

# **Process Report**

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Software Engineering 2<sup>nd</sup> semester

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## Appendices

# Group Contract

As a part of this group, I agree to fulfil the tasks I was assigned.

## Participation

All group meetings will be planned with a minimum of one day before group meetings. Only urgent and very serious conditions are considered as a valid excuse for absence at meetings. During Thursday classes we need to be present from 8:20 to 16:04 (with break).

## Communication

If we cannot complete the task we will contact the co-coordinator about our problems, if we did not do 50% we will call the Co-Coordinator to help us. Also, we can make group chats on various platforms such as Messenger, Skype etc. We will use shared maps in OneDrive and GitHub to have a backup for our project and work in progress not interrupt.

## Meetings

All members need to be at the time where we planned our activity. Meetings start with each member presenting the task they are currently working on and asking for feedback.

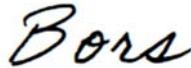
## Conduct

Criticism is only accepted by a constructive explanation and a proper solution. Criticism can only be about code that does not compile or does not follow the structure of the UML diagram. The visual appearance of the code does not matter if it is accepted by the teacher. If a group member helps you on your code, they have the right to fully modify the code if they know how to make it work.

## Rules of contract

1. A personal disagreement between members shall be settled at a general meeting by all members, mediated by the third member or an impartial third-party.
2. A member can be excluded permanently from the group after 3 warnings and a notice to the team members and lecturers with a 3 days' notice.
3. Each warning must be documented and discussed during the following group meeting.

I hear by confirm my acceptance and enforcement of the above stated

<u>Students Group 2</u>	<u>Student Signature</u>
Bors Dementie / 279948 Student 2 <sup>nd</sup> semester ICT Engineering VIA University College, Horsens	
Lucas Kaas Møller / 279967 Student 2 <sup>nd</sup> semester ICT Engineering VIA University College, Horsens	
Justinas Jancys / 280151 Student 2 <sup>nd</sup> semester ICT Engineering VIA University College, Horsens	

Nicoleta Sova / 267069 Student 2 <sup>nd</sup> semester ICT Engineering VIA University College, Horsens	
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# 1 Introduction

The process that we have been through during the project was not easy but still we manage to make it in time. It was with lot of meetings, discussions and researches. Unfortunately, 2 members quit the group and this thing made us little issues.

SEP2 was meant to help us with all the struggles that we could had during the project. Therefore, we had meetings every Thursdays during the second semester project. Our meetings were about 4 hours. If there were a need in much more time we could stay more

Every document that we wrote or work that was done were uploaded on OneDrive and on GitHub in order to be accessible by every member of the group so he/she could edit, add or delete at any time the information that needs to be changed.

Classes as SDJ, DBS, SWE was the ones which made us to successfully finish and work properly on our project.

Supervisors were our main help. They knew exactly what to advise us to do. We contacted them by email and directly after classes to arrange the meetings.

## 2 Group Description

We are group number 2. In our group we are 3 members: Dementir Bors , Justinas Jancys and Nicoleta Sova.

Dima is from Moldova and he is 24. He has finished faculty of Electronics and Telecommunication. In Moldova he had an internship at "Extralan" a company of Network administration. He knows 3 languages: English, Romanian and Russian. Dima chooses to study here because he has a background in this area. He wants to improve his knowledge and VIA will help him to achieve his goal.

Justinas is from Lithuania Kaunas-city, he is 20. He finished Catholic Gymnasium in his country. Justinas knows 3 languages: Lithuanian and English, German. Justinas finished several courses at a weekend young computer users' school. He was taught programming and robotics. Also, he knows, web design and web programming and C++. He took a part in extra lessons for programming and robotics to develop his skills. He knew that he will choose this area of Software because he already had a knowledge in this.

Nicoleta is 21 and she is from Romania. Nicoleta's hobby is writing. She has been studding at Medicine College in Romania for 3 years. She knows 3 languages: Russian Romanian and English. Nicoleta has been studding in VIA at Marketing for 2 semesters. In High school she liked Math and informatics, so she decided to take this area.

A good thing in our team is having different nationalities. Dementie is from Moldova, Justinas is from Lithuania and Nicoleta from Romania. Being from different countries leads us to be more interactive and communicable. We help each other and trying to be more open. We think this is very important because it makes us to understand people better and also this is helping our work to go more efficient and easier. We are different and we discover each other every day by showing parts of our lifes and talking about us and our families, hobbies, food, lifestyle experiences, and other interesting things that help us to know and understand each other better

In order to be responsible, we signed the group contract. In it we specified that we have to meet at least 3-4 time a week, to announce if we will be late at the meeting and to deliver the work on time. We

agreed on discussing the problems and in order to avoid misunderstandings in the group. One funny thing that we added was that we have to buy food if somebody is late.

### 3 Project Initiation

The most crucial phase in the project is Project Initiation Phase. We define the scope of and arrange the way our team will be.

