Module	ENG1
Year	20/21
Team	33 (Short Circuits)
Members	Jack Lord, Neo Metcalfe, Sam Rodgers, Mohammad Abdullah, Qi Tang
Deliverable	Method Selection and Planning

As a team, we decided to take an Agile approach in creating Auber. This approach allowed us to be more co-operative as a team, whilst also allowing us to adapt to any unforeseen changes within the software engineering project. Adaptability was a large concern for our team, and something we had to consider early into the project, as we would be working closely with the customer and communicating with them in customer meetings. Within these meetings, discussions were made about how our game, Auber, should function. Some of the functionalities that the customer discussed with us were ones that we hadn't considered within our original planning, which meant that we had to adapt our software to meet the customer's expectations. Working with an Agile methodology allowed us to reflect, as a team, on the current software we had, and the improvements and changes we could make to fit the customer's expectations. Co-operation was something we also had to consider when choosing a methodology to engineer with since we were a small team, consisting of 5 members. This meant that we had to entrust each member of the team with specific roles and responsibilities within the project, whilst also motivating each other to complete their task(s) before our weekly meetings.
We implemented an Agile approach by utilising a basic scrum methodology. This methodology consisted of week-long sprints in which all team members were assigned specific tasks to complete or work on. Performance, progress, accomplishments, problems and risks were then discussed during our weekly meetings, which allowed for us to reflect on the difficulties each team member encountered, and allowed for other team members to provide solutions to these difficulties. Since all members of our team had different strengths and weaknesses, this approach allowed us all to focus on our individual tasks, yet consistently receiving input from all members of the team.

Collectively, we decided to use a project tracking tool known as Jira. Jira is a project managing tool that focuses on agile software engineering methodologies. This project managing tool was very useful for our team members since it allowed us to easily to organise and lay out the tasks that had to be completed for the project, whilst also allowing us to display which issues were in progress, and ones that had been completed. An alternative planning tool that we had considered was trello. This tool is very similar to Jira, and is in fact owned by the same software company known as Atlassian. Trello has the same tools on offer as Jira, especially with the tools that we required for our project, however, our team had experience with using Jira, which swayed our decision to use it over Trello.

Another tool that our team decided to use was github. This is a free software development platform which focuses on collaboration and version control. This was important for our team, in the current environment, as all of our team members had to work from home. Github allowed for us to all access and edit the most up to date version of Auber. We chose this platform not only because of the ability to collaborate on Auber, but also because github allows for easy, free and reliable website hosting, which was one of the requirements of the assessment. Moreover, a reliable website hosting site was optimal for our team as this would seem more likely to be successful when pitching our game and project to other teams.

The last tools that we agreed upon were Google Drive and Zoom. Our team utilised Google Drive to allow for all the non-coding aspects of our project to be shared and collaborated on consistently within our team. The deliverables, resources, graphics and project management documents were all stored within a google drive dedicated to our team, and allowed for us all to easily access and modify them. Since we were unable to partake in in-person meetings, we had to utilise a free tool for online meetings. The tools that we had discussed were Discord, Zoom, and Google Meets. All of our team members were experienced with these tools, and they all offered similar experiences, however our team decided that we would use Zoom for our online meetings, as this was the service that the university has scheduled for us to use for the weekly meetings on Thursdays. This meant that all our members had downloaded Zoom, and knew how to use it, so all non-weekly meetings that we had proposed to use as a team were done using Zoom.

