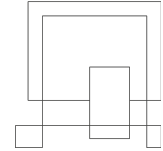# Hotel room booking system

Justina Ieva Bukinaite (315199), Christian Hougaard Pedersen (315269), Karolis Sadeckas (315225), Nina Anna Wrona(315202)
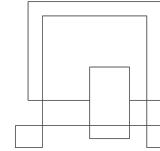
Software Technology Engineering

2Y

[02-03-2022]

Version: May, 2022

# Table of content

Appendices

1. Background Description

According to an Online Travel Booking Statistics (2020-2021) article (Over 70+ Online Travel Booking Statistics (2020-2021), 2022), the market for online booking reached 10% yearly growth between 2014 and 2019. As the market is growing, more people prefer to book online (Over 70+ Online Travel Booking Statistics (2020-2021), 2022).
Moreover today, hotel management systems are separated from the booking system or come in a package including both management and reservation systems. Although current systems are advanced, problems still tend to occur. For example if a customer reserves a room on booking.com the same day as the day of check in and the check in time has passed the owner does not receive a notification about the booking (Problems with Booking.com, 2022).
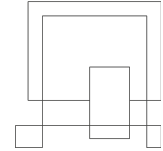
Beavers Hotel is a newly opened accommodation in a picturesque town in Denmark called Horsens. It was newly built in 2019 and opened for customers in January 2020. The hotel has 30 available rooms for booking and many features to be enjoyed like gym, spa and access to the pool. For those who are interested in having business meetings they offer a beautifully designed conference room. This makes a significant change in business travellers' approach towards hotels according to an article "Benefits of Hotels with Business Facilities"(Gupta, 2016).

The current management system used by the hotel is Business Microsoft package (Compare All Microsoft 365 Plans | Microsoft, 2022) and that creates difficulties when managing the data. Specifically the hotel uses excel to write the personal data of the customers and which room they are staying in. This leads to the hotel inefficiency in their time managing the bookings when everything has to be deleted, added or changed manually as the result of the overbooking may occur. Following that the same way is used to manage room data and financial details and that again requires investing additional time.

Furthermore, the customer booking process requires customers to reach out to the hotel for information about the hotel, which may lead to future guests choosing to favour a different hotel that has access to booking online. "Whether they book trips or appointments, people prefer to use the internet to do it rather than an offline booking system."(Staff, 2022). When booking a room, the customer can only learn about the hotel's services by calling or sending an email. The way for a customer to make changes, cancel or get details of a booking is to call the hotel manager. Therefore for
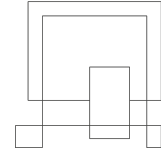
the reasons given above, the hotel may lose customers, which will be followed by loss of revenue and possible hotel closure.

2. Problem Statement

The hotel data is currently either stored in excel sheets or a notebook, therefore finding the specific information is time consuming for the hotel manager. Alongside that, the booking process for the customers is difficult, which leads to customers choosing to book somewhere else.

1. What information should be visible for future customers?
2. What client's information would be needed for staff to make a booking for them?
3. Through what steps should the client go through to book a service?
4. What information would be necessary for a customer to cancel a booking?
5. What sort of ways would the customer be able to contact the hotel?
6. What information will the customer receive after booking a stay?
7. What administrators will be able to do?
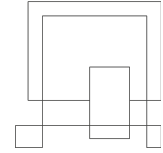
3. Definition of purpose

The purpose is to help the Beaver's Hotel in managing the booking of rooms and services offered, including increased efficiency of the workflow among the employees and the manager of the hotel. The goal is to bring more potential customers to the hotel and increase the hotel's profits.
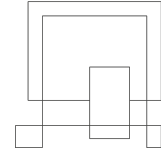
1. Delimitation

1. We will not include the functionality of handling online payment during the reservation of a room. The payment will have to be done physically at the hotel.
2. We will not include the website which allows us to advertise the hotel globally.
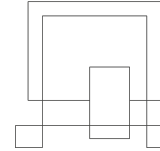
2. Methodology

The methodology we are going to follow is UP.

The first action we have undertaken to implement the SCRUM framework was dividing the roles in our group.
Our roles are Scrum Master - Justina, Product Owner - Nina, developers - Christian and Karolis.

Time management is going to be achieved by working in 3-day long Sprints, within a total of 7 Sprints.

The Scrum meetings are held, where Scrum artifacts are created and shared with everyone. Sprint planning is based on the created Sprint backlog.The burndown chart will be created and updated after every Sprint review. During the Sprints the UP disciplines are followed and artifacts are created.
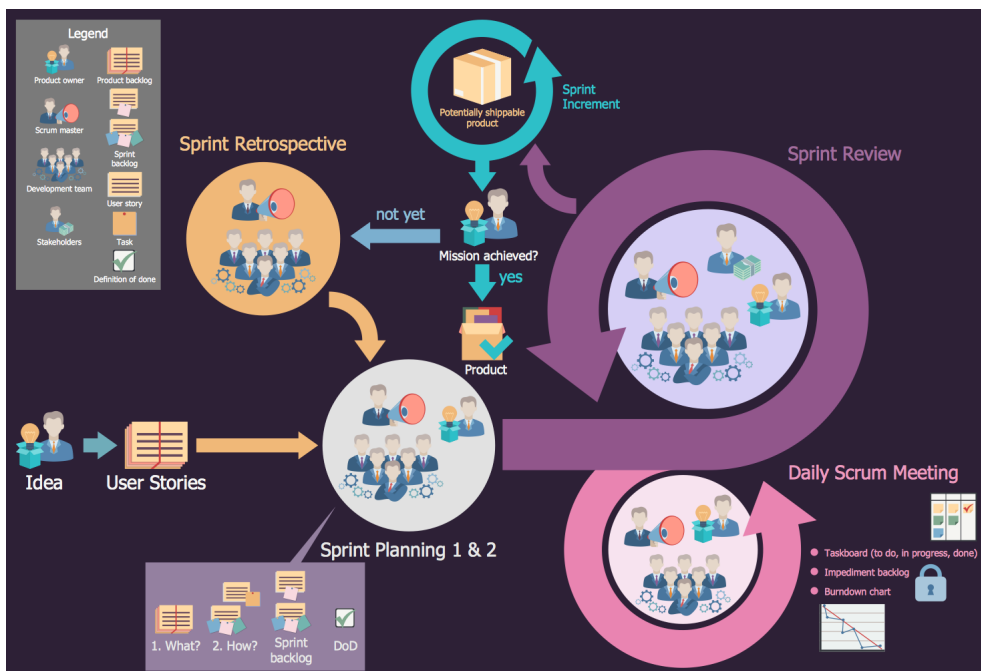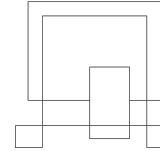
3. Time schedule

