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# Online Gradebook

## Process Report

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### **Supervisors:**

Ole Ildsgaard Hougaard

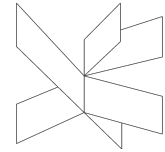
Jakob Knop Rasmussen

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**Software Technology Engineering**

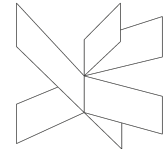
**3rd Semester**

**December 2020**



## Table of content

<b>Introduction</b>	<b>1</b>
<b>Group Description</b>	<b>2</b>
<b>Project Initiation</b>	<b>3</b>
<b>Project Description</b>	<b>4</b>
<b>Project Execution</b>	<b>5</b>
<b>Personal Reflections</b>	<b>7</b>
<b>Supervision</b>	<b>10</b>
<b>Conclusions</b>	<b>11</b>

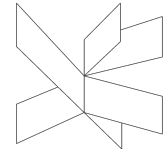


## 1 Introduction

After almost 4 months of work, our SEP group has successfully finished this semester project. As in the previous semester, we didn't have an actual customer from which we would get the requirements for the desired product, instead, we had to think of an actual product concept and subsequently any requirements of a potential customer. We consider that we have successfully fulfilled all the requirements that we've determined at the beginning of the project.

We started work on SEP in September and finished it at the beginning of December - almost 2 weeks before the deadline. Our team has shrunk in size by one member from the previous SEP, leaving us 3 in total on this project. The shrinkage of our team meant more responsibility and workload for each of us. We have started by creating the project idea in the Group Proposal. After it was reviewed and accepted by our SEP supervisors, we moved on to the Project Description. Next week, after submitting it, we have received feedback on it. Afterward, we have created the Product Backlog with all the envisioned requirements. From the beginning up until the end, we had a total of 8 Scrum sprints, like we initially planned in the Project Description.

Similarly to the previous semester, a big chunk of this semester was online, as our SEP lessons. We have conducted the work on SEP as a mix between both physical meetings and online individual work from home. We have had a bit of experience with working from home from our previous semester, so it didn't have a big negative impact on our team productivity.



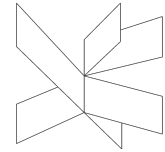
## 2 Group Description

This semester we decided to stick around with the same team members, except one member from our last semester which was excluded from our group based on priority differences and working habits. Together, the actual team has agreed to continue to work on a whole new and a different project as a 3 person-team. Currently our group is build up of the following members: Sandut Chilat (Republic of Moldova), Pavel Balan (Republic of Moldova) and Mircea Ionut Dobre (Romania).

Due to the fact that this is the second time when we are working together as almost the same group, excluding one member that we mentioned earlier, every team member can confirm the fact that we know each other and everybody is aware about every person's strengths and weaknesses, therefore for us it was much easier and we felt much more confident to start working on this SEP.

We wanted to do a better job and strive for new results and for a better project this semester, because everyone of us understands and knows the fact that there is always more space for something better and this quote and mind is one of the most important thing which united us on our project work - to be better and to do better than we ever have done.

Continuing and mentioning some points regarding our cultural background and our differences, it's worth to mention that our group is built on each other's unique personal traits and differences. Each member is a special human being and we completely accept each other's personal opinions, traits and also each other's professional skills and competencies. Even though sometimes we might have some small conflicts and some small questions to each other, for our group one of the main priorities was always to give time to such important things to be discussed and seriously analysed, for every member was crucial to get his questions answers and conflicts solved, without the matter the importance and the seriousness of the conflict. Culturally speaking, we are totally used to each other and we never had any barriers in language, cultural misunderstandings due to the fact that Sandut Chilat and Paul Balan are from the



country which is a ex territorially part of Mircea's home country, therefore we didn't have any language or cultural barriers.

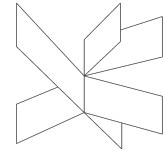
Everybody used his maximum potential and his top set of knowledge to get this project done at the time and at it's finest. Overall, we shared a good and friendly spirit between us and everybody is pleased with the work which has been done.

### **3 Project Initiation**

As it happened in the second semester project, now we don't have a customer that gave us a task, but we had the chance to choose the project, for which we had to follow some special rules and requirements.

We took this initial phase as our first step in the working process and from the same first days we had our first and most important meetings on discussing how, what and when we gonna do the required things. By passing the second semester with great success the idea of having to create an all-new project from the scratch did not scare as at all and everybody was ready and interested in starting the working process, therefore after some small meetings between us and also with our great supervisors our initial plan was ready and all we had to do was to stick to the plan and stick to the plan and continuously improve it.

