

# Process Report

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## Project Management System

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Software Technology Engineering

Autumn Semester

2020

Table of content

1	Introduction.....	1
2	Group Description.....	2
3	Project Initiation .....	4
4	Project Description.....	5
5	Project Execution.....	6
6	Personal Reflections.....	7
7	Supervision.....	12
8	Conclusions .....	<b>Error! Bookmark not defined.</b>

## Appendices

# **1 Introduction**

The project this semester was a real challenge for all of us, a new experience in part because we had a feeling like working on a real case, a real product aimed to solve the needs of a company.

Our group had meetings every Wednesday working on the project for 6 hours or more if it was needed. We were using Word online, a tool that gave us the possibility to work in real-time. Every document could be accessed by members at any time, anyone could edit them.

The course of SDJ1 taught us how to develop and implement a system, from RWD1 we gained the competence to create a professional and responsive website. SSE1 was the course from which we understood how to correctly document the project work.

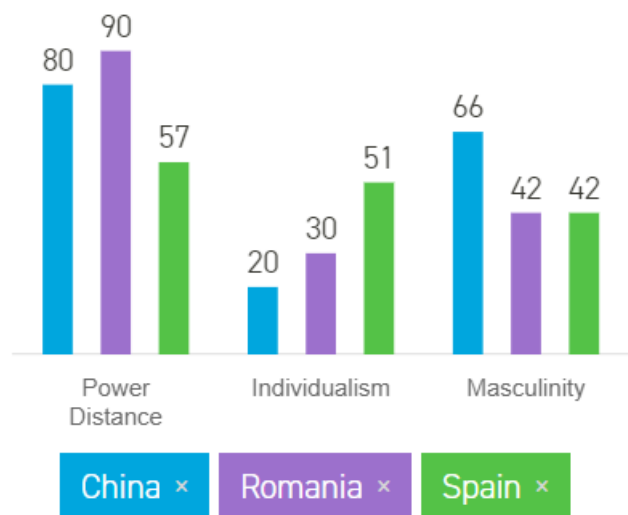
The supervisors were always ready to give us advice and guidance in case we encountered any issues, a pity that we did not use this opportunity more often, the reason being our immaturity.

## 2 Group Description

Group 8 is composed of 4 members: Maxim Zavidei, Valeriu Rosca, Jaime Elena and Shaoqing Dai. Every member currently is first semester student, some of which that have had prior experiencing in programing and some that don't. The group has a couple of different and very distinct cultures which diversify the points of view in the group.

Valeriu is from Moldova and he is 21, he has 2 older sisters. Studied Informatics at the Centre of Excellence in Informatics and Information Technologies in his home country. Valeriu chose to study Software Technology Engineering at VIA to increase his understanding and competencies in the field.

Maxim is from Moldova, age 19, actively participated in numerous competitions of C++ programming back home, most of his experience in programming consists of functional programming in competitive contests, passionate about math and computer science.



A good perspective of the cultural difference in our group can be deduced from graphing Professor Geert Hofstede's cultural dimensions of our cultures. As we can see from the graph the highest total values are in power distance. That means that we as team lack may lack initiative due to the expected guidance from someone of superior power.

There is mix of values for individualism and that's a good sign because it means we have both people that are direct in what they are thinking and people that are more thoughtful with their ideas.

Lastly, we have an average value of 50 for masculinity which indicates that our group is well balanced in regards to seeking achievements while also giving a great importance to our emotions and quality of life.

Being a team of multiple nationalities was a good experience to help us realize that it is hard and frustrating to work with people that are so different from each other. But nevertheless, it was helpful for us to learn to get along with people that we do not really understand.

### **3 Project Initiation**

The supervisors gave us the case to work on, to assess the knowledge and level of competence after completing the semester.

The group formation was built on the idea of having a team with different nationalities, thus giving us a taste of what it is like working in today's globalized society. As a team, we made a group contract in which we agreed on the rules that all of us should follow, but we were missing the punishment if the contract would be breached. The result was an unorganized workflow, especially during the last part of the project. The result was an unorganized workflow, especially during the last part of the project. We still tried to follow the guidelines, which were definitely helpful in knowing what to do and how. The supervisors were also ready to help us if we had any questions.

This phase was probably the hardest for us because we just started being a team and already had to work on something that we were not accustomed to. No experience whatsoever in working with this kind of project.

## **4 Project Description**

Color IT is a small-scale company that produces and implements IT systems, most of the times, for private customers.

