Project Description

Wheels-Quick - Car Rental System

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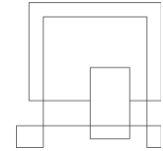
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1   Background Description

Wheels-Quick is a car rental company based in Aarhus that works on a business-to-consumer model. The company received popularity in the past 2 years for providing a cheaper and quicker way to rent cars in the area, by a successful marketing plan. Measuring by revenue, the car rental industry has 822.3M euro market size, which is in the top 10 in all of Europe(*Car Rental & Leasing in Denmark - Industry Statistics | IBISWorld*, no date).

 The company mainly deals with rental requests in person as well as phone calls. The available cars can be seen in person, an employee may provide them with a catalogue at the shop or they may view the booklets that have been advertised throughout the city. If the vehicle or vehicles that the client wants is/are available, the following steps include providing personal information about their identity, period of booking, etc. The client can choose the type of the car (Small, Hatchback, SUV, Electric). After the paperwork and transaction is complete the customer is given the key to the vehicle and notice of when and where the vehicle shall be returned.

There are still issues with the system that are costing the business time and money. The company values providing their service quickly but during high tourism seasons this proved to be too difficult to do in person. Managing both call-ins and in person requests has caused problems with the booking process as multiple clients request the same vehicle. In person this issue can be resolved but through calls it becomes complicated. Clients have expressed on a multitude of occasions for a digital service as it would be more convenient and reduce time spent at the service. The marketing team also suggests this, as it would help manage rental periods, reduce errors, and make the service overall process even easier.

The company has decided to digitize the services that are provided as this would help with the current influx of clients as well as future locations, if the company decides to branch out.

2   Problem Statement

Wheels-Quick is a company which offers cars for rent. The company wishes for a program that will make the renting process easier as well as provide a better client experience. That is why the group came up with the following questions:

- How can customers rent a car?

- How can customers choose a place where to leave a car?

- How many cars can a customer rent?

- How will the renting system be managed?

3   Definition of purpose

The goal of the project is to make a rental system where the client will be able to rent a car of several types and to insert the required information such as: renting period for this car and return the rented car in one of the parking places.
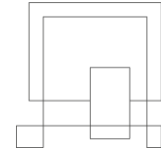
4   Delimitation

- **Finances and Transactions** - The system will not have a payment system since it is illegal to have your own paying system in Denmark.
- **Identity verification** - The information that customer will provide will not be checked to a high extent since the group has no access to the database with all information.
- **Legal procedures** - The system does not encompass the legal matters of how the car rental works as it is outside the scope of the group.

5   Methodology

For the process of the project, the group will be using Scrum together with UP. With the combination of both methodologies the goal is to structure the development process where parts of the program are chosen and worked on and at the same time keeping it light-weight and flexible to any changes. The Daily meetings alongside with sprint review, sprint retrospective and product backlog will be documented in the same document so the information about previous sprints and further developments can be easily looked over and managed. The team plans to assign roles to all group members that are involved around Scrum, the rotation of these roles is a subject of discussion and will be assessed as the development process continues. The length of a sprint is decided to be 3 days to gain as much insight between each sprint and build upon the experience of previous sprints.

6   Time Schedule

| Sprint 1	Sprint 2	Sprint 3	Sprint 4	Sprint 5	Sprint 6	Sprint 7
16/07,19/07, 20/07	21/07, 22/07, 23/07	26/07, 27/07, 28,07	29/07, 30/07, 02/08	03/08, 04/08, 05/08	06/08, 09/08, 10/08	11/08, 12/08, 13/08 **Deadline**

7   Risk Assessment

Risk	Description	Likelihood scale 1-5, 5 = high likelihood	Severity scale 1-5, 5 = high severity	Product of Likelihood and Severity	Identifiers	Preventive measures	Responsibility
1	Issues with renting functionality	3	4	12	Function has bugs or does not pass the test cases	After each requirement the program shall be thoroughly tested	Alexandru
2	Internal team issues	3	5	15	Conflicts, arguments or missing member	Civil discussions over problem, use Group contract	Raimonds
3	Connectivity issues with the database	4	4	16	Issues with the database sending or retrieving data	Peer review of the code, thoroughly testing the database side of code	Raimonds

4	Lack of knowledge about topic	2	3	6	Task is taking too much time to complete, members express difficulty	Communication around issue and collaboration on how to fix it	Alexandru
5	Health Issues	1	4	4	Health issues make it hard for member to participate in the group	Split the individuals tasks between the rest of the members	Alexandu
6	Adjusting to Scrum and UP workflow	2	3	6	Workflow does not go as the methodology intends it to	Go over the methodology as a group to have everyone's understanding on the same level	Raimond
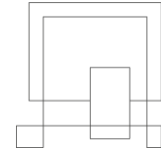
8   Sources of information

Car Rental & Leasing in Denmark - Industry Statistics | IBISWorld (no date). Available at: https://www.ibisworld.com/denmark/industry-statistics/car-rental-leasing/4080/ (Accessed: 15 July 2021).

9   Appendices

- Appendix11_Group Contract Group 1