For the project we mostly used some planning tools like: Google Docs in order to be able to work on the reports and writing together from different places, messenger for our in and out working communication and Astah as a modeling tool for our types of diagrams.



## 4 Project Description

Together, our team, during the work on the project description, learned and got a good understanding of the way everybody works independently especially in the context of a smaller team. Knowing each of our strengths and weaknesses, we started by splitting up the tasks optimally between us. We were working on it via Google Docs and via our Facebook Messenger group, which was mainly used to send some important information ( files, pictures, etc) very fast, and of course Github, which allowed us to easily share our code progress and collaborate on it.

Mentioning the aspect of defining the problem, we have done it at the beginning of our work. We defined a clear, general goal within the first weeks of our mutual work- therefore, developing a strategy that was based on solving all the small or even some complex problems step by step, which were spawning from the first initial big problem. In other words, we were slowly and effectively solving all the other small branches of the main problem defined in the beginning.

Together, we have discussed and categorized everybody's potential and everybody's set of skills for achieving the final result. Each one of us wanted to show his best and contribute with his skillset most effectively, thus creating the best software and well-structured documentation that we were capable of. Therefore we set a high-bar and a complex goal, which required from us our best potential. We didn't have struggles creating a smooth and pleasant-to-work-in environment.

- Scrum master: Pavel Balan
- Product owner: Mircea Ionut Dobre
- Piggy: Sandut Chilat

## GROUP 6

### Gradebook - Sprint 2 - Elaboration

Sprint Dates : 2 November, 3 November, 4 November

Nr of points for this sprint :

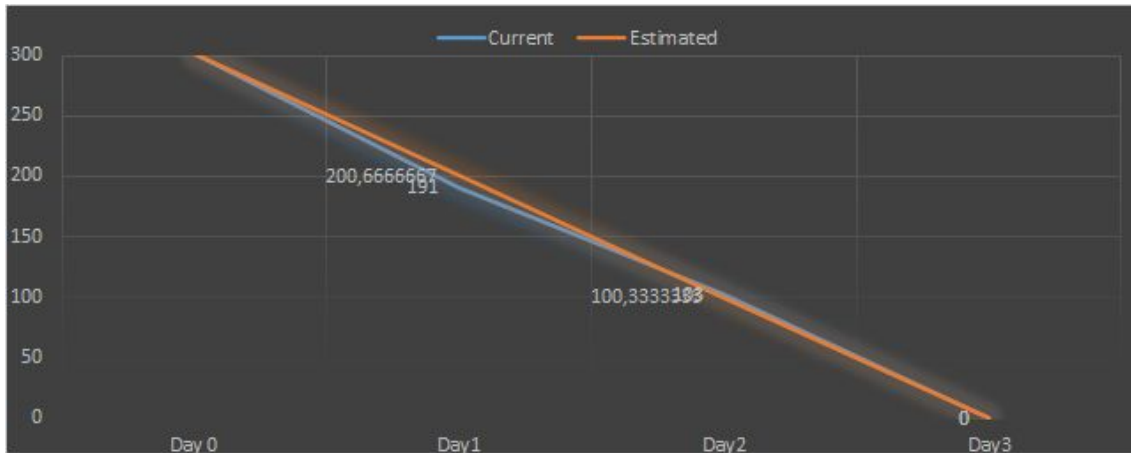
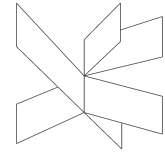
301

Day	Current Points	Estimated Points
Day 0	301	301
Day 1	200.6666	200.6666
Day 2	100.3333	100.3333
Day 3	0	0