The requirements for this project were given us by supervisors but the idea of the Rental Car Company was chosen by us based on those requirements. The group was formed based good relationship that we had during last project. For the beginning we were 5 but 2 members couldn't handle the pressure of work and left the study.

We all work on this project together. We kept the agreement that we had last semester which was very helpful during the project. Group agreed on dividing tasks and working in pairs by making the work easier and more efficient.

The main tool that we were using was Excel where we arranged our Sprints based on SCRUM. We planned to start by looking, thinking, discussing and debating what should be our choice for the project. Every member of the group brought 2 ideas and in the end after a meeting we agreed on Car Rental Company. A big help for a good start were guidelines and slideshows. With their help it' easier to know what to do. Also, we knew that if we would have a question or a problem the supervisor would help and give an advice in order to push us in the right direction and not let us drown in the problems and misunderstandings.

#### Project Description

Europcar (Europcar, 2019) is a car rental company that offers a large spectrum of cars and extra services. The main idea of the project was to create a system that will make our customer's life easier. An online version of the program so that every client could have the possibility to rent a car from the comfort of their home.

The goals that we want to achieve with this project are:

- I. Make an easy to use program.

II. To fulfill customers' need.

III. Deliver a working system.

The goals give a clear view of what should we deliver to our customer. A tool that will easy the life of the client.

A good overview of the company is visible in the background description that we wrote.

## 4 Project Execution

### Unified Process model

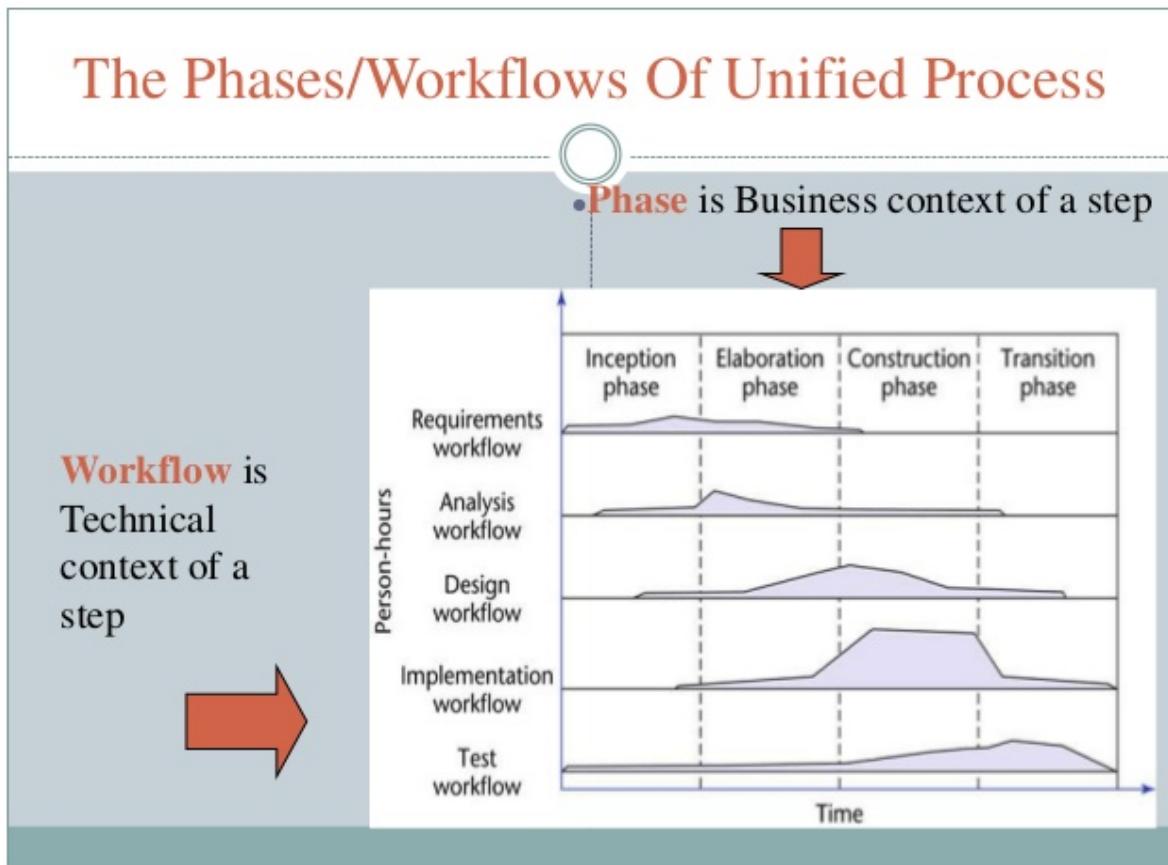


Figure 1 Unified Process model

### Inception

In the inception phase we have to look if this project is worth it . In this case we have to see if we have enough time to finish it, which we concluded that we have.

Another thing is there already exist something like our project. There are many projects like this but its not unpredictable for us, cause we want to make a better version.

