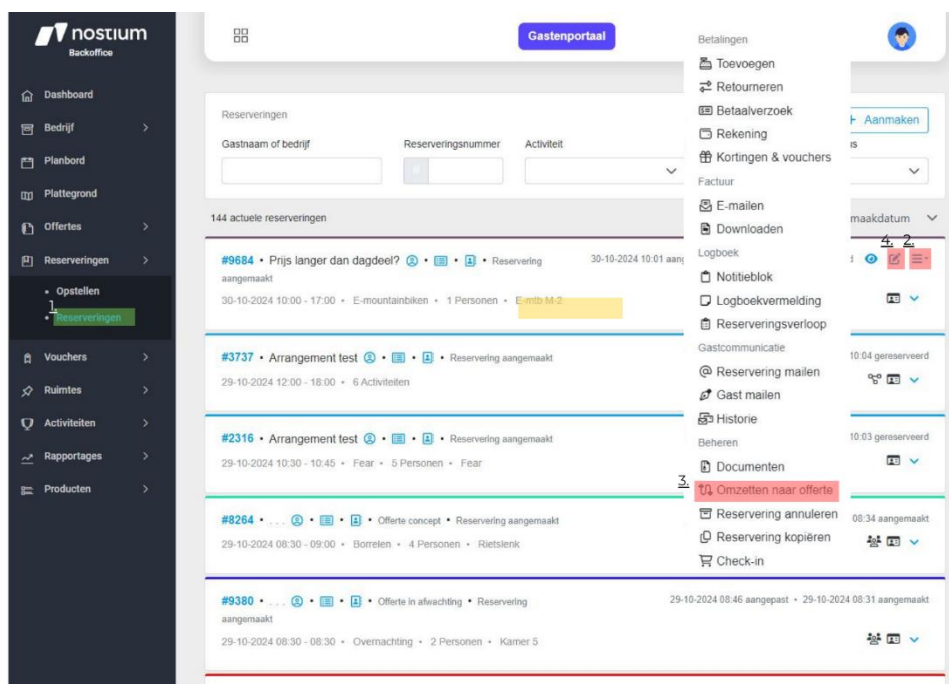


Dit kan bij (1.) reserveringen, (2.) open het drop down menu rechts van de desbetreffende reservering en klik op (3.) omzetten naar offerte. (4.) open dan de reservering.

Om een offerte te kunnen maken heb je wat meer gast gegevens nodig: vul adresgegevens in bij gastinformatie. Ga vervolgens naar de Prijsopbouw pagina.

Hier kun je per activiteit/arrangement of optie de prijs aanpassen. Door de prijs per stuk of de totale prijs aan te passen.

Bij de laatste pagina: Betalingen, kun je zien wat de totale prijs dan is geworden. Vergeet niet de wijzigingen op te slaan.

# Reservering bevestigen

Wanneer een reservering wordt aangemaakt krijgt deze automatisch de status 'aangemaakt'. Wil je de reservering bevestigen, ga dan naar de desbetreffende reservering en klik op de gastinformatiepagina en aan de rechterkant op status *bevestigd*.

Dit geldt ook voor offertes, de status na aanmaken is automatisch 'aangemaakt'. Ook hier kun je onder de gastinformatiepagina de reservering op *aangemaakt* zetten en de offertestatus op *concept, in afwachting* of *goedgekeurd*. Je kan ook aangeven hoe lang de offerte geldig is. Wanneer je de offerte vervolgens mailt naar de gast, komt er in de mail van de gast een knop tevoorschijn waarmee de reservering bevestigd kan worden. Via bijwerken en mailen krijgt de gast automatisch een mail van de reservering.

Je zult ook zien dat de activiteiten in het planbord een donkerdere tint krijgen wanneer ze zijn goedgekeurd.

# Gast inchecken/reservering doorsturen naar kassa/gast laten betalen op locatie

Wanneer een gast arriveert is het handig om deze in te checken. Op het dashboard staan de komende reserveringen aangegeven. Klik dan bij de desbetreffende reservering op 'check in'. Via het planbord kun je rechtsboven op 'check-in' klikken en de desbetreffende reservering zoeken. Of wanneer je de reservering al voor je hebt, kun je binnen de reservering op check-in klikken.

Bij inchecken wordt de reservering doorgeschoten naar de kassa. Dit is nodig als de gast wil betalen en het is ook handig om overzicht te houden welke gasten er al wel en niet binnen zijn.

Bij het inchecken wordt de reservering gekoppeld aan 'een tafel' in de kassa. Je vult het tafelnummer in en dan kan er ingecheck worden.

## Betalingskenmerk toevoegen

Je kan in de reservings instellingen van de desbetreffende reservering ook een betalingskenmerk toevoegen. Hiermee geef je aan hoe het betaald moet worden: dus op rekening of bijvoorbeeld bij de kassa. Door dit in te vullen weet Nostium dat er betaald is en kan de reservering als het ware afgesloten worden.