One of the biggest issues Color IT currently holds is the lack of a Project management system to allow them to distribute information in an efficient way.

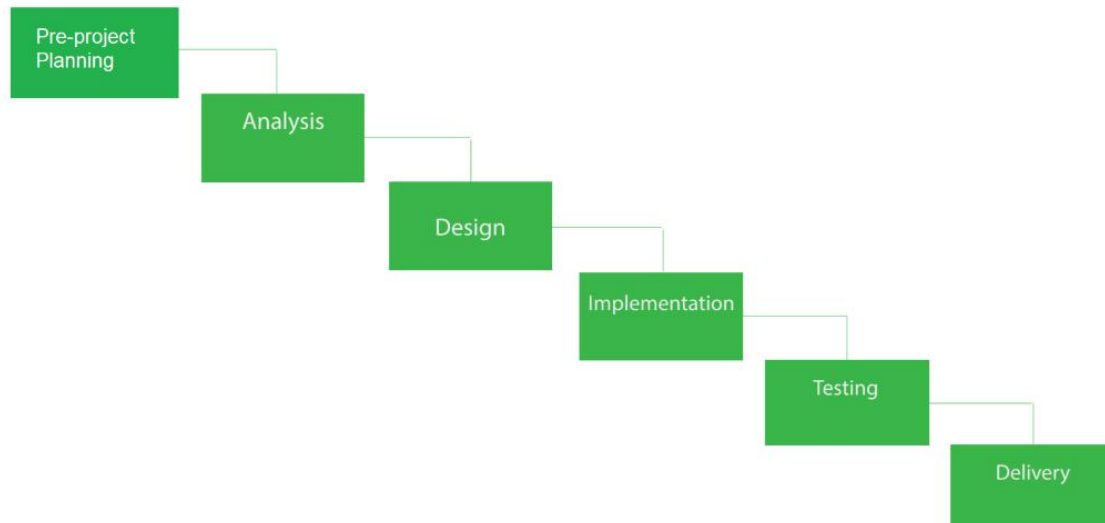
Our mission was to develop that system for the company to use, along with a website. We first made the problem statement to outline what the customer expects from us. After the interview with the customer and some additional meetings, we were able to clarify his needs and gain new insight.

We had received some feedback from our partner group and supervisors. It was important to receive feedback because it helped to determine what was good and what was not in the project.

## 5 Project Execution

At the start, we did not have any problems with time management, we finished everything before the deadline, even if we had to put much more time than it was supposed to take.

We used the waterfall method for this semester.



In the analysis part, we determined the problem that the company had, that is managing the team members' work. From the interview, we created the requirements. After that, we made the use case diagram and descriptions.

Moving on to design, the class diagram was finished. Implementation was the part where we had some issues assessing how much time it takes to do some of the functionality, which was a terrible miscalculation. Resulting in not having time to do write adequately the Process and Project Report.



## 6 Personal Reflections

### Maxim Zavidei

During this semester our group stumbled upon numerous problems and dilemmas, many of which we managed to overcome by brainstorming, by debating and by constructively thinking of different approaches for solving those said problems, weighing all the pros and cons of each approach and collectively selecting the most equitable one. Though there were many such breakthroughs, at the same time, sadly to say, there were also, less but just as significant problems that dwelled in our little community for some time that eventually severely degraded our group's performance by the end of the semester. The following paragraphs will go into detail about some of these problems describing a personal point of view of what went wrong, how things should have been solved, some lessons learned from it and ways to soothsay and prevent it in the future, but also not without mentioning what was done right and the ways we have used to cooperate efficiently.

A good starting point is the group contract, since it was one of the first things that was given us to do as a team. One of our first mistakes which I consider to have made as a group is that we didn't prioritized it as much as the other assignments at the beginning of the semester. As a result, of not allocating proper time and a lack of devoting proper attitude in defining it rigorously, this led to a really generic content based on very broad rules and most importantly it facilitated in committing a grave mistake of not phrasing any kind of punishments in case of contract breach. As a consequence, to all of this I think it created a lighthearted misinterpretation of the contract and no one really took it too seriously.

Some of the earliest perturbing consequences of our shallow formulated contract started to show in the first couple of weeks, when the punctuality for the meetings of many members (me included a couple of times) became somewhat flimsy as a result of not having a clear concise date and hour of meetings in the contract. Another collateral aftereffect of the punish less contract played a rather insignificant role in the cause of one of our ex-members (Ivan) not coming to meetings, which later became a difficult problem the group had to deal with and to act upon. Despite some failures in the project contract though, I believe everybody took the semester project very seriously in turn managing to create an environment where at least each member felt responsible enough for the project's success to attend all the meetings and offer at least a tiny bit of input at each meeting.