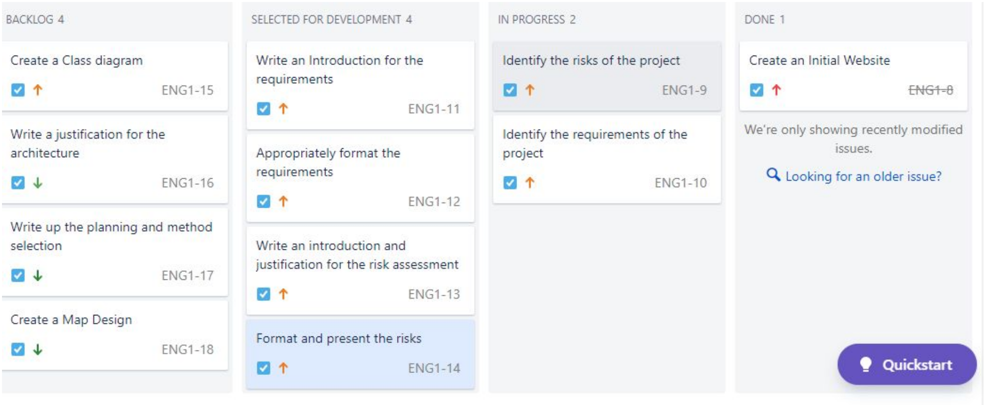
As a team, we divided the project into certain roles and responsibilities to maximise everyone's strengths. One member was responsible for leading the team, planning and organising everyone's roles. This role was important because it enforced and encouraged everyone to do their specific tasks. One member was responsible for the implementation and coding of the game Auber, however every member of the team worked closely with that member to make sure that certain expectations were met. These members that worked closely were assigned roles of managing the architecture, the requirements and the overall look/feel of the game. The member responsible for the architecture had to ensure that the classes within the game were functional and followed the plan that we had created in our original planning. The member responsible for the requirements made sure that the code for Auber met the needs that were expected from the assignment, and by the customer, as discussed in the team-customer meetings. The final member, who was responsible for the overall design of the game was responsible for creating the graphics, and the map designs. This was important for our team project as we wanted the game to have a good player experience, and so that it seemed appealing to the applicants on university open days.

This approach towards the implementation and coding of Auber was optimal for us, since our team size was small, as it maintained consistency within the code, whilst also receiving big assistance and input from every member of the team. Moreover, this approach was assisted through the use of github, as each member of the team could access the code whenever necessary and modify it where necessary.

Project Plan

As a team, we created a plan in week 3 of our project. This plan consists of 4 columns, these are: Backlog, Selected for Development, In Progress and Done. The ‘Backlog’ column is for every task that has to be completed for the project but has not yet been started. The ‘Selected for Development’ column is for all tasks that have been started by either an individual member of the team, or a few working together. The ‘In Progress’ column is for all tasks that have been developed by a member of the team, and is currently being reflected on and improved by all members of the team. The final column is ‘Done’, which is useful for showing which tasks have been finalised. Furthermore, the plan we have created contains priorities for each task, these are signified by the coloured arrow in the bottom left corner of the specific issue. A green arrow indicates low priority tasks, while the orange arrow indicates a medium priority and a red arrow indicates a high one. At the start of the project, we put all the deliverables within the assessment document as a task to be completed within the backlog column, this allowed for us to easily see everything that we had to complete as a team.

Week 3



BACKLOG 4

Create a Class diagram
☑ ↑ ENG1-15

Write a justification for the architecture
☑ ↓ ENG1-16

Write up the planning and method selection
☑ ↓ ENG1-17

Create a Map Design
☑ ↓ ENG1-18

SELECTED FOR DEVELOPMENT 4

Write an Introduction for the requirements
☑ ↑ ENG1-11

Appropriately format the requirements
☑ ↑ ENG1-12

Write an introduction and justification for the risk assessment
☑ ↑ ENG1-13

Format and present the risks
☑ ↑ ENG1-14

IN PROGRESS 2

Identify the risks of the project
☑ ↑ ENG1-9

Identify the requirements of the project
☑ ↑ ENG1-10

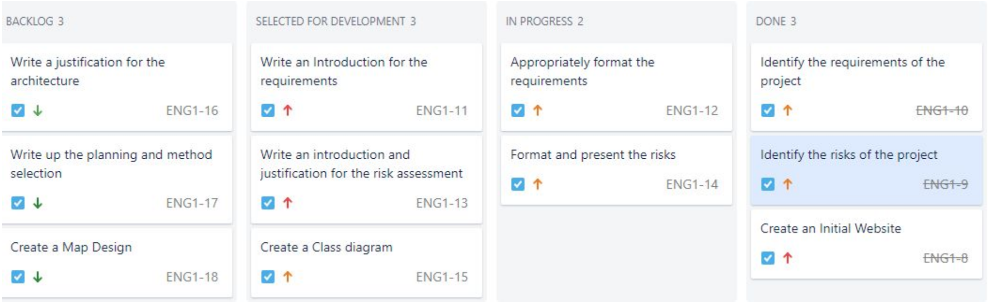
DONE 1

Create an Initial Website
☑ ↑ ~~ENG1-8~~

We're only showing recently modified issues.