# Reserveringen zien in het planbord

Op het planbord kun je alle reserveringen van de dag zien in een agenda. Dit planbord is vergelijkbaar met Stratech, de werking zal hier in grote lijnen hetzelfde zijn. De linker kolom laat zien waar de reservering plaats vindt. Het blok zelf is de reservering waarin de gastnaam te zien is. Wil je meer informatie over de reservering dan kun je deze openen door erop te klikken.
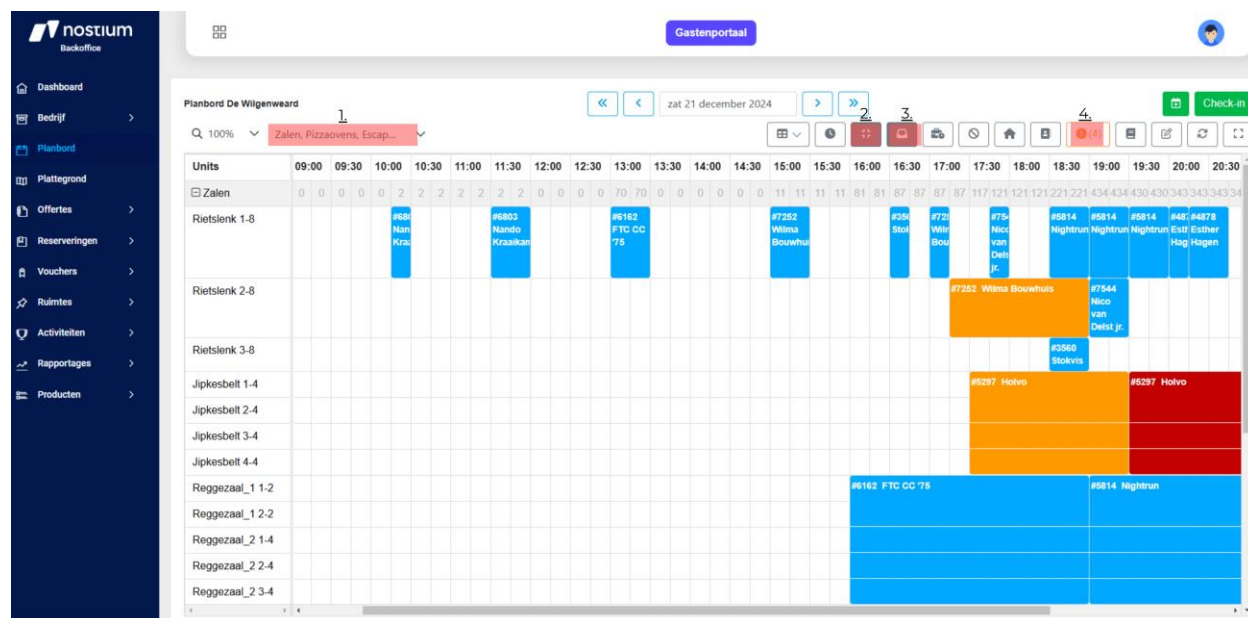


Wanneer niet alle accommodaties zichtbaar zijn in het planbord, kun je ze bij (1.) selecteren.

Met (2.) kun je ervoor kiezen om meer of minder informatie van de reserveringen zichtbaar te maken.

Met (3.) kun je ervoor kiezen om alleen de geboekte units van de dag te laten zien of juist alles.

Via (4.) zie je alle notities bij de reserveringen.

# Mededelingen plaatsen

Via het dashbord kun je mededelingen plaatsen op het berichten bord. Dit kan iedereen die toegang heeft tot Nostium inzien. Dit is handig om informatie met elkaar te kunnen delen.

Je kan ook algemene notities plaatsen op het planbord, net zoals in Stratech. Verder kun je notities inzien van de reserveringen, zoals besproken bij 'reserveringen inzien via planbord'.

# Handleiding Nostium

Dit document dient als naslagwerk om je te helpen bij het gebruiken van Nostium. Deze handleiding helpt je te begrijpen hoe Nostium is opgebouwd en hoe het is ingericht. Mocht je structurele wijzigingen willen maken, zoals updaten van prijzen of het aanmaken van een compleet nieuwe activiteit, dan kan dit document je daarbij helpen.

Leeswijzer:

- Gele markeringen zijn invulvelden
- rode markeringen knoppen
- Groene markeringen de pagina of tabblad waar je in moet werken
- Wanneer in de omschrijving de stappen genummerd zijn zullen deze ook terug te vinden zijn in de afbeeldingen om te laten zien waar de taak precies uitgevoerd wordt.

Note: Het bedrijf Nostium is nog in ontwikkeling, ze brengen zo nu en en dan updates uit wat invloed kan hebben op de inrichting van het platform. Wanneer er aanpassingen zijn kunnen er ook enkele functies veranderen. Het kan dus zijn dat de handleiding niet altijd up to date is, hou dit dus in de gaten en pas het aan wanneer nodig!

## Inhoudsopgave

# Back office Nostium

Wanneer je inlogt op Nostium kom je automatisch op het dashboard terecht. Vanuit daar kun je door Nostium navigeren. In dit hoofdstuk wordt besproken welke tabbladen en pagina's er in het menu aan de linkerzijde zijn en wat voor functies daar te vinden zijn.

Kun je nog niet inloggen? Dan moet er eerst een account voor je aangemaakt worden, vraag of Tom dit voor je wilt doen.

## Dashboard

Op het dashboard zijn verschillende widgets te vinden. Reserveringen van de huidige dag die nog niet ingecheck zijn, zijn hier zichtbaar.

- Inchecken van een reservering doe je om de reservering naar de kassa door te schieten. Je geeft hiermee ook aan dat de gasten aanwezig zijn.

Verder kun je de volgende dingen inzien:

- Het weerbericht van de dag zien
- Berichten achterlaten, dit kan handig zijn om je collega's te laten weten dat er iets speciaals is of ze ergens op moeten letten.
- Aankomende reserveringen, reserveringen van die week en aantal gasten zien

Al deze widgets kunnen van het dashboard afgehaald worden, hiervoor moet je Nostium mailen of ze dat voor je kunnen doen (support@nostium.com). De informatie is immers ook terug vinden in het menu links van het scherm.

## Pagina na inloggen

Wil je na het inloggen niet automatisch op het dashboard terecht komen maar op een andere pagina? Dat kan. Dit kun je instellen onder *bedrijf > locatie >onderdelen* en dan *pagina na inloggen* op je gewenste voorkeur zetten. Let op, dit is voor iedereen die inlogt hetzelfde.

## Bedrijf

Onder de tab *Bedrijf* zijn verschillende opties: locaties; gebruikers; omzetgroepen – sjablonen; taal; email. De *Bedrijf* tab wordt over het algemeen niet gebruikt, alleen om instellingen te veranderen.

