METHOD SELECTION AND PLANNING

ENG12020TEAM24

Daniel Allinson
Pratham Bhat
Eghosasere Ewansiha-Vlachavas
Tara Harley
Mahir Rahman
Kyle Wilson

Method Selection and Planning

For this project we will be using an agile software development methodology, specifically SCRUM. We decided to go with an agile methodology (SCRUM) because of its adaptability, customer involvement, focus on teamwork and time. We have been made aware by our client that the requirements for this project are not set in stone and could possibly change. Using a SCRUM agile methodology allows us to keep the client involved throughout the whole process meaning we take in any changes to the project quickly and thanks to the nature of agile, adapt to incorporate them right away. SCRUM also allows us to be more team oriented and to break the project down into smaller tasks (sprints) which can be assigned to various team members and tackled weekly.

To collaborate and communicate as a team we use a number of tools and programs. For our weekly team meeting we use Discord, where we can discuss the work done in the previous sprint and also plan for the next one. Discord also allows us to share files so sending each other documents to support our discussions is also possible. We also have text channels on Discord, one for each section of our project, where we can discuss the particular sections outside our weekly team meeting. For our weekly customer meeting however we use Zoom as it is our client's preferred platform of communication. Google Drive is a tool we use for working on our documentation as a team. It allows us to share documents amongst ourselves but also for team members to simultaneously work together on them. We use GitHub and Git to share code and to foster collaborative work and for ease of reviewing one another's code before accepting it as correct.

