

# Process Report

---

## ICT Engineering

Ovidiu Muresan 254119  
Stefan-Daniel Horvath 253724

Course: RE-IT-SEP2

Date: 19 August 2017

## Table of Contents

Group Policy:.....	3
SWOT:.....	4
Group SWOT:.....	4
Target Audience and Writing Style:.....	5
Choice of Topic:.....	5
Scrum Roles:.....	6
Product Backlog:.....	7
Sprint 1:.....	8
Sprint 2:.....	10
Sprint 3:.....	11
Burndown Chart:.....	13
Unified Process:.....	14
Daily SCRUM:.....	14
Daily SCRUM Meetings:.....	15
Bloom Profiles:.....	17
Individual Reflections:.....	19

### Group Policy:

All the group members have agreed and signed to:

1. Come to SDJ2 classes.
2. Make sure that, when we miss a class, we will catch up.
3. Work on assignments together.
4. Switch roles between each other.
5. Show up at meetings or at least let the other know you are not coming.
6. Complete assignments before group meetings.
7. Help others that are having trouble with their tasks.
8. Find a solution for any group's problem together before it is solved. If the problem is not solved together, the member that solved the problem shall explain how he/she arrived at the solution.
9. If any of the members has something to say or to improve she/he should say it during the meetings.

*Stefan-Daniel Horvath. (253724)*

*Ovidiu Muresan. (254119)*

## SWOT Analysis

### Individual SWOT (Strengths, Weaknesses, Opportunities and Threats)

#### **Ovidiu Muresan:**

**S:** Over checking everything just to be sure that we respect the schedule.

**W:** Sometimes I don't have patience.

**O:** Improve my programming skills and the team work skills

**T:** If I have to say something I say it straight away.

#### **Stefan-Daniel Horvath:**

**S:** Fast learner and ambitious.

**W:** Mediocre communication skills.

**O:** Improving communication, team work skills.

**T:** Not

### Group SWOT

**S:** Good communication, hard work, creative, resolving problems, time flexibility.

**W:** Lack of work experience with server/client and database programming.

**O:** Improving communication, teamwork and programming skills.

**T:** Lack of time.

## Target audience and writing style

The **user manual** should be written for the lay audience, because customer should be able to use the cinema booking system by following the manual.

The **process report** should be written for a semi-expert audience, because it may happen that some of the people reading it, are likely knowledgeable at coding, rather than on the process of the project and the tools we used for documenting our process (SWOT, SCRUM etc.).

The **project report** should be written for a semi-expert audience, which means that it will be written with programming terminology, for this reason academic writing must be used and explanations of terms are not required.

Since the report must be written in a formal style, slang terms and contradictions should be avoided. On the other hand, the use of passive voice will contribute formality and technicality to the report. Moreover, regarding the language used, it should be objective and complex.

## Choice of the topic

After having created the group, we started to have ideas for the project. The first idea was a chat system and the second idea was a simple cinema booking system which would have a small database and it would be used by the costumers.

After we thought about it, we finally decide to do the “Via cinema” because we thought it was going to be less complicated and it had everything we needed to implement.

## Scrum Roles

**Product Owner:** the success of the project is on his/her shoulders. He/she leads the development effort and is responsible for conveying his/her vision of the system to the team. It is also his/her responsibility to assess which pieces of the product backlog will be the most valuable. This means he/she decides which features should be developed and at what time during the project period.

**Scrum Master:** The scrum master is the one responsible for the project's management. He/she must make sure that the team lives by the values and practices of the Scrum methodology. By conducting daily Scrum meetings to ask the team:

- What did they do yesterday?
- What will they be doing today?
- Is there anything that it can be done better, or are there any obstacles in the way?

That way, we will be able, as a team, to express how we are performing, what is in our way and what our concerns are. This will help us notice and solve complicated challenges. As a scrum master, he/she should also help the team perform at their highest level to reach the goal of each sprint. If needed he/she should remove any impediments for the team to progress. He/she must make sure by discussing with the product owner that the product backlog is in a good shape. He/she should try to encourage the team to focus only on the present task, so that they will all work together and produce excellent work.

