Module number: CS3099
Matriculation number: 200017941

# Individual Report

Each week we had a scheduled meeting where we discussed about the project. Since we decided to follow a 2-week sprint cycle, on the first week of the sprint the meeting would be centred around starting the new sprint where we would have a discussion on what user stories to take from the product backlog and add to the new sprint. During these meetings, each member of the group is assigned a task. How this generally works is we divide each user story into smaller tasks and these are added to the sprint backlog. Each of these tasks are basically programming tasks and are split into three different categories: front-end, back-end and database. Furthermore, each member is assigned one of three roles: front-end developer, back-end developer and database. And depending on our role a programming task is assigned from the sprint backlog. The way this plays out is we would have one person read the sprint backlog task by task. And each time someone is interested in doing the said task then they are assigned that task. Then the end each person is assigned with a set of tasks to complete before the end of the current sprint. We also made sure that the tasks were split between each member as evenly as possible. All of this is done through Jira which is the software we used for managing our scrum meetings as it keeps track of each persons roles and progress on assigned tasks.

Since I am one of two members with the role of back-end developer, the tasks I took were back-end related. During the first semester I mainly focused on implementing the registration pages, making sure users are authenticated correctly and that their login is being persisted. Then during the second semester I implemented the comment section so that each user is able to add and edit their own comments under the puzzle board page. SO three different functionalities had to be implemented here. The first functionality is that all the comments that have previously been added need to be fetched and displayed in the order in which they were submitted upon entering the puzzle board page initially. The second functionality is that each user can add a comment which displays their name and the comment itself at the end of the all the existing comments. The third functionality is that each user can edit their comment and for this to change the text of their initial comment. The other implementation I contributed to is the user profile. I had to make sure that each user is able to access their account information such as their user name and email as well as their statistics. The statistics we decided on including are the user's rank, number of puzzles solved and the list of the name of the solved puzzles. Lastly, I contributed to the points system by making sure that each puzzle that is solved is registered and the points of associated to the puzzle is added to the user's total points. When it comes to my contributions to the group report, I wrote parts of the implemented functionality, parts of the evaluation section and the back-end testing section.

As I was working on my implementation, there were several issues that I came across and found challenging to resolve. For the most part the user profile and points system was relatively straightforward to implement, but the comment section was causing me the most difficulty. I was struggling to manage functionality to get all the previous comments and display them in the right order. I made use of ChatGPT here to help correct my code.

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When it came to organising my work I did not have any particular way in which I managed it. In fact I found it hard to organise it because the workload was a lot at times with other responsibilities from other modules. But when I was working on my parts of the implementation, I first made sure I initially had a skeleton code with the necessary functions for whatever feature or functionality I was implementing. Then I worked on setting up the API files wherever I thought was necessary. Following this I added the necessary logic in the page files so that it interacts with the APIs as well as the JSX code, and that the information obtained from the database is processed correctly.

Throughout the whole development process, there were things that went well and also things that didn't. individually and as a group. Individually, I found it hard to manage my time as mentioned above which resulted in a lot of the work being pushed towards the end and me having the spend entire days in the labs. Despite this I have managed to completely implement everything that I was assigned through all the sprints. As a group, we struggled to constantly communicated with each other and maintain full transparency regarding our implementation. We also found it hard to follow the Scrum methodology a lot of the time. Additionally, a lot of the times we ended up overloading the sprint backlog resulting in the tasks being carried onto following sprints. However, during the second semester we have gotten better at communicating and having meetings more often to maintain transparency. I would also say that we have also worked well as a group due to every member being cooperative. If I could do things differently, I would have spent more time at the beginning properly learning Next.js and React.js we decided to use because at time I had to spend quite some time trying to make fixes which would have been a lot easier if I had a good enough understanding of them. Though this is mainly in the first semester as I have managed to have a proper grasp of it.