Process Analysis P2-project

Group B130

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Introduction 1

The process analysis is an analysis where we reflect on the project. The analysis describes how the group have worked during the semester. In the analysis it will also be described what went well and what can be changed for the next project. The analysis will be used to figure out what was done, and what to take with us in the next project. Through this analysis it will be possible to see how we have worked this semester - how we have planned our time, and how we have used our supervisor and the contextual consultant. At end the end of the analysis, it is concluded what went well in this project, and should be transfered to the next project It is also concluded what went wrong in this project, which of course should be changed for the next project.

Projectplanning 2

In this section our project planning is explained. The methods for planning a good project, which tools have been used, how it turned out, what went good, what went bad and what could have been done better. All of these are expounded.

2.1   Administration

Like in our last project everyone had different roles and one of the important ones was the coordinator, who kept track of the time schedule which we made in the beginning of the project. The time schedule was constructed with some spare time in the end, it could be called buffer time and could be used if we were delayed. With the coordinator distributing the work we kept our time schedule most of the time. As the last project if there were a lot to of different assignments running at the same time, then the coordinator would select a second in command that would share the responsibility of keeping track of what had been done and should be done.

   We really like this work form and chose to continue using it throughout this project. We still feel that it correlates very well to our skills and work form thus makes us work very efficiently.

2.2   Time Schedule

As we know from the previous project a time schedule is a really important and handy tool to keep track of the flow of the project. It really helps with planning ahead and ensures that everything is done in time for our deadline. We are still using Microsoft Project to make the time schedule and the Gannt diagram to show the different assignments. Even with the experience we had from the previous project, our time schedule was still changed along the way, and it will probably be like this for the future projects as well, because it is difficult to predict how everything will turn out. We will still use the same approach for our next project, because we think this works very well.

2.3   Decision Making

In this project we continued to use the same form as the last project. No group member is allowed to make a major project related decision on their own, we as a group had to come to an agreement first. In this regard we decided that at least five group members should be present when a major decision should be made. Concerning the project it was very

important that everyone knew which direction that was headed and what they wanted of it.

When a decision was needed we held a meeting to which we appointed an agenda manager to keep it structured and civil so it was possible to hold a conversation and come to an agreement. We still believe this is the best way to handle decision making, so we have continued this style from the last project.

Group Work 3

Our group work for this semesters project was really good. Just as the last project we had a high work moral and we worked from 09:10 to 16:15 each day. We worked so well and hard that we decided that it was okay to leave at 14:00 if we so desired. Due to changes in the planning we did not meet our time schedule, so our group coordinator decided that we had to work until 16:15 again, and we should have a good reason if we wanted to leave before that. Just like last project we had our weekends and holiday free to do what we pleased and that also helped keep our moral high.

All in all our group work was very productive and everyone did their part to get our project done in time. This chapter will be a more detailed look at our group work for this semester to get a better understanding on what we did and what might be done better.

3.1   Group Contract

In the beginning of this semester the group had a meeting and made the group contract which can be seen on appendix A. The group contract consists of the rules regarding the group work and the general behavior in the group. The group contract has not been changed a lot since last semester. The only thing that has been changed is who has the responsibility to keep the group members serious during group work and lectures. Last semester it was the group coordinator. Now the whole group has the responsibility. If any of the rules in the contract are broken then the rule-breaker has to give the group come sort of compensation like cake or something like that. Some of the rules the group changed were the daily working hours and some roles in the group like the group coordinator and the person responsible for making summaries of our meetings with the supervisor.

Our opinion about the group contract is that it has worked fine. It is a good idea to have rules about for example meeting time so everybody knows what is expected of every group member. We changed a bit in the working time this semester so we now meet at 9:10 when we do not have classes in the morning. Besides that has the rule about group members being allowed to leave at 14:00 was suspended in the last part of the semester. We think that our group contract is good and does not need big changes when starting on the next semester.

3.2   Division of Rules

From last semester's group work and the PV course last semester we learned that is was a good idea to have certain roles divided among the group members. When assigned a role

one's role does not change throughout the semester. The group allowed every member to decide for themselves if they wanted a specific role but all roles were divided among the group members so it were not only a few who had special roles in the group.

Having solid roles is a good idea because they make sure that there are an overview of the project and that the needed things will be done - like updating the time schedule and writing summaries of the meetings. There were some roles that also were used on last semester that we found very important. The roles were project coordinator, agenda manager, reporter and a conflict solving team. A change from last semester is that the coordinator now also has the job to keep contact with the supervisor. The group coordinator is the most important role in the group since he/she has the responsibility to keep the big overview of the project, update the time schedule, and keep contact to the supervisor. The agenda manager and reporter has the responsibility to control and write a summery of the meetings. These documents were then saved for later use. Conflict Emergency Team (CET) is the group's conflict solving team if any conflict should happen in the group. The CET consists of 3 members so if two of the members are in a conflict then the last one will be able to try and solve it.

