CS3343 Software Engineering Practice

BSC4 Project Group 6

Self-assessment Report

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In this project, I take up the role as a Project Manager. I tried to organise the different tasks to the teammates according to their strength. The progress of the development is run as expected. Concrete deliverables can be delivered in different release stages.

During the project development, there is some misunderstanding on the system between developers and testers. This may due to the program complexity or the lack of communication inside the project group. This could be avoid by clear documentation and sharing between the group members. Also, that could indicate some improvement can be performed in task distribution.

Despite the limitation of time, different parts of the projects like the program itself, test cases, documentation work are properly done with the help of different project teammates. Although the contribution of each member may vary, the cooperation between the members are mostly positive in building up the projects.

In the project implementation, we have successfully exercise some of the practises learnt in the class such as the way how we organised the work and using some charts to keep track on our progress. For example, we use Work Breakdown Structure and Gantt Chart to estimate the working process. Moreover, the bottom-up testing process is also adopted.

Personally, I was a bit passive in the project contribution. This could due to the heavy load of work from another project and workspace. Time management becomes crucial to the participation. Other than the programming practise, I’ve learnt how to manage time to contribute in this project.

Also, it is important to maintain the repository in a structural and systematic manner. In this project, we use Google Code as the repository and TortoiseSVN as the client. This greatly help in document sharing, version control. With the help with the tools, we can perform code diff checking easily and merging the work of different teammates.

All in all, it is still an enjoyable experience to work with the teammates to complete this project. I do hope the product – class scheduler can help the student, especially us, to arrange out timetable. Further extension of the project could be continue to make the system more robust and capable for different scenarios.

Cheuk Yik Sum 53012319

In this project, we are requiring to perform the whole software design process to complete this project. Actually this is not an easy job because the requirement of this project has a lot of things I should concern.

The two software engineering course (CS3342 Software Design and CS3343 Software Engineering Practice) can let me understanding the whole software engineering process and I can apply it on this project. So this project can let me perform the whole software process.

I am performing the role of assistant project manager and responsible for the documentation process and write test case. The challenges of my role is that I should coordinate all the project member and assistant them to finish on some work. For example, when I write the Analysis and Design Report, since some of the design parts are performed by the pair programmer and I need their assistance to complete some part of the report. And sometimes they do not commit to our SVN project page on time so I may face the delay of the work and may not meet the release date. So this makes me understand the importance of project management because a good project should be coordinated by our entire project member.

In this project, I have learned the team spirit between team members. I will try to give comment and listen to the others’ opinion on the products. Without the support of them, I think we may not handle all of the project process. Then, I learn how to manage the time well in this project. Although 13 weeks of the project may seem to be to urgent to develop a program, but with the monitor with each other, we can catch up the project schedule on time.

Although sometimes my performance may not be quite well and always have friction between the other project members, we finally can deliver our product on time. This brings me the experience to understand the whole software development process and when I have the chance to enter the software firm in the future, I can use this experience to help me adapt in their job.

To end with, I thanks with my project teammates of their contribution of this projects and hope we can have the chance to cooperate in the future.

Chan Ho Man 53091240

## My duty

I am the Configuration Manager of the team. My responsibility is to learn how to setup the environment for program development and testing, and also teach my teammate to setup the environment so that they don’t have to learn how to setup the environment by their own. Apart from this, I also need to help other teammate to solve their problem when they encounter problems when they are building the system.

## My achievement

I have learned how to use the tools below:

1. SVN
   1. Google Code
   2. TortoiseSVN
2. Eclipse
3. JUnit

SVN is used to manage the program build for all of our teammate, teammate can share their code and document online via submitting their code to the SVN server. And we can use the SVN client to get others work. This tool allow us to work together on the internet without actual face to face meeting, and save our time.

Eclipse work as a SVN client which also allow us to directly change the code and submit it to the SVN server, so we can use it as our development platform for this project.

JUnit is a automate testing plugging for java program, this is our platform for testing the system.

Some of our teammate are not familiar with the SVN system but after some demo on the check out and commit function, they can successfully use the SVN client to get the code and work with others.

I am also a programmer in this project, and I have assigned a task which is add support for adding support for core course inside this program. That makes me understand the work flow of adding function in a program. I have the code that wrote by other people and add my code base on their implementation of the program. That is a success

Beside of all that, we all have to do the job management, which is divide the programming task into subtask and give them to members. This give me the chance to learn how to work with others in project.