The vision of the project is to create an Rental system. However, there are lot of system like this, our system will be focused on making the life of the client and the company easier. The description of this is more in depth in the project description.

## Use Case Model:

The use case model shows how users interact with the system. When requirements expand the use case model expands too.

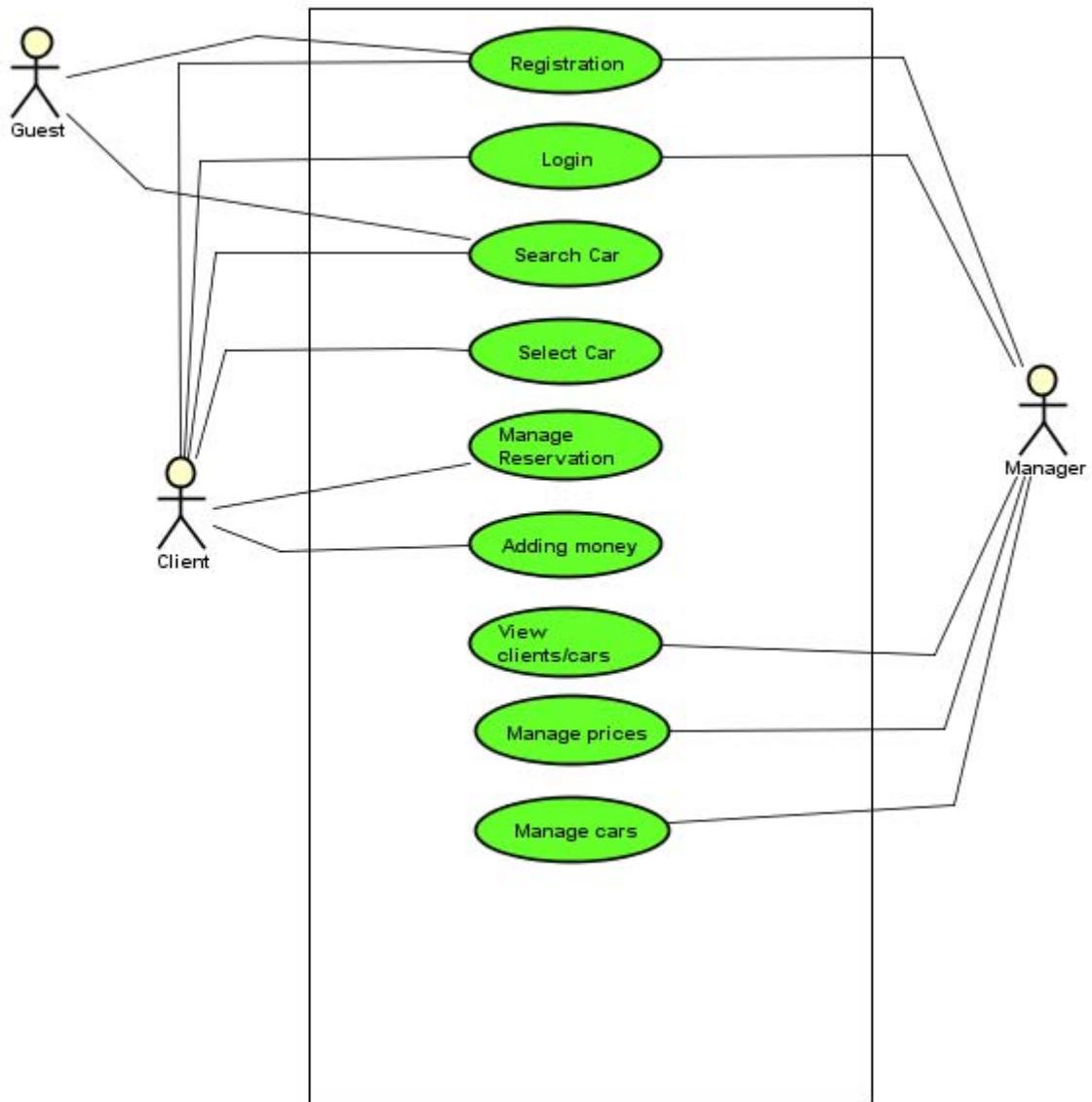


Figure 2 Use cases diagram

Risk list:

1 Personal life:

We are 3 in the group, so every of us has a personal life except university. Unexpected job calls can appear and as a result rescheduling meeting or interrupt the tasks. Also, we all are from different countries and we have different time when we want to go in holiday. As a result, the work process is slower than it should have. Also, bad weather can make some of group member sick so they can't work enough.

Personal events that happen in our life can be difficult to handle and fix. The best thing that we can do as members is to understand. Moreover, we must communicate our issues in order to be clear about everything that can affect the working process. The team must be sure that person from the group is doing right and show compassion

## 2 Time Schedule:

Time schedule is one of the most important things when it comes to work on a project. Unfortunately, sometimes time can be scheduled in the wrong way. This can make the project be done harder and show no progress.