## Locaties

Op deze pagina worden bedrijf instellingen ingesteld, van adres tot betaal gegevens. De volgende tabs zijn hier te vinden: algemeen; openingstijden; afwijkende openingstijden; gastenportaal; prijsstelling; betalen; onderdelen en gastinformatie.

De instellingen staan hier al juist aangegeven en hoeft in principe niks aan verandert te worden. Het enige waar je weleens mee te maken kunt krijgen is de openingstijden. De openingstijden zijn hier aan te passen. Wanneer bij een activiteit niet specifiek andere openingstijden zijn aangegeven zal het systeem de algemene openingstijden aangeven.

## Afwijkende openingstijden

Je kan ook afwijkende openingstijden instellen. Dit is handig als je op specifieke dagen bv niet open bent, met kerst bijvoorbeeld. Je voegt dan een nieuwe datum (of reeks) toe en kiest bij *gesloten 'ja'*. *Reeks* gebruik je wanneer je meerdere dagen aaneensluitend gesloten wilt zijn of andere openingstijden wilt hanteren.

## Gastenportaal - basisinstellingen

Hier kun je enkele basis instellingen zetten voor het gastenportaal, email waar vanuit gemaild wordt en afbeeldingen zichtbaar in het gastenportaal.

## BTW percentages

BTW percentages zijn hier in te vullen. Geef de verschillende percentages hier ook verschillende namen.

## Mollie/betaal methode koppelen

Onder de tab *betalen* kun je mollie connect koppelen om een betaalmethode toe te voegen aan de reservering in gastenportaal.

## Gebruiker toevoegen

Het is handig om voor elke gebruiker een eigen inlog te maken. Zo kun je later terugzien wie welke handelingen in het systeem heeft gedaan of welke wijzigingen er zijn doorgevoerd, dat kan handig zijn om bijvoorbeeld dit te kunnen controleren.

Ga naar *Bedrijf > gebruikers* en klik rechtsboven op *Aanmaken*.
Vul de benodigde gegevens in:

- Gebruiker op *actief* aanvinken
- Taal; naam & achternaam; gebruikersnaam; email; huidig wachtwoord. Let erop dat de gebruikersnaam uniek moet zijn.

- Voor huidig wachtwoord vul je het wachtwoord in waarmee op dat moment is ingelogd.

Ga naar de tab *rechten* geef aan welke rechten de gebruiker moet krijgen. [https://support.nostium.com/kennisbank/rechten-en-rollen/](https://support.nostium.com/kennisbank/rechten-en-rollen/) In dit artikel van de Nostium kennisbank is te lezen wat de verschillende rechten inhouden.

Klik op *aanmaken*. Je account is nu aangemaakt. Je ontvangt op het opgegeven emailadres een email waarmee je zelf een nieuw wachtwoord kunt instellen.

Je kunt als het goed is nu inloggen met je gebruikersnaam en je nieuw ingestelde wachtwoord.

## Taalsjablonen > activiteit online boekbaar maken

Teksten die zichtbaar zijn in het gastenportaal kun je aanpassen via taalsjablonen. Dit is handig om specifieke informatie te delen bij specifieke activiteiten. Dit doe je door naar Bedrijf > sjablonen > taal en dan de desbetreffende taalsjabloon aan te passen of te creëren.

Activiteiten koppelen aan het gastenportaal kan via het gastenportaal zelf. Wanneer je in het gastenportaal (ingelogd) bent ga je naar je account > aanpassen, en dan kun je activiteiten toevoegen. Dit doe je door eerst categorieën te maken en hier sub categorieën in te stellen waarin je vervolgens de activiteiten kunt koppelen.

## Planbord

De pagina van het planbord kun je beschouwen als je agenda van de dag. Op deze pagina kun je zien welke reserveringen er op de geselecteerde dag zijn ingepland en in welk tijdslot.

Je kan selecteren van welke accommodaties je de reserveringen wilt zien in de agenda. Via het planbord is het ook mogelijk om nieuwe reserveringen te maken of reserveringen in te checken via 'check in'. De belangrijktse functionaliteiten van het planbord zijn in de dagelijkste taken handleiding uitgelegd.

## Plattegrond

De plattegrond pagina geeft alle accommodaties weer. De accommodaties die gearchiveerd zijn, zijn hier nog wel zichtbaar, in de toekomst zal er een update komen vanuit Nostium waarbij de gearchiveerde accommodaties niet meer zichtbaar zijn.

Van de geselecteerde accommodatie is zichtbaar welke units er op dat moment in gebruik zijn. Wanneer je de gereserveerde unit aanklikt ga je naar de reserverings details. De plattegrond pagina lijkt verder geen toegevoegde waarde te hebben, dus hier zul je ook niet veel hoeven te zijn.

## Offertes

Via offertes kun je offertes opstellen, offertes inzien, debiteuren inzien, en verschillende offerte sjablonen maken.

In het dagelijkse taken handleiding is uitgelegd hoe je een reservering omzet naar offerte.

De offerte pagina laat alle gemaakte offertes zien. Je kan specifieke offertes zoeken op naam, aanmaak/verval datum, activiteit datum en reserveringsnummer. Ook kun je kiezen wat voor offertes er zichtbaar zijn (alle, concept offertes, in afwachting op goedkeuring of afgekeurde offertes)

Wanneer je de desbtetreffende offerte hebt gevonden kun je deze bekijken of wijzigen. Manier van betalen kan toegevoegd worden of extra kortingen kunnen berekend worden. En de offerte kan gemaild worden.

### Debiteuren

Op de debiteuren pagina zijn all debiteuren te vinden. Hier zijn ook nieuwe debiteuren aan te maken.

### Offerte pagina's

Via offerte pagina's zijn pdfs toe te voegen aan offertes. Je kan per offerte pagina kiezen welke activiteiten/arrangementen en opties gekoppeld moeten worden aan specifieke pdfs.

