Reflective practice

I. Overall project performance

A. Team 7 project performance

BY the beginning of the second term, the project had completed 14 out of 28 functional requirements and was in good standing. Testing included conducting six unit tests, system tests, and user acceptance tests, resulting in an overall passing rate of 72.2%. The unit tests had a passing rate of 50%, while system tests had a passing rate of 66.7%, and user acceptance tests had a perfect passing rate of 100%.

The team was able to create the initial demo version of the website using the Figma platform, providing a first look at the product. However, some major functions, such as natural language processing, a recommender system, and the database, had not been implemented due to limited technical knowledge. The team spent the entire holiday period learning the necessary skills and planned to implement them during the second term. Additionally, due to the unavailability of the Watson system, the project was unable to connect with it, and the issue was reported to the stakeholders. The team was prepared to proceed with the project without Watson's support at this stage.

B. Team 9 project performance

The objective of Team 9's project is to use Unity to develop a top-down video game in the style of the classic 80s game, Paradroid. The game will involve players navigating through a spaceship and battling enemies by answering questions related to various categories such as AI, Data Science, Cybersecurity, Cloud and Quantum Computing. The game will feature a timer, and players will aim to defeat the final boss before the timer expires while also testing and consolidating their knowledge of the aforementioned categories.

By the end of the second term, Team 9 successfully implemented the major functional requirements and passed all test cases. The team made significant improvements from the beginning of the term when they were only able to pass 3 test cases and complete 4 functional requirements. While the project has a complete demo version that provided stakeholders with a preview of the game, it is still far from being a complete product. For example, there is only one level, but stakeholders require multiple levels. The animations are unfinished, and the ending game scenes are incomplete. The team plans to complete this work during the holiday period and hand over the final product at the beginning of the third term.

II. Teams performance

A. Team 7 performance

Team 7 did not have a project manager for the first two weeks, but the team managed quite well. For instance, they met with stakeholders to discuss the project scope, encouraged team members to have in-person meetings, and kept detailed notes of every meeting. However, some risks were identified during the meeting. Firstly, the team lacked a clear understanding of the requirements due to the unclear project scope. Additionally, they struggled to focus on one topic and complete it, resulting in unproductive meetings that took a lot of time. To solve this issue, I introduced the user story, which uses a sentence to highlight the user requirement and then consider how to achieve it. And I also introduced the workflow and IBM design thinking process, as shown in Figure 1, 2 and 3. The team has been making steady progress in each meeting and has become more productive. I noticed that the team was not familiar with Agile working methods, so I introduced a 15-minute stand-up meeting twice a week, along with a 5-minute closing report at the end of the Thursday meeting. During the stand-up meeting, each team member will provide a summary of their progress over the past two days, discuss any challenges they have faced, and outline their plans for the future. During the closing report stage, the project manager will summarize the objectives of the meeting and assign tasks to each team member. I also introduced the agile platform Taiga and help them with the initial set-up, which has been widely used throughout the company. By implementing this approach, the team has been able to improve communication and increase efficiency. Overall, the team is performing well, and actively engaging with one another in a friendly manner. However, two members are not receptive to advise and are not collaborating with the rest of the team.