Making a proper schedule is the best way of making and finishing the project in time. Documenting this thing is also important in order to visualize where the working process is.

## 3 Lack of verification:

Supervisor are the main way of verification if the work is done properly. Without a regular check from them at every step is more likely to do the work in the wrong way and fell more insecure. Lack of knowing what to do can cause frustration among the group and also unproductivity.

In order to solve the issue, team must arrange more meetings with supervisors or why not other groups.

## Elaboration

In this phase we improve the information that we gathered while the inception phase. In this phase the designe is made such as domain model. More about them can be found in Project report.

## Product Backlog

The collection of all user stories has been put in the Product Backlog. It consists in a list of items where each item has an ID, level (Critical, high, medium, low) and estimate time.

## Sprint Backlog

The Sprint Backlog consist of a list of tasks. The tasks have been taken from Product backlog and have been divided to each member. Each task has a product backlog ID, Priority level, Responsible Person, Estimate hours and actual working hours.

ID	Priority	Estimate	Item	Day 1	Day 2	Day 3
1	Critical	20 h	As a user, I want to be able to rent a car in order to drive.	3 h	12 h	9 h
2	High	15 h	As a user, I want to be able to select a certain type of vehicle in order to find a vehicle that suits my needs.	9 h	8 h	7 h
3	Medium	10 h	As a user, I want to be able to select additional services in order to ease my journey.	1 h	0 h	0 h
4	Low		As a user, I want the system to save my credentials in order to make it easier next time renting a vehicle.			
5	High	20 h	As a user, I want to be able to select the number of days I want to rent the vehicle in order to reserve the vehicle.	4 h	5 h	4 h
6	Mid low	10 h	As a user, I want to be able to see the pricing of different vehicles in order to select a vehicle inside my budget.	8 h	0 h	0 h
7	Medium	5 h	As a user, I want to be able to cancel my reservation in order to not rent a vehicle.	5 h	2 h	3 h
8	Low	15 h	As a user, I want to be notified if changes occur to my reservation, in order to be able to change my reservation	7 h	5 h	3 h
9	High	25 h	As a user, I want to receive a booking confirmation by email, in order to have proof of reservation.	3 h	0 h	0 h
10	Low	20 h	As an administrator, I want to be able to select the prices of different cars, in order to control prices.	7 h	4 h	2 h
11	High	15 h	As an administrator, I want to be able to access my customers credentials in order to be able to contact them.	3 h	2 h	3 h
12	High	10 h	As an administrator, I want to be able to see what vehicles are currently rented out, in order to see what is available.	8 h	6 h	6 h
13	Mid low	10 h	As an administrator, I want to be able to select extra services provided, in order to ease the journey of the customer.	0 h	8 h	7 h
14	Medium	10 h	As a user, I want to be able to add money to my wallet	8 h	3 h	1 h
<b>Total</b>			<b>185 h</b>	<b>66 h</b>	<b>55 h</b>	<b>43 h</b>
<b>163 h total</b>						

## Sprint 1

ID	Priority	Responsible	Estimate	Item	Day 1	Day 2	Day 3
1	Critical		20 h	As a user, I want to be able to rent a car in order to drive.	3.00 h	12.00 h	9.00 h
		Justinas		Use case diagram and description	1.00 h	1.00 h	0.00 h
		Justinas		Sequence Diagram	1.00 h	0.00 h	0.00 h
		Justinas		Activity Diagram	1.00 h	0.00 h	0.00 h
		Justinas		Create a domain model	0.00 h	2.00 h	0.00 h
		Justinas		Create a logical model	0.00 h	1.00 h	0.00 h
		Justinas		Create the user class	0.00 h	0.00 h	1.00 h
		Justinas		Create the car class	0.00 h	0.00 h	1.00 h
		Justinas		Create the database	0.00 h	4.00 h	0.00 h
		Justinas		Generate some data for testing	0.00 h	4.00 h	0.00 h
		Justinas		Program the server to give car list	0.00 h	0.00 h	3.00 h
		Justinas		Program the client renting	0.00 h	0.00 h	4.00 h
2	High		15 h	As a user, I want to be able to select a certain type of vehicle in order to find a vehicle that suits my needs.	9.00 h	8.00 h	6.50 h
		Nicoleta\Dima		Use Case Diagram	0.50 h	0.50 h	0.50 h
		Nicoleta		Use Case Description	1.00 h	1.00 h	1.00 h
		Nicoleta		Activity Diagram	0.50 h	0.50 h	0.50 h
		Dima		Class Diagram	1.00 h	1.00 h	0.50 h
		Dima		Create GUI	3.00 h	2.00 h	1.00 h
		Dima		Create connection between 4 windows in GUI(Login,Registration, Search Car Option as a Guest and Search Car Option)	3.00 h	3.00 h	2.00 h
				Testing	0.00 h	0.00 h	1.00 h
5	High	Simona	20 h	As a user, I want to be able to select the number of days I want to rent the vehicle in order to reserve the vehicle.	3.75 h	4.50 h	3.50 h
		Justinas		Use Case Diagram	0.50 h	0.50 h	0.50 h
		Nicoleta		Use Case Diagram	0.75 h	2.00 h	1.00 h
		Dima		Use Case Diagram	1.00 h	1.00 h	1.00 h
		Dima		Use Case Diagram	1.50 h	1.00 h	1.00 h
<b>Total</b>			<b>55 h</b>		<b>16 h</b>	<b>25 h</b>	<b>19 h</b>
					<b>59 h total</b>		

