

# Method Selection & Planning

*Group 3*  
*Assessment 1*

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## Methodology & Tools

For this project, we shall be using the SCRUM methodology. The reason we chose this methodology was that it takes a short amount of time to complete the project, with a small number of people in the development team. The key is the customer's needs and this SCRUM enables us to adapt quickly to changes in requirements, and updating the customer on our current progress to provide a more satisfactory end product. Additionally, since the project development would happen over Term 1 and Term 2, resulting in a change of timetable, SCRUM allowed for the extra flexibility. Scrum is an agile methodology based on iterative sprints (short periods of time where we'd work on a set number of features). Each week, we would have a sprint and during the weekly meetings, we discuss our implementation and new goals for the next sprint. This made sure we kept on track of the core features and understood what features each member (those working on the implementation) would implement along with whether there were any problems during the previous sprint.

We used GitHub to host the project and Git for version control. These applications work hand in hand with Git allowing us to push project files to the online repository. This allowed those coding the project to remotely update the project and to revert changes / look back on previous versions if needed. Furthermore, using our chosen methodology was made very simple since we could all push and merge our respective implementations and organise required tasks using the GitHub Projects page.

Our team used a range of IDEs which included:

- Eclipse
- IntelliJ
- VSCode

Overall, we picked LibGDX as the development framework for the game. This is due to it being reliable with many resources available, use of Java which many members were familiar with and it was suitable for 2D games which we planned to make. To collaborate, we used Discord, an online instant-messaging program. This helped us communicate, organise and have meetings remotely. We initially chose WhatsApp but made the switch as we realised that Discord would provide a better experience for the team due to its file sharing features and how it's primarily used on PCs, Laptops and Mobile Phones while the majority of users only use the mobile version of WhatsApp.

For our website, we used GitHub Pages to host the site as well as using its domain name. This seemed like the most appropriate option since we could easily link our implementation and other documents using the GitHub repository. To store and collaborate on deliverables and any additional documents we used Google Drive and Doc. This allowed all of us to work on the documents simultaneously and at any time.

## Team Organisation

We have assigned different roles amongst the team members. We would arrange meetings twice a week on Mondays and Wednesdays. During these meetings, we would check the progress of each member's assigned task to make sure they were on track, and then when the task is completed, assign new tasks for the next prototype. We decided twice a week as we already had a set time to meet on Wednesday, however if any problems arose after, we could meet again on Monday and understand what will need to be done before the next Wednesday meeting.

If members weren't available for the meeting, we would relay information through our Discord group chat. We would also upload a brief summary of the meeting with tasks assigned. Additionally, during the implementation, we would often upload screenshots and discuss aspects of the features we were implementing. This is so all members of the team are up-to-date, whether they are present or not and can provide instant feedback if needed, as well as, allowing people to have something to look back to.

Our group chat was organised into chats for meetings, documents, images, websites, and general. We separated roles into implementation and documentation. For the most part, all of us worked on the implementation. This helped the project as all members of the team could give insight on what works, what doesn't and what needs changing, leading to a better understanding of the task as a team and a better product in the end.

## Planning

The plan evolved as people grasped the requirements of the project and as the project went on. Firstly, we had to plan out the roles people were given and what was needed earlier in the process. We outlined what everyone was doing from their strengths and weaknesses. Some team members had never created a game before and were unfamiliar with LibGDX, others were good at documentation and web development. Inevitably, everyone had an assigned strength that they were contributing in the making of this project.

An early task that needed to be completed was the meeting with our customer. This would help in narrowing down what was needed for the project. This took place on the 22nd of November and we decided to send 3 members of the team to this meeting as the task did not require a full audience present and only a few people to listen and note down their desires.

Next, we all contributed to the Risk Assessment in the two meetings on the 23rd & 28th of November. Due to the upcoming winter break, we set specific tasks that needed to be done and that we would begin the implementation stage and work on the Architecture and Method Selection & Planning documents. Each member of the team had an assigned task and we would meet once a week regularly, throughout December and early January, to provide our progress with one another.