## Reserveringen

Via de tab reserveringen kun je reserveringen opstellen en inzien.

Je kan reserveringen zoeken op reserveringsnummer, naam, geboekte activiteit, datum en status.

Reserveringen in het verleden zijn ook in te zien.

Bij het maken van een reservering, worden de betaalmethodes niet meegenomen, dit gebeurd alleen als het een offerte is of doorgeschoten wordt naar de kassa.

## Vouchers

Vouchers kun je zien als tegoedbonnen, ze kunnen ook ingezet worden voor speciale acties.

### Sjablonen

Via sjablonen kunnen vouchers aangemaakt worden. De waarde van de vouchers, verkoopdatum en geldigheidsdatum kunnen ingesteld worden. Vervolgens kan de vouchers gekoppeld worden aan de activiteiten, arrangementen en opties waarvoor de voucher geldig moet zijn.

### Actieve vouchers

Via de actieve vouchers pagina kun je zien aan wie de vouchers gekoppeld zijn, of ze zelf koppelen aan een gast.

## Ruimtes

In de ruimte pagina's kunnen de accommodaties en units aangepast worden. Accommodaties zijn de zogenaamde plekke waar de activiteiten plaats vinden en de units houden de beschikbaarheid bij. Voor sommige accommodaties is het een letterlijke vertaling van de werkelijkheid, voor anderen is het wat ingewikkelder om het voor het systeem werkend te maken.

### Accommodaties

Accommodaties zijn belangrijk om te gebruiken, omdat elke activiteit gekoppeld moet zijn aan een accommodatie. Er kunnen meerdere activiteiten aan dezelfde accommodatie gekoppeld worden.

Bij het aanmaken van een nieuwe accommodatie kun je kiezen om wel of geen units op te geven. Wanneer er geen units aan gekoppeld worden, is de accommodatie ook niet zichtbaar in het planbord. Daarnaast geef je ook de minimale en maximale aantal personen per unit aan.

Een unit geeft de beschikbaarheid van een activiteit aan want de units zijn de boekbare delen. Denk aan een bowlingcentrum waar de banen de units zijn, of een lasergaming hal met de lasergame

vesten de units, of een restaurant met tafels. In Nostium voor De Wilgenweard is het gebruik van units op verschillende manieren gedaan. Omdat een activiteit maar op één accommodatie ingedeeld kan worden en dit in werkelijkheid niet het geval is, worden de units iets anders gebruikt. Zo zijn alle zalen in de Wilgenweard als units onder één accommodatie geplaatst, zodat alle activiteiten wel verdeeld kunnen worden over alle zalen. Om verschillende groepen te kunnen hosten in een zaal is de zaal unit herhalend onder de accommodatie geplaatst voor verschillende groepen.

De volgende accommodaties zijn voor De Wilgenweard gemaakt:

- Activiteiten (hier staan over het algemeen activiteiten onder die niet meerdere malen tegelijk geboekt kunnen worden)
- Arrangementen (dit is de verzamel accommodatie voor de meeste arrangementen. De activiteit met naam van de arrangement zit hierin, waaran de prijs van het arrangement is gekoppeld)
- Bos (enkele buiten activiteiten)
- Escape games (alle escape games (die niet thuis en ook niet in één van de zalen van de wilgenweard plaatsvindt)
- Expeditie Robinson (alle activiteiten die bij expeditie robinson horen)
- Extern (externe activiteiten en extern huur materiaal)
- Fort Boyard (alle activiteiten die bij fort boyard horen)
- Groene kayaks
- Hotel
- Kano's
- Mountainbikes
- Saboteur (alle activiteiten die bij saboteur horen)
- Sit-on-tops
- Sups
- Thuis (online escape games)
- Vlotbouwplek
- Zalen (alle verschillende zalen en terassen van de Wilgenweard. Overal waar activiteiten kunnen plaatsvinden die ook afhankelijk zijn van de beschikbaarheid van de zaal)

## Nieuwe accommodatie toevoegen

Alle activiteiten zijn onderverdeeld onder de bestaande accommodaties. Mocht er een nieuwe activiteit bij zijn gekomen en deze valt nergens goed onder te plaatsen, zou je ervoor kunnen kiezen om een nieuwe accommodatie aan te maken.

Ga eerst goed na of die niet toch ergens al bij past, meer accommodaties zal namelijk voor minder overzicht zorgen.

Heb je ervoor gekozen om een nieuwe accommodatie te maken, ga dan naar ruimtes > accommodaties > accommodatie aanmaken. Denk dan na over de units die erbij zouden passen. Het is altijd handig om units toe te wijzen, anders is de accommodatie niet zichtbaar in het planbord. Je kan elke unit een minimaal en maximaal aantal personen geven.

Vergeet je accommodatie niet op 'actief' te zetten door het vinkje aan te vinken.

*Units aan accommodatie toevoegen/wijzigen*

Is de accommodatie aangemaakt, dan kun je de activiteit aanmaken. Bij het aanmaken van de activiteit kun je dan voor de desbetreffende accommodatie kiezen en de units toewijzen. Verder zal het aanmaken van de activiteit hetzelfde gaan zoals beschreven in de handleiding.

## Activiteiten

Onder de activiteiten tab kunnen activiteiten, arrangementen, opties, optiegroepen en kortingcodes aangemaakt en beheerd worden.

## Nieuwe activiteit aanmaken

Een nieuwe activiteit kan aangemaakt worden in de activiteiten pagina. Geef de activiteit een naam en deel hem in onder de juiste accommodatie. Controleer of de accommodatie al de juiste units voor deze activiteit heeft en voeg eventueel nieuwe toe. Hoe dit moet is hierboven beschreven. Past de nieuwe activiteit nergens onder? Maak dan een nieuwe accommodatie aan.