## Sprint 2

Product Backlog							
ID	Priority	Responsible	Estimate	Item	Day 1	Day 2	Day 3
3	Medium	Nicoleta	10 h	As a user, I want to be able to select additional services in order to easy my journey	1.40 h	0.75 h	0.75 h
				Uase case diagram	0.20 h	0.50 h	0.00 h
				Activity Diagram	0.20 h	0.00 h	0.50 h
				Create GUI	1.00 h	0.25 h	0.25 h
11	High	Dima	15 h	As an administrator, I want to be able to access my customers credentials in order to be able to contact them.	3.50 h	2.50 h	3.00 h
				Create Booked tab for customers who booked at least one time	2.00 h	2.00 h	2.00 h
				Get Data from database and create SQL statement	1.00 h	0.00 h	0.00 h
				Testing	0.00 h	0.00 h	1.00 h
				Documentation	0.50 h	0.50 h	0.00 h
6	High	Nicoleta	10 h	As a user, I want to be able to see the pricing of different vehicles in order to select a vehicle inside my budget.	2.50 h	3.00 h	1.50 h
				Activity Diagram	1.00 h	1.00 h	0.50 h
				Use Case diagram	0.25 h	0.00 h	0.00 h
				Use case description	0.25 h	0.00 h	0.00 h
				Class Diagram	1.00 h	2.00 h	1.00 h
9	High	Justinas	25 h	As a user, I want to receive a booking confirmation by email, in order to have proof of reservation.	4.25 h	2.00 h	1.00 h
				Update the use case diagram	1.00 h	1.00 h	0.00 h
				Update the sequence diagram	1.00 h	0.00 h	1.00 h
	low			Implement a notification that an email is sent	1.00 h	1.00 h	0.00 h
	low			Create SMTP or implement an existing one	0.25 h	0.00 h	0.00 h
				Create the send an email method	1.00 h	0.00 h	0.00 h
<b>Total</b>			<b>60 h</b>		<b>12 h</b>	<b>8 h</b>	<b>6 h</b>
<b>26 h total</b>							

## Sprint 3

Product Backlog							
ID	Priority	Responsible	Estimate	Item	Day 1	Day 2	Day 3
12	Medium	Dima/Justinas	10 h	<b>As an administrator, I want to be able to see what vehicles are currently rented out, in order to see what is available.</b>			
				Use case diagram	8.00 h	6.00 h	5.50 h
				Activity diagram	1.00 h	1.00 h	1.00 h
				Sql statements	2.00 h	1.00 h	0.50 h
				Available Cars Tab	2.00 h	2.00 h	1.00 h
				Booked Cars Tab	2.00 h	1.00 h	0.50 h
				Testing each case	0.00 h	0.00 h	1.50 h
				Documentation			
13	Mid low	Nicoleta	10 h	<b>As an administrator, I want to be able to select extra services provided, in order to ease the journey of the customer.</b>			
				Activity diagram	1.00 h	3.00 h	3.00 h
				Use case diagram	0.00 h	1.00 h	1.00 h
				GUI	1.00 h	1.00 h	1.00 h
<b>Total</b>			<b>20 h</b>		<b>9 h</b>	<b>9 h</b>	<b>9 h</b>
<b>27 h total</b>							

## Sprint 4

Product Backlog							
ID	Priority	Responsible	Estimate	Item	Day 1	Day 2	Day 3
8	Low	Justinas	15 h	As a user, I want to be notified if changes occur to my reservation, in order to be able to change my reservation	7.00 h	5.00 h	3.00 h
				Use case diagram	1.00 h	1.00 h	0.00 h
				Activity diagram	1.00 h	1.00 h	1.00 h
				Update the GUI	2.00 h	1.00 h	0.00 h
				Write the code	1.00 h	2.00 h	1.00 h
				Test	2.00 h	0.00 h	1.00 h
10	Low	Dima	20 h	As an administrator, I want to be able to select the prices of different cars, in order to control prices.	7.00 h	4.00 h	2.00 h
				Create Edit Cars Tab in GUI	1.00 h	0.00 h	0.00 h
				Implementing add a car button and functions for this button	2.00 h	1.00 h	0.00 h
				Implementing edit a car button and functions for this button	1.00 h	2.00 h	0.00 h
				SQL statements to get the useful data from the database	2.00 h	1.00 h	1.00 h
				Testing	1.00 h	0.00 h	1.00 h
14	Medium	Nicoleta	10 h	As a user, I want to be able to add money to my wallet	8.00 h	3.00 h	1.00 h
				Use case diagram	1.00 h	0.00 h	0.00 h
				Activity diagram	1.00 h	0.00 h	0.00 h
				Update the GUI	2.00 h	1.00 h	0.00 h
				Write the code	2.00 h	1.00 h	0.00 h
				Test	2.00 h	1.00 h	1.00 h
<b>Total</b>		<b>45 h</b>			<b>22 h</b>	<b>12 h</b>	<b>6 h</b>
<b>40 h total</b>							