## Incident

The SVN client in Eclipse cannot work properly and it cannot submit code to google code normally. Therefor we have to use another SVN client which is the TortoiseSVN.

Lee Man To 53075299

I am a programmer in this project. The topic of the project, course scheduler is my idea. I hope that I could finish this topic as I think this is an interesting topic.

At the beginning, my teammates think that this is a difficult topic, as this topic may involve too many computations. But I think it is very challenging. Hence, I build up the structure of the programming quickly, and pay lots of effort on adding features and design a reasonable algorithm to do the thing I would like the program help me to do.

While the development process, I sometime figure out what is needed to make the program perfect. For example, core course support, lecture and tutorial, etc. these items are designed by me, and I also provide information for my teammate to make the test case.

I am not any focus on the feature and also the runtime, I think that a “brute force” solution is not acceptable because it is not effective and the computation time will be very long, hence I tried to use some method to reduce the computation, such as conflict number and predict the consequence of selecting a section, will it having conflict will other section. Although these things make the program become more complex and difficult to test, but my teammate helps a lot on it.

During the development, we have many ideas on how to handle the data, at first my design have two different classes to handle the data, one for simple cases and one for complex data. But someone comment that the logic of these two classes are very similar, maybe they can merge into one class. I very thank for this comment, it saves me a lot of time on implementing the addition feature on two classes. And I know that sometimes I may be to focus on coding, and forget about the time and the overview of the project.

Now, this project is now completed, however, I still think that I do not finish it. Although I am the main programmer and contributed a lot. There is more and more feature I would like to add. For example, supporting multi-timeslot section, and some auto-ordering that user don not need to input the priority, but the program will help to decide it base on timeslot, location, etc. As a programmer, I really hope to finish it and make my work perfect, and these features are discussed already, but because of my poor time management, they could not be finished. I hope that I can keep on develop it when I am free.

Thank of this project, although I did not do much thing about testing, but I have do much on refactoring, this help my teammate to understand the program and come easily test the program. This project also let me to actually participle on a software developing process, this make me more familiar about it. At the end, Thanks of my teammate, they all perform well on this project and help to improve our work. Although it might not be perfect and may be stills contain some bugs. But we really enjoy it.

Ho Sui Cheong Johnathan

In this project, my role was pair programmer. I had taken part in the testing of the program and the preparation of the documents. When accomplishing these tasks, there were a number of obstacles encountered.

The first to note is the limitation of time. Not to mention the team has only got one semester to finish the project, our time is occupied greatly by our placement jobs. A better time management is required to contribute a greater quality and quantity of work.

Another obstacle to note is the teamwork-nature of the project. Before taking this course, I have not taken any course that the group project requires the team to write a software together and work closely to archive a bug-free product. Each programmer in the team write a part of the program. It is more than often that we cannot understand what the codes others write mean. An efficient communication among teammates is needed to overcome this difficulty.

The next obstacle is a bit more personal and practical. My own programming ability is weaker than the rest of the team. Much more efforts are needed to pay by me in order to finish my part. Although the algorithms used in the program are not very complex, I still have difficulties in understanding every single of them. Thank you for the guidance and advises provided to me by the team and I truly learned the importance to be in a good team.

Despites all the obstacles we faced, it can be concluded that the team had learned a lot from the project, especially me. In the future, there are possibilities for us to take part in software projects of different courses and companies. I am sure that the experiences we have learn from this project can help us to handle these upcoming tasks.

Cheung Chi Ngai 53013494

In this project we are required to join the whole software development process and use the test-driven approach to develop our program. By using this approach, I am able to learn the ideas on how software testing can be integrate throughout the whole development cycle. Normally when we still study cs3342(software design), we are using the waterfull model to implement our and do a simple testing before deployment, but in this project, we have learnt a lot of tools to fulfill the different requirements, such as program design , version control, code refactoring , automatic testing, coverage analysis, etc.

In this project, my role is pair programmer, after the architecture design discussed by us, I have to implement a solution at the first stage and do the unit testing before each commit and very soon the software tester will give me a feedback by bug report and I have to make change to the program in order to finish the whole software system.

I also learn how to effectively communicate with my teammates by using version control tools as well as real discussion. Google code let us commit the change easily and easily trace by the othera and not override the work we done before. When thing comes wrong we can also checkouts the old version to redo the thing.