Bij het aanmaken hoeven niet persé alle velden ingevuld te worden (aantal personen, accommodatie omzetgroep en btw percentage zijn verplicht, de rest is een keuze).

Vul het minimaal en maximaal aantal personen in. Je kan tijdslotsplitsing toestaan, echter werkt dit (nu nog) alleen in het gasten portaal. Tijdslotsplitsing is handig wanneer je grotere groepen hebt die achter elkaar de activiteit willen doen, dan boekt ie als het ware automatisch 2x de activiteit achter elkaar in.

Daarna voer je de tijdsduur in. Tijdsduur soort is normaliter *tijd,* sessies wordt over het algemeen niet gebruikt en dagen is voor activiteiten die meerdere dagen duren, zoals een overnachting. Vul de standaard tijdsduur in. Heeft de activiteit verschillende tijdsduren? Vul dan bij t*ijdsduur instelbaar Ja* in. Geef de minimale tijdsduur en de maximale tijdsduur aan. Zitten er tussen de minimale en maximale nog meer tijdsduur opties? Vul dan bij *tijdsduur interval* het aantal minuten van het interval in.

> Voorbeeld: je hebt kanovaren, standaard 1 uur. Minimale tijdsduur is dan ook 1 uur. Maar je kan ook 1,5 en 2 uur kanovaren. Vul dan bij maximale tijdsduur 2 uur in en tijdsinterval is 30 minuten. Nu rekent het systeem tussen de 1 en 2 uur elke 30 minuten een nieuwe tijdsoptie (dus 1,5 uur in dit geval).

Heeft de activiteit bepaalde starttijden, bv om het half uur, of elk kwartier? Vul dan startinterval in minuten in.

Wanneer je de activiteit wilt koppelen aan het gastenportaal zodat het online boekbaar is, is het handig om in te stellen hoe ver van tevoren en hoeveel tijd tussen de boeking en activiteit moet zitten.

Je kunt ook aangeven hoe vaak de activiteit tegelijk plaats kan vinden. Dit is handig in te vullen als de units dit niet specificeren, zoals bij de activiteiten in de zalen (de units van de zalen geven alleen de beschikbaarheid van de zaal aan, maar een activiteit heeft natuurlijk ook limieten, denk aan materiaal). Vul *aantal gelijktijdig op één moment* dan in.

Er zijn ook activiteiten die wel vaker tegelijk plaats kunnen vinden, maar niet tegelijk kunnen starten. Denk aan het achter elkaar wegsturen van groepen bij bv navigatie challenge. Vul dan *aantal gelijktijdige start* in.

Meer details voor de units is handig als de activiteit online boekbaar moet zijn. Koppel, wanneer van toepassing, de exclusieve units aan de activiteit. Dan is alleen die unit(s) te gebruiken voor de reservering van deze activiteit. De andere unit opties hoeven niet standaard gespecificeerd te worden.

Alternatieve unit personen is handig als de gekozen unit voor deze specifieke activiteit andere aantal limieten heeft.

Pauze na afloop wordt niks mee gedaan.

Opties en optiegroepen kunnen hier gekoppeld worden (of bij de opties zelf). Als je hier opties specificeert dan komen deze standaard tevoorschijn bij de boeking van de activiteit. Dit is niet verplicht, elke optie is namelijk altijd wel te vinden bij elke activiteit.

### *Prijs instellen/aanpassen van een activiteit in de back office*

Om de prijs in te stellen van een activiteit heb je de tabs prijsinstellingen, afwijkende prijsinstellingen en evt. Staffels nodig. Vul je geen prijs in, dan hanteert het systeem 0 euro.

Kies in de prijsinstellingen tab de omzetgroep en btw percentage die past bij de activiteit. Staat de juiste er niet tussen, maak deze dan aan via bedrijf > omzetgroepen.

Wanneer de prijzen van een activiteit of arrangement standaard niet meer klopt of geupdate moet worden, kan dit aangepast worden in de back office. Op verschillende manieren worden de prijzen bepaald, dit is afhankelijk van de activiteit. Er zijn activiteiten die in verschillende periodes van het jaar andere prijzen hanteren, er zijn activiteiten waarbij de prijs in verhouding goedkoper wordt naarmate de duur van de activiteit langer wordt, of de prijs wordt in verhouding goedkoper met grotere groepen. Dit moet allemaal op een andere manier worden ingevuld in de back office, bij de desbetreffende activiteit/arrangement. Daarnaast kan het ook nog voorkomen dat er vaste prijzen gehanteerd worden, deze prijs is niet afhankelijk van de groepsgrootte.

De standaard prijs instelling is prijs pp. Daarnaast vul je periodieke prijzen in dit doe je bij de activiteitsinstelling > afwijkende prijsinstelling. Hier vul je de prijzen die afwijkend zijn van de standaard prijzen in per dag.

Is de prijs het gehele jaar hetzelfde? Dan kun je voor de maanden die je nu nog over hebt tot de nieuwe prijs in gaat dit als afwijkende prijs instellen en dan kun je de nieuwe prijs invullen als standaard prijs. En aangeven dat periode 1 de 'standaard' prijs is dus op deze data hoef je niet afwijkende prijs in te vullen.

Wanneer je de prijs aangepast wilt hebben aan het aantal personen (groepskorting) of de tijd dat iemand iets huurt verschil maakt, dan maak je gebruik van staffels. Dit is ook bij de activiteitsinstelling in te stellen. Je kiest de soort staffel (minuten/dagen/etc. Dan kun je kiezen op welke dag dit geldig is. Wil je dat een activiteit van 2 uur de standaard prijs heeft en de variant van 3 uur in verhouding goedkoper is? Dan vul je staffelsoort minuten in > dan is de minuten tijd van 3 uur (dus 180 minuten) waarbij er een prijsverandering moet zijn. En dan vul je dan het percentage in van de prijs hoeveel die moet zijn ten opzichte van de standaard prijs.