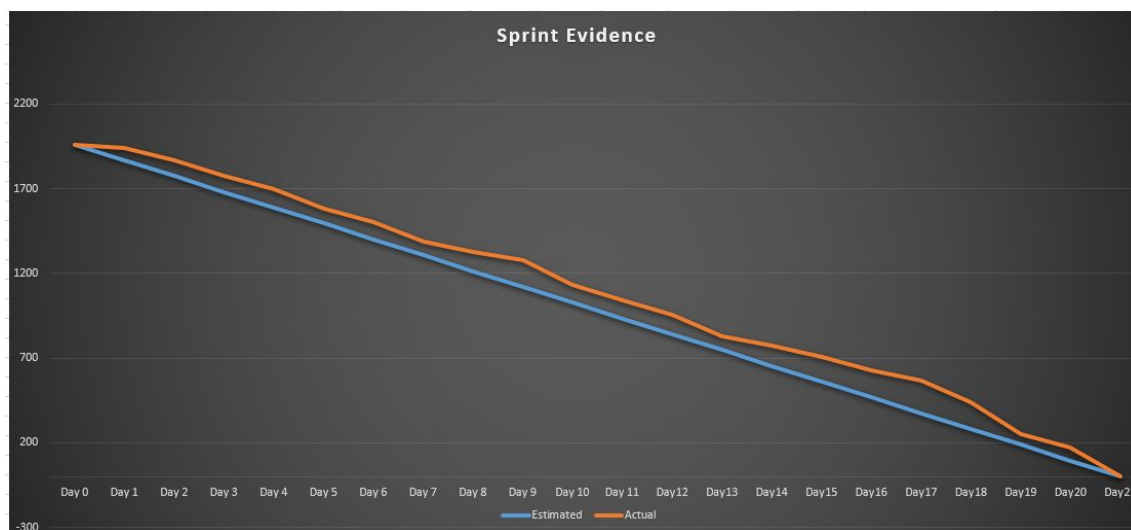
Task	Story Points	Status	Day 1	Day2	Day3
Document development performed during Sprint 2.	15	Done	5	5	5
Update teacher wireframe	5	Done	5		
Finish the design of tier 1	15	Done	15		
Start Coding tier 1 - C#	25	Done	10	5	10
Create Manage teachers use case	20	Done	15	5	
Create activity diagram for View grades and absences use case	10	Done	5	5	
Create activity diagram for Assign grades use case	10	Done		10	
Remove the calculate average grade function from user stories	3	Done			3
Create activity diagram for Assign absence use case	10	Done		10	
Create Manage Student use case	15	Done	15		
Update domain model	10	Done	10		
Create Manage Student use case	15	Done	5	10	
Create SSL for View grades and absences use case	7	Done	7		
Create Manage class use case	25	Done	5	3	17
Create SSL for View grades and absences of own students use case	8	Done	3	5	
Update View grades and absences use case	5	Done			5
Learn and how to use GitHub	15	Done		5	10
Create activity diagram for Excuse absence use case	10	Done			10
Create SSL for Assign grades use case		Done			
Design tier 2 and tier 3 java arhitecture	35	Done	10	10	15
Learn how to combine HTML, CSS and C# making the user interface of T1	10	Done		10	
Learn how to use springboot and test it	10	Done			10
Test tier 1 code and improve it	15	Done		5	10
Create SSL for Assign Absences use case	8	Done			8
Total	301		110	88	103

Scrum Master's approval :

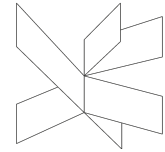
Done



The rest of the sprints can be found in the Scrum appendix.







## 6 Personal Reflections

### **Pavel Balan:**

Starting off with the group contract, I'd have to say that it did not affect us or our performance in any noticeable ways. That is because we were already pretty well self-disciplined, and thus did not need any external pressure to motivate us. We did try to meet as often as mentioned in the contract, but were unable to fully follow the schedule due to the pandemic situation, similarly to the previous semester.

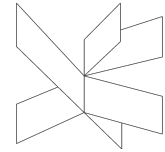
In terms of project responsibilities, I was mainly focused on the first tier of the software, being something akin to a "front-end", the web-service communication, creating the class diagrams, writing several paragraphs in the Project and Process Report, and spell-checking and correcting the others' text.

I would say that I was satisfied with the overall team's performance. All of us contributed to the project to a certain extent. The responsibilities had been divided among us based on our expertise, thus raising the team efficiency. If we had a motivation graph, I would consider it being fairly even throughout the semester, with a few peaks just before important deadlines, such as the Proof of Concept. The scrum sprints also played a role in this.

Our SEP team has remained the same as the one from the previous semester, except that we had one less member, that we had to get rid of because of his unwillingness to come to university or put effort towards our project.

Speaking about our cultural backgrounds, they are similar - 2 of us being from Moldova and 1 from Romania. We did not have any language barrier problems nor any major differences in our perspective on the issues. We did not have any major disagreements that would hinder our workflow. That is also a big reason as to why we were able to finish the project a bit earlier than the deadline, including our early home plane tickets.

In this period, I have improved my teamwork abilities and have deepened my knowledge in regards to creating a 3-tier system. Overall I would call this SEP semester a success, as I've been satisfied with the result of the project and of the team in general, despite the obstacles brought in by the Covid-19 pandemic.



### **Sandu Chilat:**

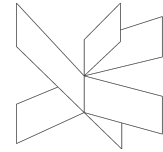
Slowly getting to the end of the semester and of the semester project always was and always will be a very pleasant experience for me, because this is the final of another end of a study chapter in my university experience. This semester was not an exception and I can confirm without any hesitations that this SEP is done and I am confident about it.