We would like to keep these roles for the next semester since it works very well. We think it is important to have these roles and that only one group member have a role for the whole semester if able since it is not always easy to take over a role you are not used to fill.

3.3 The Meeting Culture

We made a choice that normally we met at 09:10 on weekdays if there was no lecture at 08:15. We then work until 16:15 in the afternoon, but we have the choice to leave after 14:00 and then use the remaining time until 16:15 to work at home. But approximately halfway through the project it was decided, that we should stay and work until 16:15 because we were getting behind in the project schedule, and there was a tendency that less work was made at home.

The meeting culture in the group was working very well, because every member of the group were working well together and wanted to get the best out of this project. Although we were getting behind in the schedule nobody had anything against the change of the meeting culture. At 9.10 there is a meeting where we tell what we have worked on the previous day, and what every member of the group is currently working on. On Fridays there is a more in-depth meeting where we look at the status of the project and how the group work together.

3.4 Morning Meetings

At the beginning of each work day, we held a short meeting, where we discussed what each group member had to do during that day. If a member was not currently working on something, the group coordinator would give that member a task. This helped the group see the progress of the project, and also ensured that no member was doing nothing at some point.

3.5 Friday Meetings

Each Friday we held a longer meeting where we had the following agenda:

1. Purpose: The purpose of the meeting is explained

2. Acceptance: Can the purpose of the meeting be accepted?

3. Status: How far are we in the project?

4. Working sheet: What is going to be in the work sheet, which is sent to the supervisor? The group members in charge of the working sheet is also chosen.

5. Teamwork: The corporation of the group is evaluated.

6. What Happens Next: What should each group member work on now.

7. Any Other Business: If a group member has something which needs to be discussed

8. Next Meeting: The date of the next meeting is decided.

9. Evaluation: The evaluation of the meeting.

The Friday meeting helps each group member gain an overview of the project and ensured that every member were aware of what needed to be done.

3.6   Summary of Group Meetings

Summaries are made at the meetings and are made by the reporter who then saves them for later so everyone in the group has a chance for reading them. The summaries are made from the agenda list and mostly consists of keywords or short lines explaining what was talked about at the meeting. It is a very good idea to write summaries at the meetings since everything that needs to be done in the following week will be saved. Another good thing is that if a group member is missing from a meeting that person will be able to read what happened in the meeting afterwards and therefore still keep up about what is happening in the group.

Collaboration with Supervisors 4

In this chapter it is described how the group held meetings with the supervisor and contextual consultant, why these meetings were held, and how often. It is also described how the group used the contextual consultant in this project.

4.1 Meetings

We held a meeting with our supervisor every Monday, except on holidays. This ensured the group was kept on the right track, and also motivated us to continue to improve upon our project. We agreed on sending our supervisor a worksheet every Friday, and he would bring a corrected and commented edition on Monday. On the meetings we would discuss the status of our project, and come to an agreement on what we should focus on until the next meeting. In this semester we also had a consultant to help us with the contextual part of the report. We only had one meeting with the consultant, because only a limited time was allocated to this. But the meeting resulted in some interesting contextual correction, which in some way were adopted. All in all, our experience from the last project showed that if we held this weekly meeting with the supervisor, it would keep us on the right track, and it did, again.

Process of Learning 5

This chapter is about how the group internally shared knowledge and ensured that every member of the group has read and understood the project report. It is also about how the group has ensured learning in the different courses, how the group members have worked together, how we in the group ensured a good working environment and that all members were comfortable. The working method that we have used is described in section 5.2 and why we used that specific working method.

5.1 Goals of This Semester

In this semester there has been set some goals, which are meant to be reached during the semester. The goals are as follows:

Knowledge:
The student will after a completed project-module be able to:

- Understand and account for syntax and behavior of language constructions in a concrete programming language, and how they work.

Skills:
The student must after a completed project-module be able to:

- Implement a larger program. This includes utilizing and understanding concepts, structures and facilities in the programming language, and on this basis construct a well-structured program

- Complete a test of the program which, in fair extend, ensures that the developed program corresponds with the problem statement.

Competences:
After completion of the project-module, the student must be able to:

- Delimit a problem and in this issue articulate and defend a problem, which can be solved by programming, as a main-part of the method to solve the problem.

- Develop a model, which can be applied in connection with the solution of the selected problem.

- Complete the work to a executable and demonstrable program, and hereby show skills at delimiting.