Prijzen aanpassen van arrangementen werkt hetzelfde als bij de activiteiten, alleen zit je nu aanpassingen te maken in de arrangement instellingen.

### Start limieten

Startlimieten worden eigenlijk niet gebruikt. Hier hoef je niet standaard iets mee te doen. Wil je hier wel iets mee, in de kennisbank van nostium is hier uitleg over te vinden:
https://support.nostium.com/kennisbank/start-limieten/

### Openingstijden

Openingstijden voor de activiteit zijn ook in te stellen. Wanneer je dit niet invult gebruikt het systeem de standaard openingstijden die zijn ingesteld onder bedrijf > locatie. Voor een avond of vroege ochtend activiteit is dit handig, of als je activiteiten hebt die wel binnen openingstijd begint, maar doorgaat to na sluitingstijd.

Je kan hier ook aangeven dat een activiteit op bepaalde dagen niet open is, bv al de activiteit elke woensdag niet beschikbaar is. Vul dan bij gesloten: ja in. Is de activiteit een dagdeel niet beschikbaar, bv elke woensdag middag, laat dan *gesloten* op nee staan en voer de tijden in. Voor een specifieke datum de activiteit dicht doen kun je invoeren onder de tab afwijkende openingstijden. Deze instellingen zijn alleen handig als het specifiek voor deze activiteit geldt, is het bedrijf in zijn geheel gesloten of heeft andere openingstijden vul dit dan in onder de bedrijfs tab > locaties > openingstijden.

### Extra opties

Hier hoef je in het algemeen ook niks mee. Hier kun je nog specifieke betaal of offerte instellingen invullen, maar deze informatie is onder bedrijf > locatie al standaard voor alle activiteiten ingesteld.

Vergeet na het invullen/veranderen van de gegevens van de activiteit deze niet aan te maken of op te slaan.

### Activiteit koppelen aan kassa

Bij de laatste tab binnen een activiteit kan de kassa koppeling gemaakt worden. Zorg er eerst voor dat de kassa de activitiet er al als artikel in heeft staan. De kassa maakt dan een uniek ID. Dit ID kun je vervolgens onder deze tab invullen.  Als je dit gedaan hebt is de kassa koppeling gemaakt.

## Arrangement aanmaken/wijzigen

Onder activiteiten > arrangementen krijg je alle arrangementen te zien. Een arrangement is een combinatie van activiteiten. Voor De Wilgenweard zijn dit allemaal standaard combinatie van activiteiten. Je kan vanuit hier een nieuwe aanmaken of wijzigen.

Geef het arrangement een naam en kleurcode. Vul het minimale en maximale aantal personen in. Vul eventueel een startinterval in als je wilt dat het arrangement om de xx minuten steeds kan beginnen. Sommige activiteiten hebben op zichzelf al een startinterval, wil je niet dat deze gehanteerd wordt binnen het arrangement vink dan 'startinterval overslaan voor opvolgende activiteiten toestaan' aan.

Scroll naar beneden, vink keuze arrangement aan wanneer je wilt dat de gast kan kiezen welke activiteiten de gast wil doen. Omdat De Wilgenweard standaard arrangementen heeft, is dit niet nodig.

Voeg een activiteit toe aan het arrangement. Selecteer de juiste activiteit. Vul tijdsduur in. Als je wilt dat twee activiteiten tegelijk beginnen of dat er juiste een pauze tussen zit vul dan vertraagde start in (in minuten). Zet de activiteit die begint op 0 minuten en de de activiteit die tegelijk moet beginnen ook op 0. Moet hier juist tijd tussen zitten, vul dan die tijd in.

Je kan kiezen of de activiteit moet matchen aan de startintervallen van de activiteiten, het arrangement of dat beide moet negeren.

Je kan ook opties en optiegroepen per activiteit koppelen. Je kan dit ook in het algemeen voor het arrangement doen.

Startlimieten wordt hier, net als bij de activiteiten, niks mee gedaan.

*Prijsinstellingen*

Prijsinstellen is over het algemeen als bij de activiteiten. Echter, kun je bij arrangementen ervoor kiezen om de prijzen die voor de activiteiten binnen het arrangement zijn aan te houden. Echter heb je in werkelijkheid vaak een korting op zo'n arrangement dus kan dit niet. Het makkelijkst is om één activiteit te kiezen waar je de prijs aan wilt koppelen. Je kan prijzen toekennen aan de activiteiten binnen het arrangement. Waar geen prijs aan toegekend wordt blijft op 0 euro dan staan. Elk arrangement heeft een activiteit met de naam van het arrangement, het is handig om daar de prijs aan te koppelen. Dit gaat vervolgens hetzelfde als beschreven bij de activiteiten.

## Opties en optiegroepen

Opties zijn extra's die bij een activiteit gekozen kunnen worden of ze verduidelijken de reservering. Denk aan de reservering van een bbq, waarbij je met opties kunt aangeven wat voor bbq het moet zijn. Of bij een overnachting waarbij de gast kan aangeven of die gebruik wil maken van een handdoeken pakket.

Alle opties zijn te zien bij de reservering van een activiteit of arrangement. Echter, is het een aardig lange lijst. Je kunt opties ook specifiek koppelen aan activiteiten zodat ze standaard zichtbaar zijn bij de reservering van de activiteit, dat is een stuk overzichtelijker. Je kan bij de opties of optiegroepen de activiteiten koppelen, maar dat kun je ook via de activiteiten tab doen.

*Optie maken*

Vink de opties aan die je wilt gebruiken. Standaard is alleen 'actief' aangevinkt.

Geef de optie een naam en evt. Omschrijving.

Een afbeelding is leuk om toe te voegen wanneer de gast een online reservering maakt (bv met eten is het leuk om te laten zien hoe het eten er uit ziet).

Koppel de optie evt. aan specifieke activiteiten, arrangementen of optiegroepen.

