Designing a visitor registration system for city halls

Bachelor final assignment by Anne-Joke Wijsmuller

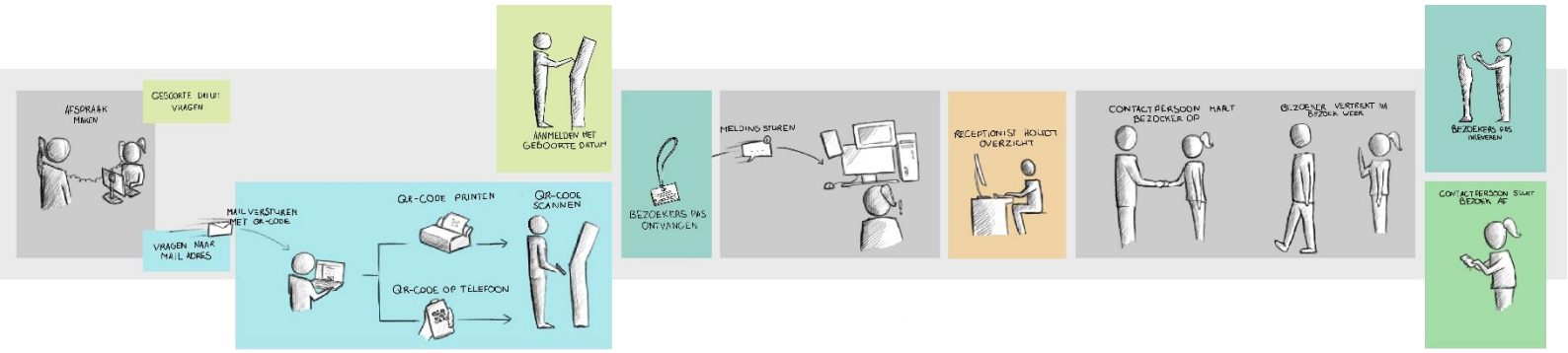
JCC Software is a software company that is concerned with providing a better visitor flow in city halls, among other things. Despite the fact that the company offers different software packages for municipalities, they lacked a system that could easily guide and register visitors that have an appointment. The municipalities contacted JCC Software about the possibilities of developing a system for these visitors that also provide an easy way of registering the visitors.

The aim of this design research was to design a visitor registration system based on the researched possibilities and opportunities within guiding visitors through a city hall. The aim is to design a system that facilitates the registration of visitors. This design takes into account the requirements and wishes of the customer and their visitors that is conform the process of signing in and out of the presence of the visitor in a city hall.

One of the main reasons the visitor registration is important is safety. When a visitor is visiting a business corporation the employees of that corporation are responsible for the safety of the visitor. When a company does not even know which visitors are inside their building it is hard to guarantee this safety and therefor it is important to register the visitors.

By figuring out what steps the visitor and the customer needed to go through for the visitor registration and by looking at the essence of each step, a design was made. This designed system was based on a variety of analyses. The first analysis that was made was a market research, investigating products that resemble visitor registration and investigating what technics were used. Most of those products did register visitors, but not visitors that had made an appointment prior to the registration, which the to be designed system should do. The used technics where analysed on their usability for the system. Interviews were also done, besides the market research, with future users of the system. These interviews were held with municipalities, the customers of JCC Software, and with current frequent visitors of city halls. The municipalities mentioned that it was important to them that their employees were notified of the arrival of their visitors. The visitors themselves stated that the current way of registering visitors, on paper or not present, did not communicate much professionalism.

All the information of the analyses where included in the design of the system. This is used for determining the most important aspects for a working visitor registration system. The following steps where concluded: 1) Making an appointment; 2) Signing in; 3) Sending a notification to employees; 4) the appointment itself; 5) signing out. Meanwhile there should be an overview available to keep an eye on the total amount of visitors singed in or not signed in such that in case of a calamity it is known which visitors are in the building in order to engage in a good evacuation.



All these aspects where included in the final design of the system. This design consists of different modules that facilitate these steps. By using the modules, the system can be adjusted to the wishes of the customer. In that way a visitor can sign in using an e-mailed QR-code, or by entering his birth date. This signing in can be done at the sign-in pillar where customers without an appointment can already sign in. During the sign in process the employee will be notified of the arrival of his or her visitor. This will be done by an application installed on the mobile device of the employee. The municipality can choose whenever they want to sign out their visitor using the same app, or whenever they want the visitor to sign out themselves at the sing in pillar.

In an evaluation it was decided not to give municipality the option to choose between different modules, but rather to use one option and use the other as a back-up simultaneously. So, when a municipality makes the visitors sign out themselves, but they happen to forget to sign out, the employee is still able to sign out the visitor through the mobile application.

It can be concluded that designing a visitor registration system has been executed successfully. The analyses that where made gave more in-depth information and the elaborated steps enhanced the usability for the users of the product. There are still more opportunities to improve the system like determining the exact location of the visitor within the building. These possibilities can be explored in further development of the system.