- Describe how the program solves a formulated problem within the context of the problem statement.

- Include relevant user-related and social aspect of solutions within computer science and software technology.

- Describe, reflect and analyze the gained experiences with working with a problem based project in a group.

What has been done to reach these goals?

All members in the group have followed this semester's three courses: Object Oriented Programming, Computer Architecture, and Discrete Mathematics. We have used techniques and skills gained in these courses in our project.

Did we reach these goals?

The knowledge goal has been reached. This is reflected in our program, which is a working suitcase packing program. The goal about skills has also been reached. We have implemented a larger program, and constructed both user- and unit tests on this program. We are now able to find a problem, delimit it, and solve it using programming as the main-solution to the problem. We have developed models for the program, and in the conclusion in the report, it is described how the problem solves the problem within the problem statement. We included user-related aspects of the solution by creating a program which solves the problem of packing a suitcase properly. The whole project is the result of the reflection and analysis we have made by working with a problem based project. Therefore the competence goal has also been reached.

5.2   Problem Based Solving

The problem based solving method is used for two reasons. Firstly it is the standard work method on the University of Aalborg and secondly it is an efficient method for learning. This working method is also fitted for group work, because the group will have to work together and find a solution to a problem.

When working with a problem you gain experience looking into a problem, understanding the problem and through the understanding find a solution if it exists. A very important part is also to document the problem before actually try to solve the problem. These experiences can be used in the projects to come.

So we still find the problem based learning the most effective and attractive way of learning when working in a group.

5.3   Responsibility for Own Learning/Mutual Responsibility for Learning

In this group, we think that the lectures are very important. It is stated in the group contract (see Appendix A), that each member of this group must be present at all lectures. Because Aalborg University's projects are based on group work, we think that each group member has a responsibility for their own learning. If one group member has trouble understanding something in a lecture, the other group members should help that particular

member understand it. So even though we have responsibility for our own learning we also have a responsibility to the group and to help those who seek help. This is important for the group to work together and help each other understand and learn.

5.4   Learning Styles and the Work Environment

Working environment is a very important part of the group work because it can harm the working process. Therefore we have decided to have lunch in the middle of the day. This is to ensure that members of the group get something to eat and to have a break to have casual conversations with other members.

Since the group room is rather small, the window is open most of the time to ventilate the room and to get some fresh air. We experienced from the last project that a closed room with bad ventilation can cause members to loose their concentration and therefore we have chosen to ventilate more on a daily basis.

In the last project we also experienced that a casual environment is important. The group has chosen to keep the water heater, the refrigerator and the microwave from the last project because it made it possible for members to make tea and reheat food. During this project, we have also acquired a coffee machine and an oven. This has a positive effect on the work environment.

The group also kept the deal with all members attending the lectures and the group work afterwards. If there are no lectures we meet and work on the project instead. If a group member is not able to attend he/she should have a reason that should be given to the other members.

5.5   Knowledge Sharing

In this project we have used subversion (SVN) to manage all report and knowledge related documents. This helped us greatly when it came to correcting the report. We had a strict cycle when writing new documents for the report. When a document was written, it was placed in a folder called "Ready to be corrected". Then another member of the group had to correct it, and place it in a second folder called "Ready to be corrected second time". Next, a third member of the group had to correct the document again, and then place it in a third folder called "Ready to be inserted in report". All documents in this last folder was considered completely done. From this folder, only the group coordinator were allowed to move documents into the required folder for the LaTeX to compile it correctly.

For the program code we used Microsoft Team Foundation Server to gather all the program code and administrate it. This is because when writing C# code, Microsoft Team Foundation Server provides a very good source-control inside Visual Studio. For example the Team Foundation Server was able to auto-merge most files if two files were edited simultaneously. When we corrected the final report, and also this process analysis, we read the document at home, and then corrected everything on our projector. This also helped us spot minor mistakes we had missed when correcting the document at home.

5.6   Blooms Taxonomy

Bloom's taxonomy is a way to measure how good one's learning skill is, with 6 abstraction levels. By using Bloom's taxonomy we can see what level we have reached. The conclusion

was that we made it up to the 6th level, because we could evaluate this project and see what our profit was, what has been forgotten, and what we could have done better. It can be seen in the project that we have analyzed, understood, and evaluated the problem and found a possible solution to the problem. The evaluation and conclusion on the process can be seen in the conclusion chapter in the project report.