Even from the failures there is something to learn likewise from this experience I came to understood the value and appreciate so much more the importance of a proper rigorously well-defined contract. One personal concrete remark for the future is that including sanctions in case of a contract breach is a must, as otherwise without them it is exponentially more likely that the

members will disobey the imposed rules every once in a while, without any sense of slight fear and guilt in regards to those actions.

Moving from the topic of the group contract it will be a very relevant addition to deduce some reflection based on both the collective and individual member's performance. A nice approach to this could be by viewing the situation through the prism of personal profiles that each of us studied and took during some lessons of Study Skills for Engineering Students course (SSE1).

To offer some context personally the test revealed that my dominant color is blue and second dominant is red, meanwhile all the rest group members have been mostly green and yellow with little to no red. Translating the test results, that means I seek organization, quality with the things I am responsible myself while taking initiatives and demanding results with precision and structure from other too. Upon reasoning in regards to the previously mention results I think that that is how I have tried to work in the group most of the times. Some of the things I was assigned to and designate responsible (including group work and activities given to us on SEP and other courses too) are the following:

- Producing the use case diagram in analysis document.
- Writing and producing the diagrams for the use case descriptions of "Manage Requirements" and "Access the Website" in the analysis document.
- Producing the class diagram model.
- Commenting, documenting reformatting and prettifying a big part of all the methods used in diagram model.
- Testing and fixing bugs in some methods.
- Setting up and maintaining a repository for sharing code between us on GitHub.
- Solving and handing in 4 of 5 math related and 3 of 3 programming related group hand-ins given on the MSE course. (Not related to SEP)

Arguably, there is always room for improvement so it is the case for our team. The two major problems that we faced when working together were splitting up unevenly the workload among us and having a very, very poor overall time management in the long run. One of the primary causes for these two most weak points in the group I believe to be cultural difference. To expand on this, looking back at chapter 2 "Group Description" of this document we can see a graph showing Professor Geert Hofstede's cultural dimensions of each of our member's cultures. A particular point of interest in our that graph represents the Power Distance where we can see the maximum value being 90 for Romanian culture (represented by Valeriu and myself Max), a value of 80 for Chinese culture (represented by Shaoqing) and a minimal value of Spanish culture represented by (Jaime), taking into account such big values this means that we as a group are (relatively) dependant on someone of higher power giving us orders or hints and as a result this leads to not taking own initiative, but rather wait for the a "boss" to give instructions, which definitely was a reoccurring phenomenon in our group.

The second substantial argument which I think contributed to, and resulted in slowing down our team were the difference in personal characteristics. As an example, I will provide my personal

profile which is dominant blue and Jaime's personal profile which is the opposite dominant yellow. Being the two main "generators" of ideas in the group, this often times led to us tensely debating each other's approaches, which is only confirmed by the fact the we have opposite profiles, normally having many ideas in a group is not bad at all, but the problem in ours was that we could not settle on any opinion.

Even though we may have had some rough times working together, I am really proud of what we have made so far as not only because I learned so many new things from my team mates but also because I have learned a ton about working with people and generally working in groups, since most of my background experience involves competitive programming in C++ this is the first time, I have been put in a situation which requires team collaboration.

I think each of our group members contributed in a way that can be assessed with the qualificative satisfactory, though some more and some less which I will describe in the following paragraph.

One of the examples, of serious dedication from the team, was at the beginning of the semester when I proposed to use GitHub as our code sharing platform. At the time everybody showed an avid interest in learning to use Git which can be a really frightening system for somebody who is just starting to code.

Both Jaime and Valeriu did an amazing job at contributing developing the whole project. Jaime's creativity not only brought many new ideas helping me also evaluate the pros and cons of my own ideas and seeing other solutions too, but also aided a lot in developing, polishing and refining some design parts, for example the beautiful GUI design of the user system. Valeriu played an important role in the team as well. Often times he would represent the moral support for the team and many other times solving the debates between me and Jaime, not to mention his many contributions during the implementation phase aiding in coding a big part of it and documented it also.

During the semester we had a bit of trouble working with Shaoqing mainly because of the language barrier but also probably due to differences in cultures. Often times he would have a hard time understanding what exactly we meant no matter how detailed we explained it. While having meeting he would not talk much or share ideas, demonstrating a low input of feedback not only during those meetings but also a low interest as the semester progressed. We have tried giving him some of the easier to do tasks, but many times because of misinterpretation in communication the completed tasks he offered back would have to be corrected by us.

