

# **FIT3162: Advanced Computer Science Project 2**

## **Reflection Entry 2**

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# 1 Work and Learning Experience

Coming into the new semester, I was excited to get started on the implementation of the project. It was my first time being involved in a project that took up so much time, which consist of multiple detailed phases. The experience that I was able to obtain from the past 12 weeks was great, in terms of the things I learnt, the challenges that I had to overcome, as well as the things that I learned about a team setting. These factors will be discussed in the subsequent sections. Besides that, in terms of the work experience, I am grateful to have experienced and gone through a full project which properly implemented a project management approach. I believe that this experience will definitely assist me in the real-world in the future.

## 2 Summary of Important Activities Milestones

There are a few important activities that my team and I managed to complete throughout the past 12 weeks. To name a few in chronological order:

- Setting up GIT Repository
- Finalizing initial development environment and coding language
- Shifting platforms for both front-end and back-end development
- Successfully setting up the back-end
- Successfully setting up the front-end
- Satisfying the minimum requirements to build our MVP
- Refining the software and adding in additional features
- Successfully integrated and tested the system

## 3 Reflections on Achievements

There were a lot of things that our team achieved as a whole. But due to this report being an *individual* report, I shall reflect on goals that I had personally achieved from these past 12 weeks. Firstly, I am personally disappointed with the problem that we had in the initial weeks of the project, where we had to change our code from Python to JavaScript. Many may see it as a success as we were able to successfully switch platforms without any issue, and was able to subsequently create the software. However, I believe that the fact that we had to switch coding languages in the first place, meant that we had done insufficient research during planning stages in the first semester. I believe that had we done more detailed, deep, and thorough research in terms of the actual code and libraries needed, this could have been prevented. Consequently, we could have straight away begun with JavaScript and would have spent less time in completing the project, perhaps even being able to refine and add in better features into the final product. Regardless, this was a good lesson as I now know of the amount of deep planning and research required when doing a large-scale project. In future projects, I will probably start pseudo coding even before the implementation phase, and to look up on potential functions and libraries that need to be used. This way, we will be able to mitigate the risk of wasting our time coding in the wrong language, and then needing to switch to another later.

Besides that, I am proud of my ability to successfully complete my obligations in terms of my role in the team, as well as doing extra to cover for others. Despite juggling with multiple assessments from other units, and despite our team having setbacks in terms of deliverables, ultimately, I was able to help my team turn this project into a successful implementation. I personally believe that the workload that I had taken on this semester was not an easy task, as I had three core units out of the four units I took. That

being said, to be able to contribute more for the team when others are not performing at the level expected is extremely respectable in my opinion. Therefore, I believe that looking back at the past 12 weeks, I respect myself for taking on the challenge of the insane amount of workload that I had to complete, not only for myself, but for others as well. I believe that this experience will be extremely valuable moving forward, as when I will not know of the type of people that will be in the working industry. It was from this experience, was I able to learn and understand that if I want to achieve something and get something done, I can only rely on myself, and not others, to complete a certain task.

## **4 Problems Encountered and Solutions Adopted**

There was a major problem that we encountered at the start of the project. As mentioned earlier, we initially coded the front-end in Python. The problem was basically in the http request, where Python could not get the job that we wanted done. Therefore, Yi Sen and I had to look up on different languages for potential solutions. Thankfully, we found JavaScript code that was able to perform the task that we wanted. Despite it being extremely annoying, we migrated the code to JavaScript and had to do everything all over again. On top of that, it was not easy integrating our software. Essentially, the back-end had delays, where the connection and input of data had issues. Thus, despite Yi Sen and I completing our parts, our subsequent tasks that could only be done after integrating with the back-end had to be delayed. This was annoying but eventually, we were able to solve the problem after helping the back-end with their task. Despite needing to do more than required, and needing to work with a tighter deadline, we were able to get our work done before the next meeting with our project supervisor to show the MVP. Furthermore, there was an issue with identifying keywords and the logic on how we would allow the user to select the questions. Essentially, the back-end had not put in enough data for us to satisfy this requirement. Yi Sen and I did not know of the inadequate upload of data, and thought that the data was the only thing that we could work it. Therefore, after a thorough discussion with the back-end team, we finally figured out of the inadequate upload of data. Thankfully, we were able to quickly upload the required data to satisfy that particular requirement, where we could allow the user to choose the question that they want to be answered.

## **5 Technical Issues**

There were not many technical issues for the front-end team, mainly the migration of our code from Python to JavaScript, as mentioned earlier. Overall, Yi Sen and I were new to HTML and CSS. Despite learning JavaScript in FIT2101 in the year before, we were frankly not fluent with it. Therefore, we had to look up and learn about the language prior to developing our software. Regardless, we managed to make it work. We faced a lot of issues when designing the front-end user interface, but with the power of Google, we were able to solve all of the problems, despite consuming a lot of time on the problems, which may be easy to experienced HTML programmers.

## **6 Project Management and Team Issues**

There was a problem with the project management methodology. Essentially, during our interim presentation, we had presented to the tutors that our team had chosen to implement a hybrid approach of both the Waterfall and Agile approach. It was then when Miss Kamala corrected us, stating that we did not have an Agile approach. This was because the requirements of our project had already been set. Our team thought that Sprint meetings was the Agile part. However, Miss Kamala was able to correct us, stating that we were just a Waterfall approach with multiple meetings. It was through this, was I able to properly distinguish between a Waterfall and Agile approach.

## **7 Comments Relating to Individual Team Members**

In terms of the team, I believe that the random selection of teammates for a final year project is very interesting, challenging, and risky. This is because for a final year project that would be ideally put into my resume, its outcome is largely dependent on the quality of work produced by my teammates, which are chosen at random. I believe that the competitiveness and passion of the people in a team has to be good in order to produce a good product. Therefore, splitting the workload of a project by 25% to 3 other members who I do not know if are as passionate about a project, is extremely risky. It is even more challenging to ensure that all requirements are satisfied as a whole. If not, the team members who are competitive and who care about the outcome of the project, and their grades, would have to cover and contribute more for the team. With that being said, I will always be grateful for the experience that I have gotten in this final year project with these team members. Without them, our final year project would not have been possible. It was a pleasure to work with them. Regardless of what has happened in the past 12 weeks, I have been able to learn and grow so much because of them.