## Burndown chart

The burndown chart has been used to see if the work is in progress.

This chart provides daily measure of the amount of work that remains in a sprint. It ensures that the process is on the right track.

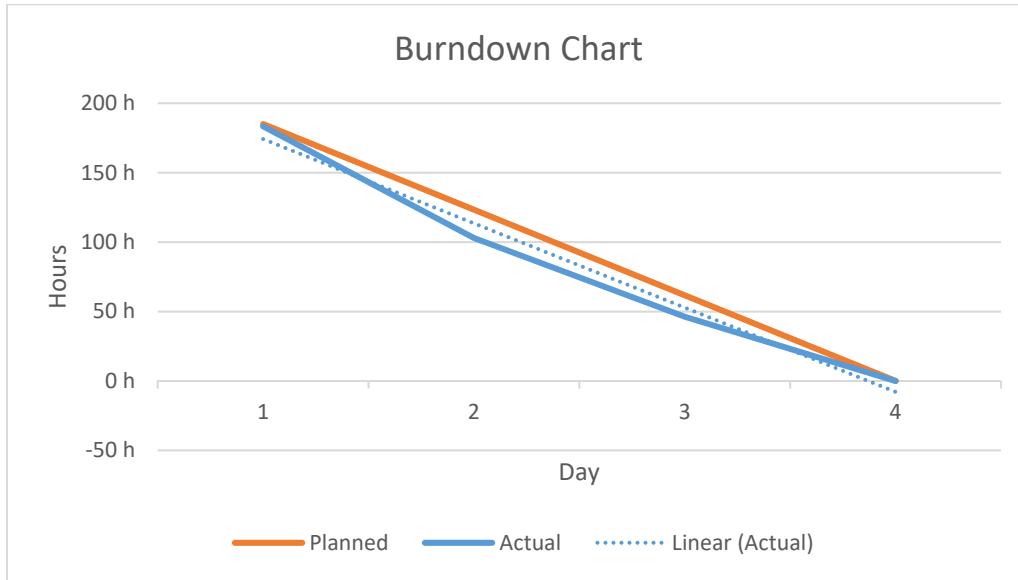


Figure 3 Burndown Chart

## Sprint 5

Product Backlog							
ID	Priority	Responsible	Estimate	Item	Day 1	Day 2	Day 3
7	Medium	Justinas	5 h	As a user, I want to be able to cancel my reservation in order to not rent a vehicle.	5.00 h	2.00 h	3.00 h
				Use case diagram	0.00 h	0.00 h	3.00 h
				Activity diagram	0.00 h	2.00 h	0.00 h
				Update the GUI	2.00 h	0.00 h	0.00 h
				Write the code	2.00 h	0.00 h	0.00 h
				Test	1.00 h	0.00 h	0.00 h
Project Report					9.50 h	7.00 h	10.75 h
				Intoduction	1.00 h	0.00 h	0.25 h
				Requirements	0.50 h	0.00 h	1.50 h
				Analysis	1.00 h	1.00 h	3.00 h
				Design	2.00 h	3.00 h	3.00 h
				Implementation	1.00 h	2.00 h	1.00 h
				Test	3.00 h	1.00 h	0.50 h
				Result and Discusion	0.50 h	0.00 h	0.00 h
				Conclusion	0.50 h	0.00 h	0.00 h
				Project Future	0.00 h	0.00 h	0.50 h
				Source of Information	0.00 h	0.00 h	0.50 h
				Appendices	0.00 h	0.00 h	0.50 h
Process Report					6.75 h	3.25 h	7.50 h
				Introduction	1.00 h	0.25 h	0.25 h
				Group Description	1.50 h	0.00 h	0.25 h
				Gorup Initiation	0.50 h	0.00 h	1.50 h
				Group Execution	2.00 h	1.00 h	2.00 h
				Personal Reflection	1.00 h	1.00 h	1.00 h
				Supervision	0.50 h	1.00 h	1.50 h
				Conclusion	0.25 h	0.00 h	1.00 h
<b>Total</b>			<b>5 h</b>		<b>21 h</b>	<b>12 h</b>	<b>21 h</b>
							<b>55 h total</b>

## Roles

### Product Owner:

The product owner has to be sure that the features are in the Product Backlog. He also prioritizes the items and plays a big role in the Sprint Review meetings and he communicates the requirements to the team members.