<u>Team Organisation</u>

The approach to the team organisation that we implemented was a discussion based approach; we would talk together in a meeting and decide together who was allocated which tasks. This "engage and create" style of approach allows us to choose which tasks we wish to do, and allows for members to engage in tasks they have more interest in. This approach also allows for everyone to be delegated a task in a discussion rather than a single leader doing so. This method also encourages members to engage with each other more, and can push towards stronger team unity and understanding; resulting in accountability and allowing for increased productivity.
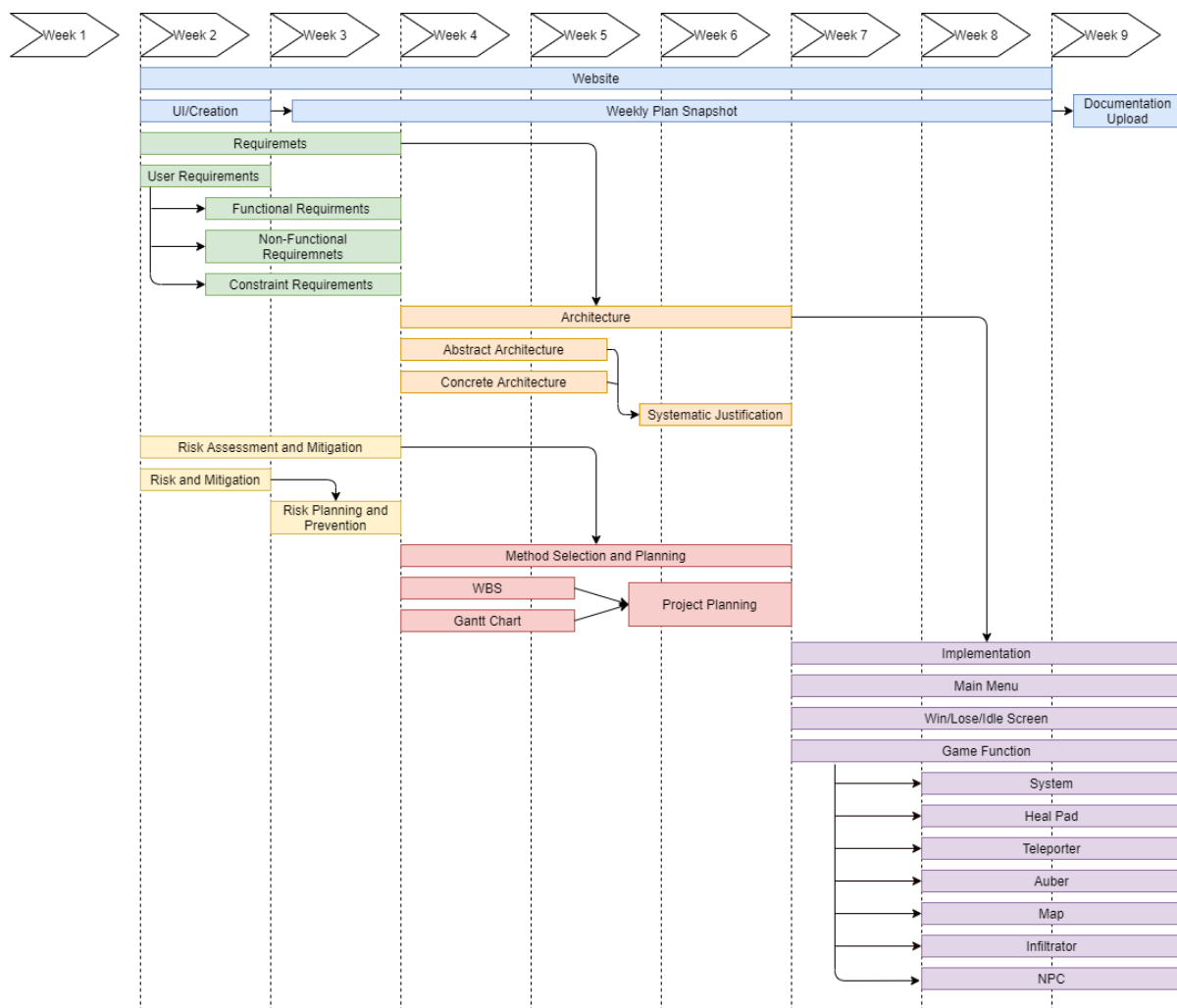
Project Plan
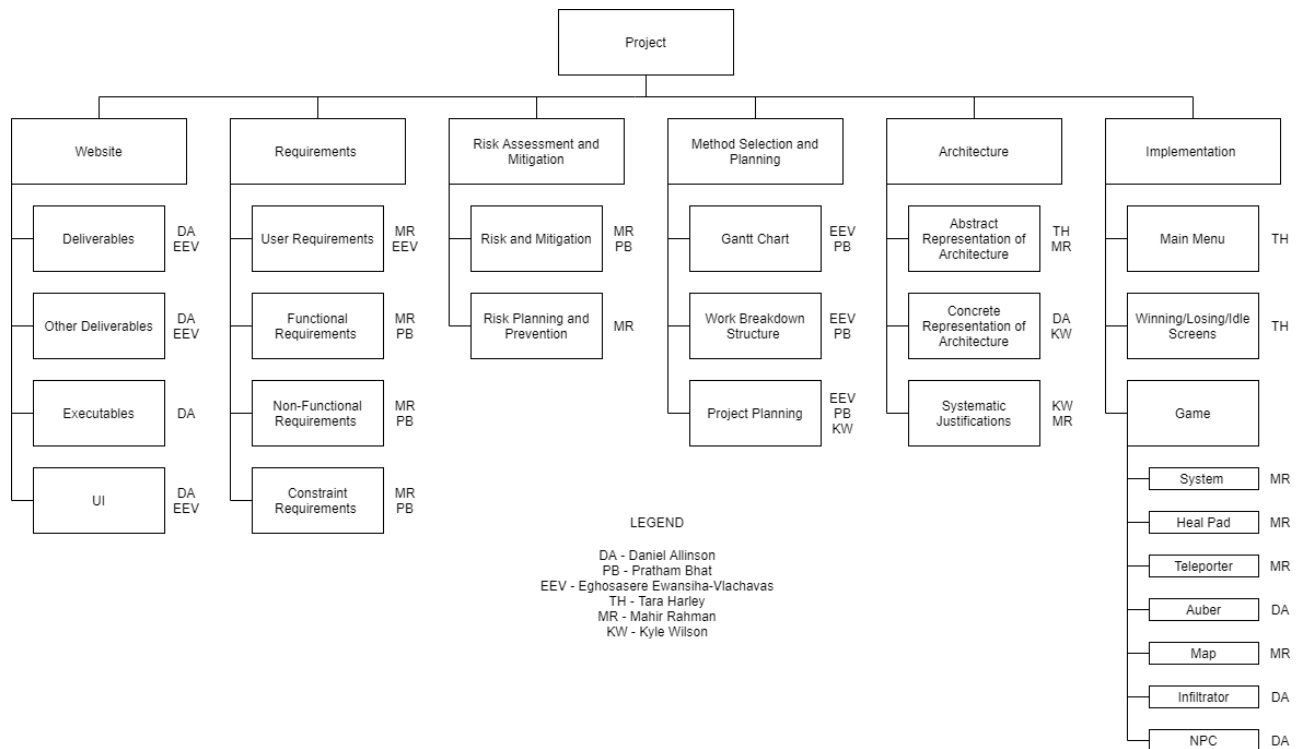
WBS