**Scrum Team:** As a scrum team, will do the actual work of delivering the final product and they must make sure we all have the necessary skills to do so. After the product owner makes an ordered list with all the client needs, the team members will estimate how many hours each task has. After estimation, they can plan accordingly. The team members decide which one does what task, to produce the new product increment.

## Product Backlog

According to the Project Description we came up the following items on the Product Backlog:

User Story	Weight	
<b>Burned</b>		
Make client server system	20	20
Login with name	10	10
See reservations	7	7
Delete reservations	20	20
Make reservations	20	20
See today's projections	10	10
Make database	10	10
Make user-interface	23	23
<b>Total</b>	<b>120</b>	<b>120</b>

*Figure 1 "Product Backlog"*

The user stories are organized by priority according to needs from the project description. The total estimated effort points were 120 therefore we decided to split the work into 4 sprints of approximately 40 points (2-4 user stories per sprint) which last 3-4 days.

## Sprint 1

Scrum roles in the Sprint:

- Stefan-Daniel Horvath (Product owner)
- Ovidiu Muresan (Scrum master)
- Ovidiu Muresan, Stefan-Daniel Horvath (Scrum team)

## Sprint Planning Meeting:

We started to plan the first sprint. First the features that were useful for the system were analyzed from the project description. Then, we made the product backlog with all the possible features to be implemented and we chose the first one to start in this sprint. This means that the objective of this sprint is to create the object methods, which shape the data our program uses. All of the classes need to be documented.

Sprint Backlog 1	Weight	Burned
Making the object classes	30	30
UML diagrams and descriptions	5	5
Implement classes in Java	10	10
Implement a design pattern	5	5
Test	5	5
Document	5	5
Total	30	30

*Figure 2 "Sprint Backlog 1"*



### Sprint review:

All the objectives for this sprint have been completed, the team is ready to take the next functionalities from the product backlog and put them into the next sprint.

### Sprint retrospective:

Difficulties with building class objects that share the data structure with their counterparts from the database.

## Sprint 2

Scrum roles in the Sprint:

- Ovidiu Muresan (Product owner)
- Stefan-Daniel Horvath (Scrum-master)
- Stefan-Daniel Horvath, Ovidiu Muresan (Scrum team)

### Sprint Planning Meeting:

The objective of this sprint is to add make the basic transactions possible. We will still have to continue working with the database in order to add the transactions. The transactions to be implemented are: withdraw money from the account, deposit money in the account and transfer money to another user.

The work will be done dividing each functionality into steps which are represented in the sprint backlog.

Sprint Backlog 2	Weight	Burned
Create the database in SQL	20	20
Create Tables and Functional dependencies	10	10
Fill the tables with data	2	2
Test	4	4
Document	4	4

Create database adapter	30	30
Use cases, activity and UML diagrams and descriptions	5	5
Connect the database with the system	5	5
Implement data extraction methods	5	5
Implement data insertion methods	5	5
Test	5	5
Document	5	5
<b>Total</b>	<b>50</b>	<b>50</b>

*Figure 3 "Sprint Backlog 2"*

### Sprint review:

All the objectives for this sprint have been completed, the team is ready to take the next functionalities from the product backlog and put them into the next sprint.

### Sprint retrospective:

Difficulties with choosing which database calls to implement. In the end, we ended up making more than we needed.

## Sprint 3

Scrum roles in the Sprint:

- Ovidiu Muresan (Product owner)
- Stefan-Daniel Horvath (Scrum master)
- Stefan-Daniel Horvath, Ovidiu Muresan (Scrum team)

### Sprint Planning Meeting:

The objective of this sprint is to implement the RMI functionality to have a server/client structure. We have to connect the server to the database and implement all the functionalities on the client side so that the transactions can be sent to the server and then the database can be updated. After this,

the users will be able to access to their account through any computer(ATM). The logout functionality will also be implemented in the GUI panel for the user.

The work will be done dividing each functionality into steps which are represented in the sprint backlog.