In our project Justinas is Product owner. This decision was made based on a group talk. As a product owner he has to take on some leadership role which he is really good at.

### Scrum Master:

The main role of the Scrum Master is to be sure that the Sprint goes well and as planned. Also, he must be sure that all team members have tools that they need in order to fulfill their tasks. Scrum Master schedules meetings and helps the Product Owner make the Product Backlog.

Initially, our Scrum Master was Lukas, but he left the group, and now Nicoleta took his place. She tried to adapt to her new role and started to take control of the daily scrum meetings and some of documentation.

### Scrum Team:

The Scrum Team takes the responsibility of making the product that meets customer needs. Because we are 3, all members of our group are the scrum team including Scrum Master and Product Owner.

## Dily Scrum Meetings

In each Daily Scrum Meeting the team were discussing about the work that was done since the las meeting. Then we planed what to do next, also we discussed some problems that accrued. We used those meetings in order to be aware of what is happening in the group and how is the work process going. Each group member explains what he worked on what he couldn't do, and other members can volunteer to help him. Scrum Master makes sure that everybody is doing good with their work and Scrum group decides on next spit of tasks.

## Sprint Review

In the Sprint Review the team shows the work to the product owner and also decides in what to do next. The Review is done at the end of every sprint. It helps to see what improvements have to be made in the next Sprint. The last word is taken by the Product owner so he either agrees with our work or not

## Sprint 1

The Sprint was mostly made as a design and analysis. It includes use cases diagrams, models and GUI. The Sprint went according to plan and we did everything that we plan to do except “Program the client renting” which is in progress. Some changings on diagrams such as: Activity diagram and Use case Diagram must have been done after SCURM Meeting. Because of. The work was made in time and we finished it as we wanted.

The goal for our Sprint 1 were:

- To make a system that allows a user to be able to rent a car.
- To make a system that allows a user to select the wanted type of vehicle.
- To make a system that allows a user to select the number of renting days.

We have been working on these tasks by making the use case diagram for each user story

## Sprint 2

The Sprint started a bit later than we expect to because of some group problems. This made us to make some changes in our planning tool, add more meetings and tasks. We worked more than we expect to in order to finish in time.

The main goals for this sprint were:

- a user, I want to be able to select additional services in order to easy my journey
- As an administrator, I want to be able to access my customers credentials in order to be able to contact them.
- As a user, I want to be able to see the pricing of different vehicles in order to select a vehicle inside my budget.

We had some problems with our working system because of the coding. And the Product owner said that everything works fine, and no changes must be made. The sprint ended on time even though we had problems.

## Sprint 3

The Sprint started on time and most of the work has been done by that time.

The main goals for that sprint were:

-As an administrator, I want to be able to see what vehicles are currently rented out, in order to see what is available.

-As an administrator, I want to be able to see what vehicles are currently rented out, in order to see what is available.

As an administrator, I want to be able to select extra services provided, in order to ease the journey of the customer.

We have made diagrams (Use case, Activity and class Diagrams) for the user stories. Then we have been working on coding and designing.

No extra issues appeared, and the goals have been achieved. The Product Owner is good with our work on Sprint 3.

## Sprint 4

The goal for this Sprint were:

- As a user, I want to be notified if changes occur to my reservation, in order to be able to change my reservation
- As an administrator, I want to be able to select the prices of different cars, in order to control prices.
- As a user, I want to be able to add money to my wallet

Mostly, every sprint gets better, and we didn't met any problems.

The Product Owner were fulfilled with the work and Scrum Master also agreed that working process going well.

## Sprint 5

During sprint 5 we have been working on Process and Project Report. We managed to make it in one day. We had most of documentation ready and also our system worked well. Some changes have been made and also, we found some problems, one of them we couldn't fix so we left it for the future.

## Meeting Log:

The Meeting Log documents all meetings that have been during the project. The meetings include both online and physical attendance, the time that have been sped and the summary of things that happened during the project.

February:

07/02/2019 10:15

-Project Proposal

09/02/2019

-Meeting for thinking about the Project Proposal

14/02/2019 8:20

-received approval for Rental car system

21/02/2019 8:20

-Starting to work on “Project Description”

23/02/2019

-Divvied the work for Project Description

March:

04/03/2019

-Upload project description

07/03/2019 8:20

-Project description feedback

-Made improvements on project after feedback

14/03/2019 8:20

-Introducing to SCRUM

18/03/2019

-Choosing the roles in the group

20/03/2019

-Working on Backlog

21/03/2019

-Upload Product Backlog

28/03/2019

-Sprint 1

-Upload the Sprint Backlog

April:

01/04/2019

-Working on documentation

04/04/2019

-SCRUM meeting

09/04/2019

-Meeting with supervisor and discuss the about problems

-Talking with the group about the ways of solving issues

10/04/2019

-Dividing the tasks (diagrams, design, SCRUM)