The project is broken into sections which correspond with the deliverables of the assessment. This is illustrated by our Work Breakdown Structure (WBS). Before we begin with the assessment deliverables illustrated in WBS, it was essential that we first establish methods of communication with team members and also our client. Once that was setup we then created a shared drive for us to collaborate on work as a team while also giving us an area to share documents with each other and the module leaders.

In the first week of our project, as well as setting up the above, we created a GitHub to store our game and website code. We then created a Gantt Chart, planning out the completion of the project. We decided to have it measure the completion of work on a weekly basis instead of having a certain task due on a certain day. A particular task may be completed on any day of the week it is due (or in the weeks it is running). This is done so a team member is able to complete or contribute to a section whenever it is most convenient for them as we all have different schedules.

Our task dependencies are illustrated by arrows on our gantt chart. Where one task is dependent on another if it has an arrow leading to it. The start and completion date of the task may vary depending on when module material is released as we will need time to look over it and learn before implementation but the following is our initial plan.

Our plan is to start the Website, Requirements, and Risk Assessment & Mitigation at the beginning of Week 2. We should have the website setup by the end of Week 2 and update it weekly the necessary information. Week 3 will continue on with the Requirements and Risk Assessment & Mitigation sections with the aim to complete them by the end of Week 3. Architecture and Method Selection & Planning cannot start until Week 4 as they are dependent on previous tasks. These tasks will be active until the end of Week 6 when they are due to be completed. In Week 7 we will then begin our implementation which will last to then end of the project (Week 9). In the final weeks we will also update the website with the documentation and game, and also complete our group self-assessment.

Gantt chart

Over the course of this project our plan has had to change to adapt to issues we encountered. This can be seen in the weekly plan update section of our website. The issue we had was with time management. It took us longer than expected to complete the 'Requirements' and 'Risk Assessment and Mitigation' sections. To account for this we had to extend the completion time for these by a week. This meant that the 'Architecture' and 'Method Selection and Planning' sections were started with less team members allocated to them than planned. This is because we had half the team finishing the outstanding tasks from before while the rest of the team started the new sections. Because of section dependencies we could not fully complete the 'Architecture' and 'Method Selection and Planning' sections until the previous two had been completed. This meant that the 'Architecture' and 'Method Selection and Planning' sections had to also be extended by a week to give us time to complete them. In week 8 we realised that not all team members were required for the 'Implementation' section. As a result we changed our plan to add a 'Document check' section which starts in week 8 and ends in week 9. This section consists of checking previous sections for errors and trying to maximise marks. It also includes preparing the documents for submission so making sure they are named correctly and in the right format. The most up to date gantt chart can be found on our website under the week 9 update.