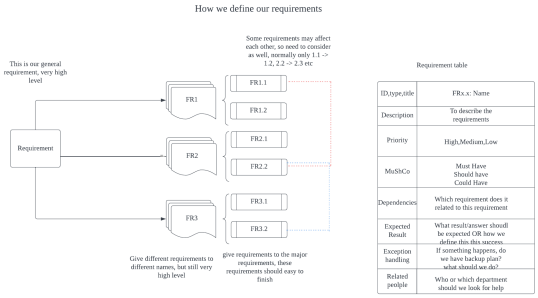

Fig. 1: How to define requirement

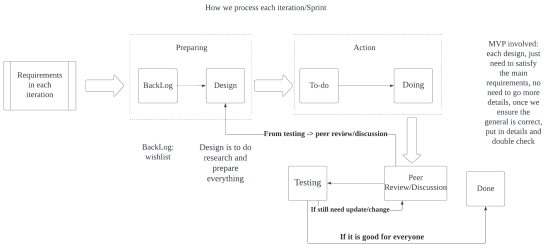

Fig. 2: Workflow

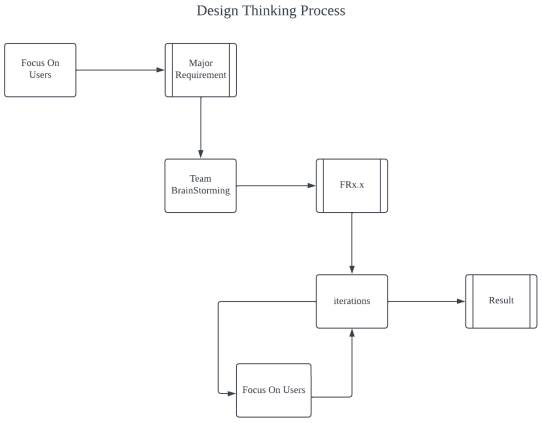

Fig. 3: Design Thinking Process

B. Team 9 performance

When I took over Team 9, they were still in the preparation stage and had not yet started building the project. The team faced two major issues: firstly, they had a lot of incoming coursework, which made it challenging for them to balance their time between coursework and the project. Secondly, the project required the use of Unity, a game engine that the team was still learning to use.

Upon recognizing these issues, I realized that the team was at high risk of not being able to complete the project on time. I reviewed the project workflow and found that the team was not working in an Agile way and did not have a specific workflow in place. However, it was too late to introduce a new workflow at that point.

Instead, I began by asking the team about the major functions that needed to be implemented and the technical knowledge required. I also asked them to estimate the time it would take to complete each requirement. Doing this, helped the team to understand what they were capable of achieving and estimate the time they could spend on each task, which allowed them to better understand their position within the project.

The team is highly active and passionate about their work, demonstrating strong programming skills and a willingness to learn. They encourage in-person attendance at meetings and have implemented stand-up meetings twice a week. However, the team underestimates tasks and overestimates their capacity to complete work. To address this issue, I introduced a 5-minute closing report at the end of each meeting, during which I asked the team members what they could accomplish before the next meeting and what tasks they were planning to work on during the upcoming week. This approach helped the team better understand the time required for each task and allowed them to stay on track and make progress towards completing the project.

III. Project manager performance

A. Team 7

In the first two meetings, I introduced the team to the Agile methodology, workflow, and Design Thinking process. My main objective was to provide the team with real-life software engineering experience, and I was pleased to see

that they were quick learners and receptive to my guidance. By the end of the first term, I had set up everything they needed, including the Agile platform Taiga, detailed explanations, and examples. I also provided a general description of the team working and Agile workflow to the next project manager to ensure that work could continue seamlessly.

However, I received feedback that I was too strict with the team, and some members felt uncomfortable. In response, I decided to take a more relaxed approach with the team in the future, guiding them when necessary but allowing more space for them to learn and grow independently.

B. Team 9

Based on the feedback I received from the last team, I decided to change my approach to the current team. Instead of being too strict during meetings, I resolved to only take action when necessary, such as when the team is going in the wrong direction or when I need clarification on a project point. I also noticed that the team tended to underestimate tasks and overestimate their capacity to complete work, so I introduced a 5-minute closing report at the end of each meeting to help the team members better manage their time and speed up their progress on the project. By adopting these changes, the team can work more productively and still keep the team's features.

IV. Challenges

A. Challenges in Team 7

The first challenge I encountered was the team's low productivity in discussions. They tended to jump from one question to another without focusing on and finishing one task. This led to meetings where no questions were solved. To address this issue, I introduced a workload and informed the team that we needed to finish one task before moving on to another. If any good ideas came up, I suggested they be noted for future discussion. This approach helped the team to have better and more productive discussions.

The second challenge was that it was difficult to meet with stakeholders regularly. To overcome this, I suggested using the MVP principle, which involved building an early product and then developing it based on feedback. This approach allowed us to keep the stakeholders involved in the project even if we could not meet with them regularly.

The third challenge was that some team members were not engaged during meetings, which was challenging for me to address directly. My best solution was to focus on the team's overall productivity and not intervene unless their work was significantly impacted. This would not be the best way to

B. Challenges in Team 9

The first challenge faced by Team 9 was that the project had been delayed due to several reasons. To tackle this issue, I first discussed the general plan for the next few weeks with the team to ensure they were aware of our current position, what needed to be prioritized, and what each team member's responsibilities were for the upcoming days.

The second challenge was that the team tended to underestimate tasks and overestimate their capacity to complete work, resulting in unfulfilled promises of finishing tasks quickly. To address this, I suggested having extra catch-up meetings to organize their work better and introduced a closing report at the end of each meeting, outlining the expectations for the next meeting. These changes helped to improve the team's productivity and enabled them to finish the demo by the end of the second term.

The final challenge was that the team seemed to lack a proper project manager in the first term, which led to an absence of a proper workflow. As it was too late to introduce new things, I adjusted the team's approach and gradually guided them in the right direction.