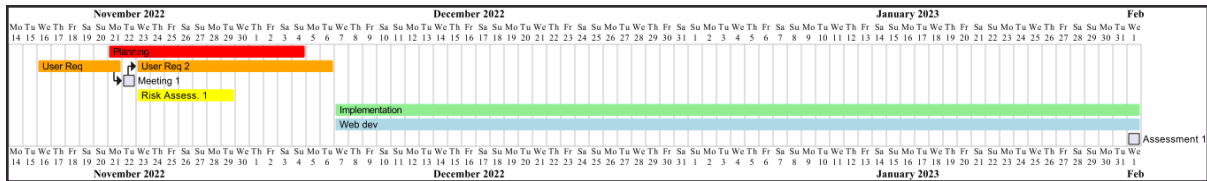
After the break, we had meetings on the 16th & 18th of January to recap what we needed to do. Our plan had to evolve as certain features, such as the leaderboard and food stations, needed extra work before completion and documents needed finalising. This led to members working on specific parts of the project and allowed us to stay focused on what needed to be done.

In the weeks of the 23rd & 30th of January, we completed these tasks and focused on last minute adjustments such as replacing any temporary assets and finalising the commenting of our code. To be safe, we increased the number of meetings we had which ensured we included everything from our brief and could bring up any issues easily with each other present.

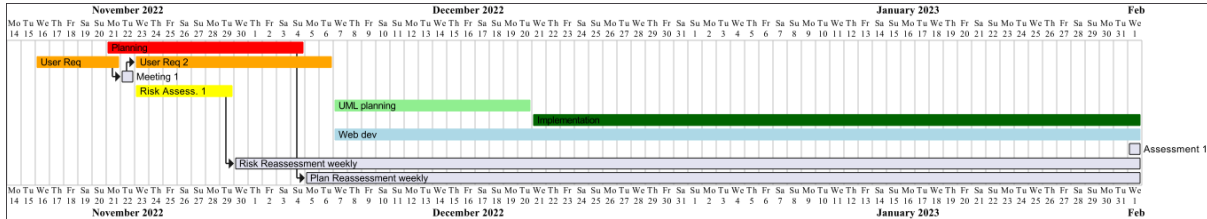
# Method Selection & Planning - Group 3

Below find the following gantt charts:

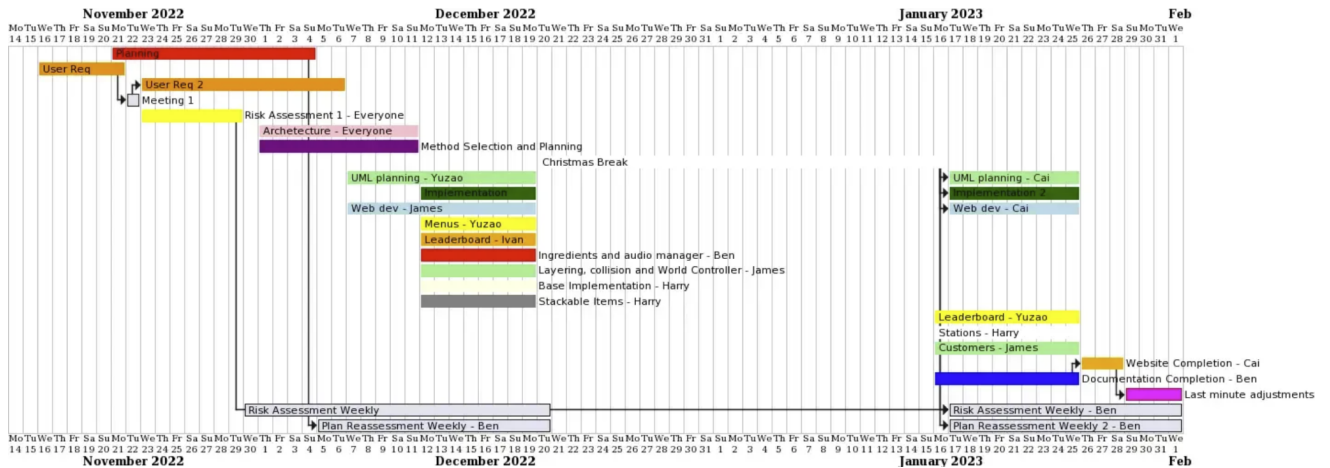
Initial gantt chart - 21/11/2022



Second gantt chart - 3/12/2022



Third gantt chart 19/01/2023



Final gantt chart - What happened 31/02/2023