Including all parts of our project we expect that each member will spend at least 275 hours working on the project making a total of 1100 hours for all 4 members of our team.

Since we are going to follow UP our process will be split in iterations and having limited time we assume to spend most of our time in the elaboration stage.
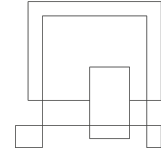
1. Inception iteration
   Time table:
   - 2022-02-12: Received detailed description about the customers problem with potential solution to the problem.
   - 2022-02-23 Analysis of project needs and creation of requirements.
   - 2022-02-25 Background description completed.
   - 2022-03-13: Hand-in deadline for project description.
   - 2022-03-24: Hand-in deadline for product backlog, Scrum Roles and plan.

2. Elaboration iterations
   - april 20
     april 27
     may 4
     may 5 Sprint 1
   - may 5-9 Sprint 2
   - may 9-12 Sprint 3
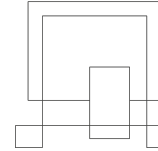   - may 12-17 Sprint 4

3. Construction iterations

- may 17-20 <u>Sprint 5</u>
- may 20-25 <u>Sprint 6</u>

4. Transition iterations:
    - may 25-30 <u>Sprint 7</u>
    - may 30 - june 2 <u>Sprint 8</u>
    - 2022-06-02 13:00: Hand-in of final product.

4. Risk assessment

Risks	Likelihood Scale: 1-5 5 = high risk	Severity Scale: 1-5 5 = high risk	Product of likelihood and severity	Risk mitigation e.g. Preventive- & Responsive actions	Identifiers	Responsible
Final system is not in a deliverable state in time for hand in.	5	5	25	Using Unified Process to develop the system iteratively. Making sure we keep to our time schedule.	System is not working when handed in.	Christian
Imprecise analysis done prior to implementation.	4	2	16	Early testing of use cases,	System not functioning as intended	Karolis
Inefficient implementation of the code	4	2	16	Code optimization and/or refactoring, taking time complexity in account.	System performance is slower than expected.	Justina
System design not made in a sufficient manner.	4	2	16	Put extra focus on the design of the system, ie. the creation/updating of class- and sequence diagrams.	System not working in a satisfying manner regarding user-friendliness.	Nina
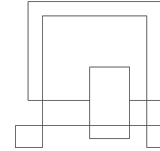
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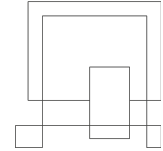n.d. *OVERVIEW OF THE SCRUM FRAMEWORK*. [ebook] ScrumAlliance. Available at: <https://www.scrumalliance.org/ScrumRedesignDEVSite/media/ScrumAllianceMedia/Files%20and%20PDFs/Agile%20Resources/S_OverviewofScrumFrame_1.pdf> [Accessed 2 March 2022].

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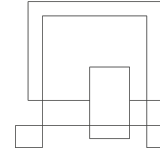
Appendices

GROUP CONTRACT

Project Name: SEP PROJECT 2

Due Date: 2nd of June, 13.00

Group 1:

| Name	Surname
Nina Anna	Wrona
Justina Ieva	Bukinaite
Karolis	Sadeckas
Christian	Hougaard Pedersen

Meeting's rules

- During the project period daily group work from Monday to Friday, between 6 to 8 hours.
- During the tuition time we will meet at least once a week, primarily on Wednesdays.
- Hours can be fluctuated, but we have to cover every aspect that appears on the agenda.
- Always notify the group when you are late or sick.
- If you are sick, you have to follow the curriculum at home.
- If one person has problems with the material from current classes, we all make effort to help. To be precise: schedule an additional meeting.
- We follow SCRUM.
- One person needs to write Meeting Minutes and agenda after every meeting.

Expected schedule

- Tuition period: 1 times a week (primarily) – Wednesday afternoon.
- Project period: 9.30-12.00 and 13.00-16.30 from Monday to Friday.
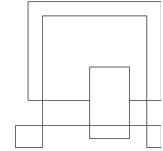
Supervisor meetings

- All members attend supervisor's meetings.

Additionally:

- Communicating mainly on messenger.

Consequences of not following/Conflict management:

1. Give a warning after every violation of the rule.
2. After the first warning reread the contract.
3. After the second warning: contact the supervisor.
4. After the third warning: kick out of the group.

All people signed down agree to all the rules written down in this document.

Nina Wrona

Karolis Sadeckas

Justina Ieva Bukinaite

Christian Hougaard Pedersen