In de volgende tab kun je de prijs instellen. Je kan hier ook aangeven wat voor keuze het moet zijn. Aantal van de optie dus bv hoeveel bbqs (hoeveel mensen eten er mee) of de keuze tussen wel of niet de optie gebruiken. Je kan er ook voor kiezen om het aantal wat je wilt aangeven onderscheid maakt tussen volwassenen en kinderen.

Notificaties wordt over het algemeen niks mee gedaan. Je zou er voor kunnen kiezen om etens opties door te sturen naar inkoop/kok.

De laatste tab is voor de kassa koppeling. Zorg eerst dat de optie in de kassa staat. Koppel dan het unieke nummer (ID) uit de kassa aan de optie bij de tab kassa instellingen.

Druk op aanmaken/bijwerken

*Optiegroepen*

Optiegroepen worden gebruikt om alle opties te groeperen. Je hebt bij sommige activiteiten keuze uit een aantal en dat kun je met optiegroepen makkelijk bij elkaar zetten. Denk aan alle bbq opties bij elkaar te zetten, of alle opties waaruit gekozen moet worden voor de overnachters.

Je kan bij de optiegroep > keuzeverdeling kiezen of er een keuze gemaakt moet worden tussen één van de opties gekoppeld aan de groep, of dat voor elke optie een keuze gemaakt moet worden.

## Kortingscode

Een kortingscode kun je toepassen op een reservering. Je kan deze aanmaken en een code geven. Het percentage instellen en beschikbaar van en tot instellen.

Een kortingscode kan ingewisseld worden bij een reservering.

## Rapportages

Je kan op heel veel verschillende manieren rapportages maken van de reserveringen, gastinformatie, of financiële rapportages. Je kan dit uitdraaien op de geselecteerde manier voor bepaalde periode en specifieke activiteiten/accommodaties e.d. Dit wordt dan geëxporteerd naar een excel bestand. Planning

## Koppeling naar website.

De onderste optie in het menu is het linkoverzicht. Hierbij kun je een complete lijst genereren van alle links die van activiteiten/arrangementen en dergelijke komen. Vervolgens kun je deze koppelen aan de website.

# Kassa koppeling maken

Koppeling aangevraagd via bedrijf nostium en via kassasysteem bedrijf. Wanneer die koppeling er niet meer is contact met hun opnemen maar dit zou gewoon goed moeten zijn. Bij elke activiteit kun je een kassakoppeling maken (artikel uit de kassa koppelen aan de activiteit/arrangement/optie of losse artikel) [laten zien waar je dit invult (tab op activiteiten pagina). Het artikel ID komt uit de kassa > makkelijkst om een uitdraai uit kassa aan te vragen

Uitleggen dat de prijzen die in nostium zijn gehanteerd (dus ook afwijkende prijzen) worden doorgestuurd naar de kassa, dus nostium prijzen zijn leidend.

# Specifieke details bij bepaalde activiteiten

Specifieke activiteiten 'open' zetten, zoals dauwpeddelen kano en sups of nightbiken, activiteiten die maar op specifieke dagen in het jaar beschikbaar zijn. Je kan dit ook voor activiteiten die wekelijks op bepaalde dagen alleen maar mogelijk zijn instellen.

## Arrangementen

Als je arrangementen een activiteit van volgorde verandert, dan verandert de andere activiteit(en) die daar achteraan komen ook mee. DUs als je activiteit naar voren verplaats dan verplaats je die daar achter zit ook naar voren.

Bij arrangementen nieuw instellen. Een activiteit aanmaken die ge gehele duur van het arrangement heeft, zodat je kunt zien hoe lang die duurt. Deze laten beginnen met eerste activiteit dit doe je door vertraagde start van dit grote blokje en eerste activiteit beide op 0 te zetten.

Alle activiteiten moeten weer specifiek aan de units binnen accommodatie gekoppeld worden (dat kan in activiteiten > specifieke activiteit > exclusief gekoppeld aan units.

## Kennisbank Nostium/Kom je er niet uit?

Heb je je antwoord niet kunnen vinden of nog meer informatie nodig? Ga dan naar de kennisbank van Nostium: support.nostium.com. Hier kan je tal van artikelen vinden over de functionaliteiten van Nostium en het inrichten van het platform. Je kunt inloggen met: tom@wilgenweard.nl LR%DgHoryltSEL735qa)05yY

# Appendix I - Updates Nostium

| Problem | Solution/answer | Status |
|---|---|---|
| Tijdslotsplitsing is only possible via the guest portal | This will likely become possible in the future. However, the developers indicated that this is a hard thing to accomplish without losing the flexibility in the back-office. There is a way to deal with this right now: making as a employee the reservation via the guest portal. | Not resolved, however, temporary solution is given |
| Possibility to personalize dashboard | It is possible to personalize the dashboard. Changing the widgets on the dashboard has to be requested via the company Nostium. All possible widgets are present at the reservation program for De Wilgenweard. | Resolved |
| The possibility to link activities to multiple accommodations | This is not possible, however this request has been made via different companies using Nostium. The developers are working on this, it is however, a complex problem. A temporary solution would be to put multiple accommodations under the same one and distinguish them via units. | In January an update came for linking multiple accommodations to a group. However, this option was not investigated yet. |
| Changing order of activities in packages | It is possible to change the order of the activities within packages. The best way to do this is via the guest portal. This is however, not a solution for De Wilgenweard, as only the employees should make a decsision about order and not the guests. To solve this, employees have to pay extra attention during the reservation process about the order of activities. A nice way to play around with the order is in the planning board, as visual blocks can be moved around. | Alternative given. |
| Information in reports | 'Opmerkingen' are visible in the 'options' field. Guest or internal remarks are shown in the fields next to it. | Resolved, clarity is given. |
| Different prices, which one is counting? | Prices in the cash register always note the prices from Nostium. Alternative prices rule over the general prices. This means that the prices of different periods are leading. | Resolved, clarity is given. |