Sprint Backlog 3	Weight	Burned
Implement server	20	20
Use cases, activity and UML diagrams and descriptions	5	5
Use RMI pattern to create server class	5	5
Connect the database with the server	2	2
Implement database functionality in the server	5	5
Create runnable main class for server	1	1
Test	2	2
Implement client	20	20
Use cases, activity and UML diagrams and descriptions	3	3
Use RMI pattern to create client	5	5
Connect client to the server	4	4
Implement the components for the functionality in the user's TUI	4	4
Document functionality and sprint descriptions	4	4
Total	40	40

*Figure 4 "Sprint Backlog 3"*

### Sprint review:

After all the days during this sprint, all the objectives were accomplished, the team is ready to take the next functionalities from the product backlog and put them into the next sprint.

### Sprint retrospective:

The difficulties with the connection between the client, server and database were solved and the team is ready to continue working together for the next sprint.

### Burndown Chart:

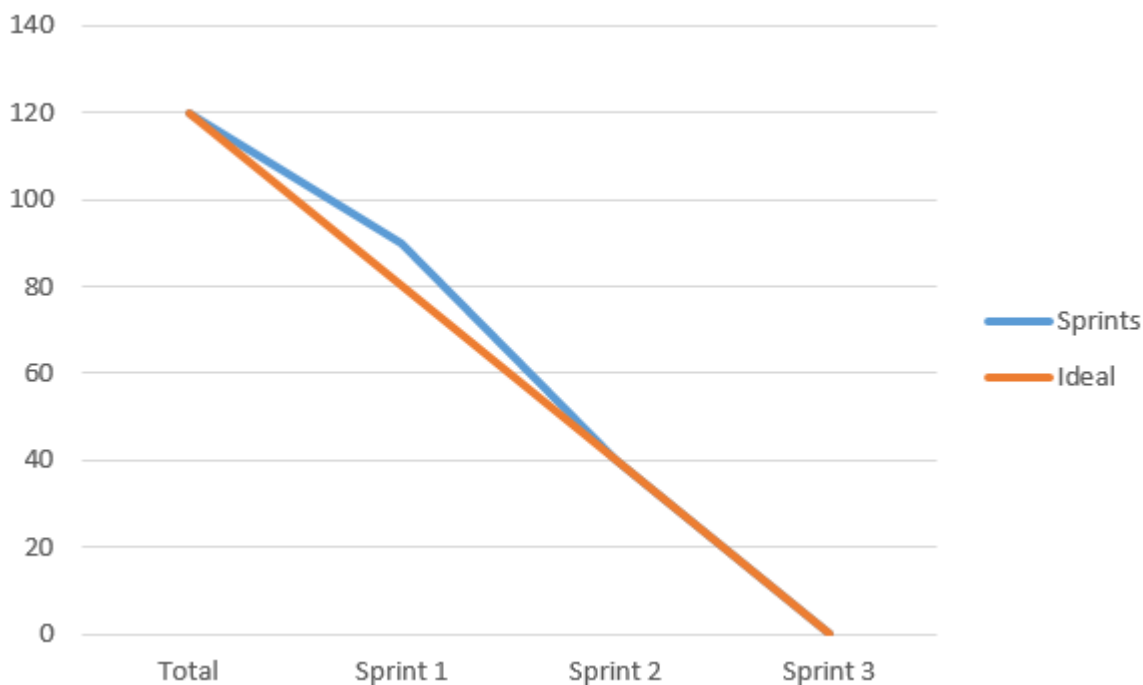


Figure 5 "Burndown Chart"

In the graph there are two lines: the "Ideal" line and the Sprints line. The ideal line shows the ideal progress of the project on the course of the 3 sprints. The sprints line shows the actual progress, and we can see it meets up with the ideal line in the last sprint.

## Unified Process:

<i>Sprint 1</i>		<i>Sprint 2</i>	<i>Sprint 3</i>
<i>Inception</i>	<i>Elaboration</i>	<i>Construction</i>	<i>Transition</i>

*Figure 6 "Sprints during the Unified Process"*

The process has been divided into sprints, for our projects there are 3 sprints that lasted 4 to 5 days per sprint. The first sprint was used for the inception and elaboration, the next sprint was used for the construction of the assignment and the last sprint was used for the transition phase.