Retrospective 6

In this chapter we will discuss, put this project into perspective, and the work regarding it. The working time of the project was from 9:10 to 16:15 every day given that no lecture was scheduled that day. By doing this there was a high productivity in the group, and there was still was time for fun. To improve the productivity, the option to work at home from 14:00 was removed when we went behind schedule. We did this because working in the group room resulted in a higher productivity. One of the good features for a group is that we are social and friendly with each other because it enhances and improves the group spirit. This can be useful for work in the future that you can work with other people and be part of a group.

We had a meeting with the supervisor nearly every week to make sure that we were on the right track with the project all the time. There was a single time when the supervisor meeting was pointless because the week before there had only been work on the program. The overview of our project was easy to keep since the structure of the report was well organized. The schedule was well made and that made it easy to keep track of the progress of the project. In this project there were a few roles in the group. The roles were those we thought were necessary to ensure optimal group work. This time there was only made a summary at the meetings with the supervisor and not for the morning meetings since it was not used that much as in the previous project.

Compared to our P1 project, we had to work somewhat harder with the result being a better report and a good product. Our working progress has been nearly the same, but since we got behind the schedule for this project we had to work a little harder. The method for project work makes the process easier to comprehend and thus making it good for future projects.

Conclusion 7

We think that the whole project went very well. We have used the group coordinator and time schedule as magnificent tools for controlling our project, and keeping us on the right track in terms of the deadline. When the group coordinator noticed that we were behind schedule, he suspended the rule about working at home from 14:00, which turned out to help greatly on our progress. We have not been in need of the Conflict Emergency Team yet, as there have not been any conflicts in the group, but we think it is important to keep the Conflict Emergency Team if a conflict should arise. We will also keep the other roles, for example the Agenda Manager, who makes it easier to have meetings.

This project is based on the problem based learning method, which means working with a society problem, and trying to develop a solution to the problem. This has helped us understand the context of the problem on a deeper level. We made a partner analysis, to help us aim our solution to the problem at specific types of people.

Every member of the group has been doing an active part of the work in this project. Throughout the project, we have gathered new knowledge on the subject of packing a suitcase. We are already experienced in working together, as we were also working together in the first semester, and yet we have further developed our skills at working together as a group.

Group Contract A

Rules

§ 1 If anyone breaks rule §2-§9 the rule breaking person has to buy cake/sandwich/pizza or the like to the other group members.

§ 2 Keep appointments - also meeting time.

   a You need to notify the other group members if you are unable to come or delayed.

§ 3 A normal workday is from 9:10-16:15, unless there is a lecture in the morning - Then the meeting time is when the class starts.

§ 4 Everybody needs to be ready to work at 9:10.

§ 5 Lunch is from 12.00-12.30.

§ 6 Be professionally dedicated about work, the classes and the solving of group work.

§ 7 All appointments about deadlines on parts of the project must be kept.

§ 8 For all work related documents or other things LaTeXand SVN is used.

§ 9 If a group member does not participate in the group work, or are doing something unserious, the other group members can shout "Chicken" at the person. If a person gets 3 "Chickens", they must be punished according to §1.

§ 10 There are high ambitions about the project.

§ 11 When the group is making important decisions a minimum of 5 group members have to be present

   a All decisions will be put in the folder "Beslutninger" - Group members not present are notified by sms.

§ 12 2 group members work on the worksheet. If the work is not satisfying 2 new group members will be assigned the work.

§ 13 There will be a morning-meeting from 9:10-9:20 every work day, where we do not have classes. In that case the meeting will be right after the class.

§ 14 If the workload is too much for a group member the rest of the group needs to be notified as fast as possible.

§ 15 The group coordinator has the responsibility that this problem is solved.

§ 16 The group coordinator has the responsibility that the time schedule is followed.

§ 17 It is a common responsibility in the group that all the group members are serious about the work.

§ 18 Friday meeting is every Friday morning unless the group has to go to class - in this case the meeting is Thursday morning.

    a On this meeting the work of the day and and the weeks work will be discussed

    b It will be checked if the time schedule is being follow

    c Common thread (Where do we want to go? What happens now?)

    d The worksheet are to be send before 12.00 Friday. The worksheet is made just after the meeting. The structure of the worksheet is discussed on the meeting. The worksheets is sent to the contact person.

    e If any group member knowingly, repeatedly breaks the rules, CET is responsible for that being discussed on a group meeting.

Also see "Nøglesamarbejdsaftalen" - (The contract about keys to the group room)

Group roles

Coordinator: Christian (If not present Mette)

Moderator: Dag (If not present Aleksander)

Reporter: Mette (If not present Dag)

Contactperson: Christian

Postman: Rasmus

Writers of the worksheet: Aleksander and Niels

CET - Conflict Emergency Team: Mette or Kasper or Christian (Only one person needs to solve the conflict but if she/he is in the conflict another member of CET has to solve the conflict)