| | | |
|---|---|---|
| Bug prijs opbouw at overnachting. | These are indeed bugs. This is resolved by the developers. | Resolved |
| Changing prices of activities. | There has been an update that makes it easier to change prices per period of time. | Resolved |
| Visibility of what activity is being reserved in guest portal | There has been an update that makes it possible to show the name of the activity in the reservation process in the guest portal with a placeholder text. | Resolved |
| Email templates | To get to know how the email looks, test reservations should be made. It is not possible to view this in the back-office.<br>It is noted as an improvement for the system, but it has given no priority. | Not resolved. |
| Options on/off in reservation | An update made resolved this issue. When a number is filled in at a specific options, the option is automatically turned on. | Resolved. |
| Startinterval<br><br>Gebruik stratinterval en max groepsgrootte (tijdslotsplitsing - subgroepen | This is not possible for now, however the functionality works via the guest portal. Making reservations via the guest portal should solve the problem for now.<br><br>De wens over de subgroepen is me wel deels duidelijk, maar hoe zien jullie dit precies voor je?<br>Met wat extra context kan ik het beter registreren bij ons intern. | Not resolved. |
| Sub groups | This is not possible yet, but a request is send to the developers. | |
| Prijsopbouw | Where it was first only possible to change the prices for a specific reservation via offertes, it is now possible in a normal reservation as well. | This was not a problem, but is a nice extra |
| Information visible in planning board | Reservations blocks within the same accommodation are merged together. This gives a better overview. | Partly a solution, however it stays big with just little information |

# Plan of Approach Master Assignment

Master Industrial Design Engineering

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Wilgenweard
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Disclaimer: AI is used to refine some of the texts for improving readability.

## Context

### Context company

Wilgenweard, the catering and activities venue in Overijssel, specializes in group outings. Guests are treated to unforgettable experiences focused on hospitality, togetherness, and surprising entertainment. De Wilgenweard wants to continue to stimulate its guests with new experiences in the field of activities with suitable catering and wants to be a trendsetter in the North-East of the Netherlands.

### Context assignment

For my graduation assignment I will be developing a new reservation system for the company. With developing this system the focus lays on the internal booking system and it functionalities for the staff members.

Herman Pronk, the company's CEO, emphasizes the critical role of a robust reservation program:

> A good reservation program is the basis of our company. This provides a connection between marketing, sales, planning, execution and cash register.

> Stratech is currently our main reservation system, but it is more than 20 years old and is no longer supported. We also use Leisure King where guests can book online articles (for example an activity). Bookings from Leisure King are forwarded to the cash register every day. Those from Stratech must be entered manually in the cash register. (Pronk, 2024)

They finally found a new system, Nostium, from which they believe it might be able to fulfill all the needs and tasks of the company, regarding reservations. The idea is to gather all reservations in a single digital platform which creates a better overview of all activities happening, such as what activities are happening, how many people/groups are present and how many staff is working. Having this overview can support in making the planning for the company, but it also gives a quick overview of activities that are sold well and which ones could sell more.

The challenge of this assignment lies is the variety of aspects the company has to offer and to find a way to integrate everything and let it work smoothly together into one system. To develop this new system, it's crucial to identify the possibilities of the program Nostium together with the functionalities of the old system that worked well. With this and together with the users of the system requirements need to be set up. After that, the system can be developed and should be tested. The goal is to fully use the new system next January.

# The research

## Focus

Developing a reservation system that works for the company and users are willing to use. With users, staff of the company is meant.

## Main research question

How to develop a new reservation system that fulfills the needs of the company and suits the users that are used to an old system for many years?

## Answering the research question

To design a successful system it is important to design for user experience. The literature research will explore users' ability to adapt to new technologies and delve into user interface design. Articles about how users can adapt to new technologies in their workspace are interesting to look into. For example, information about the MAYA principle is interesting. Also, it is good to investigate what works well in the old system that can be used in the new system as well, because existing good work can be used and shouldn't get lost.

For addressing the main research question, a series of activities have been outlined. Firstly, information will be gathered by studying both the new and old systems and understanding user needs. Subsequently, this information will be used to define system requirements. Finally, the system will be developed and tested. Several sub-questions have been formulated to support the main research question:

- What are the possibilities of the new system?
- What are the strengths and weaknesses of the old system?
    - What are features that definitely are handy/need to stay
        - Is it possible to integrate these features in a better/different way that will suit the users
    - What is not working well in the old system?
    - What is missing in the old system?
    - What would the users like to see in the new system?
- What are the requirements for the new system?
    - What should it be able to do?
    - What do the users need/want?
- How are the requirements implemented in the new system?
- How can we make sure the users are willing to use the system?
    - How can the users adapt to the new system?
    - How can the users learn to use the new system?

# Description of activities

- Get to know company
    - Define research activities more specific
    - Make planning
- Get to know systems
    - Get to know new system (Nostium) (desk research)
    - Get to know old system (Stratech, Leisure King) (desk research, observations & user interviews)
- Gathering requirements for new system
    - Observations
    - Interviews

- Developing of system
    - Developing system
    - Together with users discussing development
- Testing and improving system
    - Testing with users (observations)
    - Propose/implement improvements
- Making instructions of system for staff

## Expected results/deliverables

A working reservation system that the users are satisfied with.

## Rough planning

April – November/December

April: Get to know company

- Define research activities more
- Make planning

April/May: Get to know systems

- Get to know new system (Nostium) (desk research)
- Get to know old system (Stratech, Leisure King) (desk research, interviews & observations)

May/June: Gathering requirements

- Doing user interviews & observations (this runs also together with previous step)

July/August/September: Developing of system

- Developing
- Together with users discussing development

September/October/November: Testing and improving system

- Testing with users
- Propose/implement improvements

November: Making instructions of system for staff

December/January: finalizing thesis