We also hold a big responsibility for this fault and ultimately it was our own mistake for thinking we can solve this without addressing to the supervisors as we have definitely should.

As a final note I have learned to appreciate and value a lot more, working in a group, sharing and evaluating each other's ideas and overcoming obstacles together. Usually, I have a more solitary approach to solving complicated and complex problems but being put in such a context

makes you get out of your comfort zone and try to cooperate with people in order to get done and complete the objectives put up front in time.

## **Valeriu Rosca**

During the project period, I learned how to put into practice the knowledge acquired throughout the semester. Working on real-case scenarios made me feel what it is like to work as a software engineer. That it is not just coding, but documenting what you do is also essential. It bothers me deeply that despite how much work we have done, we could not finish everything on time.

We focused too much on implementation, having the code run perfectly, making a beautiful GUI, the input/output. We started out as a group of 5, with one dropping out, and then another who just did not do anything at all. The whole project was done basically with the 3 of us, me, Max, and Jaime. It is our fault for not addressing it to the supervisor much sooner. We thought that we could manage everything, but how bitter was realizing that the time to hand in the project was coming closer, and we still had so much to do. The blame lies on all of us, without exceptions.

I discovered how important it is to have good time management, regularly keeping track of who is doing what. Communication was lacking at some points in time, resulting in a feeling that everything is going smoothly, when in fact it was not. Our cultural backgrounds, so different from each other, led to having some conflicts that stagnated the process. It is not always easy to find a compromise between us, but we tried to maintain a professional attitude towards this project.

We should have been seeking advice from the supervisors when needed, accepting that there is nothing shameful in asking questions. I always had difficulty addressing someone to help me, that is something that I want to change. In the future, I will definitely keep in mind not to repeat this sad scenario.

Diligently working on improving my competencies, knowledge, and social skills in order to advance in my academic and after, career life.

## **Shaoqing Dai**

During this project period of this semester, there are some serious issues in my work, that have affected the work of our group. I did not clearly find which part I can complete in our group project at the beginning, which led me almost no contribution to the group for a long period time. After that I realized the existence of this problem and tried to make a change. I asked my responsible group members to assign me some work, but this did not essentially solve this problem. They know enough about the project, but they do not know enough about me, which makes my work very slow and loopholes, so this process still inefficient.

I think the nature of the problem has two points. Firstly, I did not have a good grasp of what I learned in time, which led to in the process of our group work, I need to spend extra time to looking back at the content, and then the other group members will spend extra time to complete the work that should have been done by me. The second is that I did not follow up the process of our group work well and lack of communication with my group members. In some parts, I could have done some work, but I did not find and complete it in time. And in some other parts of assigned work, I faced some doubt but did not seek help in time. Which led to them eventually becoming a burden on other group members and dragging down our group progress.

From the above, I recognize the negative impact of my issues on the work of our group. And I will try to change, such as grasp the knowledge I have learned in time, closely follow up our work and increase communication with other group members. I believe this will be very helpful for the future group activities.

## **7 Supervision**

The way to clarify any of our concerns regarding the project work were the supervisors. Guiding us when we were stuck and giving precious advice on how to proceed.

We received feedback for the activity diagrams from Steffen, which made us understand what is good and what needs to change.

At first, things were going at a good pace, then one of our group members just stopped showing for classes and after almost a month we decided to consult with Mona. Ultimately, the issue was resolved after hearing the advice and proceeding accordingly.

## 8 Conclusions

In the end, Problem-Based Learning (PBL) and group work were definitely a new way of experiencing what real-world problems were like and how to work with different people. Teaching us to come up with our own solutions for problems rather than blindly memorizing information. For most of us, honestly, the workload was a bit more than expected.

For the next semesters we have a set of rules that we plan to respect and improve upon:

- To be more organized when it comes to time management.
- To split equally the work between us.
- To always report on the progress of your work.
- To offer help if someone is stuck.
- To come to every meeting.

As well as some suggestions to keep in mind:

- Accept constructive criticism, it is a good way to reflect on your mistakes.
- Accept the fact that you might not have contributed enough to the project and to try to resolve that.
- Follow the guidelines for the semester project.

The final product represents the result of our painstaking work, with some unfinished requirements, but nevertheless, it was our first project that we are proud of completing.