11/04/2019

-SCRUM meeting (resume if tasks or something have changed)

11/04/2019

-Working on Sprint 1(changing, adding and review)

14/04/2019

-Discussed the progress so far

-Discussed possible implementation

25/04/2019

-Sprint 1 ends (review meetings, documentation, diagrams)

-Sprint 2 starts (documentation, dividing responsibilities for each person)

27/04/2019

-Working on individual tasks

May:

02/05/2019

- meeting (discussing and solving the missing parts)

04/05/2019

-SCRUM meeting

11/05/2019

-SCRUM meeting with the group discussing the progress

22/05/2019

-Meeting with supervisor (discussing the main problems that occurred during this days)

25/05/2019

-Review meeting

-Approving the work that have been done

26/05/2019

-Meeting with group (showing the work that have been done)

-Starting the Sprint 3

30/05/2019

-Meeting with the group working on project

31/05/2019

-Finish Sprint 3

-Review the work

-Starting Sprint 4(dividing the tasks)

June:

03/06/2019

-Finishing up on Sprint 4

-Starting the Sprint 5

04/06/2019

-Meeting with supervisor and asking questions about the Process Report

05/05/2019

-Meeting and working in project

06/06/2019

-Working on project

## 5 Personal Reflections

**Dementie Bors:**

At the beginning of the project the work went pretty well. We divided the work in order to give to each member the possibility to assess their knowledge. That made me feel useful during the whole project. As it is second semester the communication between the group members is better. We know each other better and we easily can manage our little issues that appeared during the project.

For example, one of the main problems that we had was losing 2 of our group members. Because of that we had some schedule problems with the Sprints. We couldn't finish their tasks because they left us in the middle of the working process. We had to put the unfinished tasks in the new Product Backlog. Still we managed to make everything on time

I liked how the SCRUM works. I think that it is a really useful tool for working and managing a project. Unfortunately, I understood how it works just in the end but still this made our work more constructive.

Also, I liked how our team worked at the end of the project. We somehow gathered and started to meet mostly every day. Helping each other was one of the main things that we were doing at the end, because we felt confused and at the end.

### **Nicoleta Sova:**

The start of the project was really good for me. We knew exactly what to do, we had a plan and a schedule that was helping us to manage the work.

During Sprint 1 the working process was going well but, in the moment, when our first Scrum Master announced us about his intention to leave it turned upside down the situation. We had to find a new Scrum Master and split again the tasks. As the process got back on the track another announcement from another group member made us worry.

Again, another member have left and it was mostly at the end of the project. Still we have managed to do the work. I think that this type of problems made us a little bit more responsible and aware of the importance of communication between the members.

Working on this project was much easier because of the SCRUM. It really makes the work more efficient as the project is made paces by paces. The role of Scrum Master was a challenge for me. I started to be more responsible and understand how to focus more on the most important tasks.

### **Justinas Jancys**

From the beginning of the semester I felt strong with a 5 person group. I felt like nothing can stop us and we can do whatever project we want. But after Lucas quit the studies we felt a little lost. We didn't know what to do. And when Simona left we realized that we are in some big trouble. We pushed through and in my opinion we came out stronger as a team. Our teamwork skills increased. Last semester we had trouble miscommunicating, planning, etc. This semester I would say we bonded as a group.

### **Supervision**

The best help that we had was supervisors. They gave us advises when we were in trouble and stuck. These meetings are very helpful, they are making group to grow and not spend time on unnecessary things. Supervisors gave us a secure felling we always knew that we could ask for help and it will be given.

For example, the first meeting that we had was with Ole Ildsgaard Hougaard and it was really helpful because he showed us what is missing in the project and also what was the mistakes that we have made.

Next meetings we also had with Ole Ildsgaard Hougaard and one of the meeting was with a Human Resources person that was trying to help us to manage the problems that we had (2 group members have left the group). That meeting made us to talk more and to be sure on our plans in order not to damage the working process for the next sprints.

Last 3 meetings we had with Steffen Vissing Andersen. We had some quastions about the documentation and he mostly saved us by explaining agoin the way we should work and not to use the waterfall approach from the last semester.

## 6 Conclusions

During this project we understood that working in group is not easy. Still we have tried to work hard and deliver the wanted product. We almost fall apart as a group cause the 2 of our members left. Still we could fix the problem and manage the schedule in order to finish the tasks in time.

This thing made us to be more responsible, aware and ready for issues that can appear during the project.

The new approach taught made as to find the most important tasks and focus on them in order not to lose time in something that is not that important.

We learned how to be able to bring the work in time and not to live stuff for next day. That is important in real world, so we have tried to stick to the schedule even though we had some delays because of losing group members.

## Appendices

<https://study.com/academy/lesson/unified-process-model-definition-application.html>

<https://via.itslearning.com/ContentArea/ContentArea.aspx?LocationID=6582&LocationType=1>