I was taught and I studied a lot of new topics, gained new skills and experience during my work on it. Together with my team we made great things and we got on a whole new level, even though there were some missed places I am sure that there is time to learn and always time to fix past errors, missings. The knowledge gained on this half a year will be very valuable during next years and other project in or out of university walls.

We had a great time together as a team, everybody learned something new, everybody expressed his feelings and thoughts in the best and the most professional way to finish the project and to finish the semester. I am feeling very proud and I am feeling very confident in my new gained sense of working as a team, skill to work on something new or even to repair and to train something old filled with errors, miss calculations etc.

The work and the given tasks were equally distributed and everybody showed his best, with the help of each other we tried to maintain a calm, organised, safe (due to current situation with Covid-19) environment in order to successfully attend every meeting, every coding and writing report session.

I will finish the last words with the reflection that everything should be done in a quite, healthy and positive working environment. Everybody should stay calm, coordinated and serious about the work which will be done. Overall I can state that I had a very successful year and thanks to the effort put together it is possible to move in the future with a bright, large step.



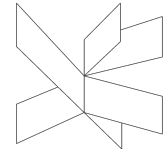
### **Mircea Ionut Dobre:**

After finishing this semester project, I can say that I was overall satisfied with the results of our work. All the team members contributed and had a part in the development of the project. Each of us had some responsibilities assigned, all of them based on each one's strengths. We were pretty motivated throughout the semester, fairly consistently but especially before the major deadlines. Just as during our previous SEP project, because of Corona, we were a bit unmotivated and not as inclined to make a lot of progress as before. But as soon as we started meeting again and following our scrum sprints, our team efficiency rose back up.

The group contract, in my opinion, helped us to coordinate our actions and cooperate with each other. The rules that we wrote in the contract were still upheld. Specifically the ones that regulated our team cooperation. We respected each other, solved every dispute together if such arose, and we tried to meet regularly and on the agreed time. The work was also done meeting the deadline and generally meeting the expectations. When it comes to my responsibilities, I was mostly focused on the second and third tiers, the database communication, and of course, several paragraphs in the documentation - such as testing, implementation, and scrum.

Our team was the same as the previous one, with the exception of one member that we had to kick due to his absence from both University and lack of cooperation on our project. Other than that, we got together based on our common expertise, interest in technologies, and similar cultural background. Because all of us are from a close geographical proximity, we did not encounter any cultural or heavy communication barriers.

This semester I solidified my knowledge in regards to the 3-tier software development and team-work. Similar to the previous semester, the coronavirus pandemic offered us some lessons about remote work and teamwork under pressure. But regardless, I think we did a good job as a team working on this SEP project.

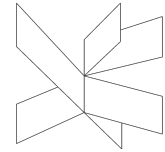


## 7 Supervision

Our supervisors - Ole and Jakob - were very supportive during this semester. We are grateful that they always gave us direct answers to our questions and had time and willingness to help us.

In addition, we are glad that we had the opportunity to ask questions at the lessons, right after classes, and even via email, which made us understand that we can count on the help of our supervisors when needed.

Our group has made multiple feedback requests to our supervisors, although a bit less than our previous semester because we grew accustomed to working together on SEP. However we can surely say that they proved to be truly helpful in the process of making the project.



## 8 Conclusions

As our team slowly gets close to finishing the project, everyone is happy and feeling proud of the work which has been done. Even though this semester was a little bit easier speaking in terms of the pandemic, we also had to do a lot of work and study some new topics at home. Each of us tried his best and has done each respective part of the project. Session by session and meeting by meeting we have studied new things, we have improved our plans and we furthered our team's working potential to some new heights by successfully finishing this project. New skills and new traits which we learned and developed this semester will be a great addition in our each other's personal catalogue of skills for our future projects from university or even outside.

From the beginning of our meetings, our group had a special set of rules which had to be followed in order for us to efficiently do our project work. Some of them were: Always being present at our group and work meetings, always being present at our meetings with the supervisors, meeting at least twice a week, and everyone giving their best. Each of us seriously took into consideration this set of rules and we can state that the following of these specific rules took us to a new level by allowing us to dramatically increase the productivity of the group and improve our working habits.

Our team always tried to discuss things a day before our actual meeting and always tried to get a good schedule for our working sessions, so everybody will be present and have at least half a day of working without any rush or deviations from our set plans. Moreover, every team member had a great sense of responsibility for our work. We think that we had a great and most importantly successful time working as a team on this project.