## Daily SCRUM

The daily SCRUM meetings played an important role in our progress, because they motivated us to keep going. We had a short meeting every morning before starting to work on our own tasks where we answered three simple questions: “What did we do last time?”, “What impediments did we have?” and “What are we going to do today?”. This way, we could permanently keep track on each other’s accomplishments and a good overview of the workload remaining.

### Daily SCRUM meetings:

**08-08-2017 –Tuesday | duration:30 min**

Tasks:

- a) Come up with ideas about which system to choose.
- b) Read all the documentation from studienet about the project.
- c) Start the Project Description.

Deadline: 08.08.2017

**09-08-2017 –Wednesday | duration: 30 min**

Tasks:

a) Think about the functionalities that can be implemented during the construction phase.

b) Make individual SWOT analysis.

c) Make Group Policy

Deadline: 10.08.2017

**10.08.2017 –Thursday | duration: 30 min**

### **Sprint 1 started**

Tasks:

- a) Make the main body of the program.

Deadline: 13.08.2017

**13.08.2017–Sunday | duration: 30min**

Tasks:

- a) Document sprint and functionalities.
- b) Choose functionalities to develop in the second sprint

Deadline: 14.08.2017

**14.08.2017 –Monday | duration: 30min**

**Sprint 2 started**

Tasks:

- a) Make database in sql
- b) Create the database adapter

Deadline: 19.08.2017



**20.08.2017 - Thursday | duration: 30min**

Tasks:

- a) Decide the functionalities to implement in the next sprint.
- b) Start implementing functionalities.

Deadline: 21.08.2017

**21.08.2017 –Friday| duration: 50min**

**Sprint 3 started**

Tasks:

- a) Implement the server
- b) Implement the client

Deadline: 25.08.2017

## **1. Bloom profiles**

The Bloom profiles are charts that represent the level of knowledge of each member before and after a project. The knowledge goes on a scale from 0 to 6 and it evaluates different topics, skills or methodologies required to build a IT project. For this project, the charts have two indicators, a red and yellow “x”. The red represents the current knowledge and the yellow represents the knowledge had before starting the project.

**Stefan-Daniel Horvath**

Fill in this form – include it in your portfolio – discuss it with the rest of the group	Bloom's level	Reflecting on learning	System development	SCRUM	Java Programming	Object-oriented design and programming	UML	Database design	Written English	Spoken English	Team working	Sharing knowledge	Project planning	Presentation / exam skills
Date 24/08/2017														
Excellent	6								XX					
	5		X		X	X		X		XX	X	XX		X
Good	4	X	X		X	X	X	X			X		X	X
	3	X		X									X	
Basic	2													
	1													
No knowledge	0			X			X							

## Ovidiu Muresan

Fill in this form – include it in your portfolio – discuss it with the rest of the group	Bloom's level	Reflecting on learning	System development	SCRUM	Java Programming	Object-oriented design and programming	UML	Database design	Written English	Spoken English	Team working	Sharing knowledge	Project planning	Presentation / exam skills
Date 24/08/2017														
Excellent	6								XX					
	5				XX	X		X		XX			X	
Good	4	XX	XX			X		X				XX		XX
	3			X							X		X	
Basic	2						XX							
	1			X							X			
No knowledge	0													

## Individual Reflections

### **Ovidiu Muresan:**

As a second semester student, SEP2 was a nice project to do because it included a client/server system with a database. I am not really into working in groups for such important projects. Through it we learned a lot of stuff from each other. Personally, I found it easy to work and organize things with Stefan, we divided main tasks in 2, almost every time, working separately on our own tasks and help each other. The topic of the project was interesting and very common with the real life, nothing impossible.

To conclude, this project was a new experience and sometimes is good to work under pressure.

### **Stefan-Daniel Horvath**

I enjoyed working on the program part of the project, especially trying to find efficient ways to insert and extract data out of the database. On a whole, I learned a lot about documenting our progress and about efficiently allocating my time.