Looking for an older issue?

Week 4



BACKLOG 3

Write a justification for the architecture
☑ ↓ ENG1-16

Write up the planning and method selection
☑ ↓ ENG1-17

Create a Map Design
☑ ↓ ENG1-18

SELECTED FOR DEVELOPMENT 3

Write an Introduction for the requirements
☑ ↑ ENG1-11

Write an introduction and justification for the risk assessment
☑ ↑ ENG1-13

Create a Class diagram
☑ ↑ ENG1-15

IN PROGRESS 2

Appropriately format the requirements
☑ ↑ ENG1-12

Format and present the risks
☑ ↑ ENG1-14

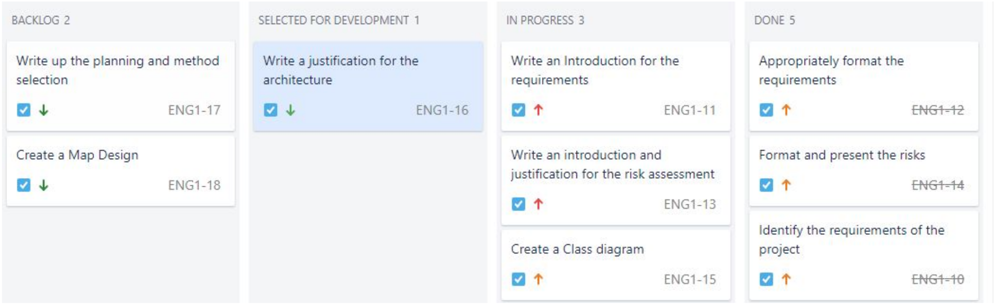
DONE 3

Identify the requirements of the project
☑ ↑ ~~ENG1-10~~

Identify the risks of the project
☑ ↑ ~~ENG1-9~~

Create an Initial Website
☑ ↑ ~~ENG1-8~~

Week 5



BACKLOG 2

Write up the planning and method selection
☑ ↓ ENG1-17

Create a Map Design
☑ ↓ ENG1-18

SELECTED FOR DEVELOPMENT 1

Write a justification for the architecture
☑ ↓ ENG1-16

IN PROGRESS 3

Write an Introduction for the requirements
☑ ↑ ENG1-11

Write an introduction and justification for the risk assessment
☑ ↑ ENG1-13

Create a Class diagram
☑ ↑ ENG1-15

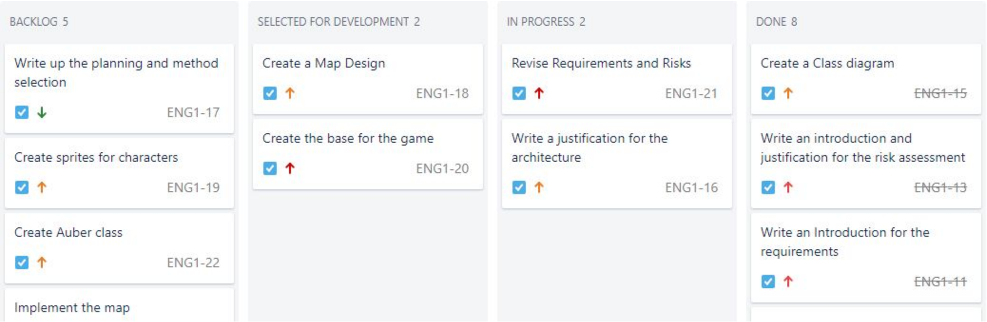
DONE 5

Appropriately format the requirements
☑ ↑ ~~ENG1-12~~

Format and present the risks
☑ ↑ ~~ENG1-14~~

Identify the requirements of the project
☑ ↑ ~~ENG1-10~~

Week 6



BACKLOG 5

Write up the planning and method selection
☑ ↓ ENG1-17

Create sprites for characters
☑ ↑ ENG1-19

Create Auber class
☑ ↑ ENG1-22

Implement the map

SELECTED FOR DEVELOPMENT 2

Create a Map Design
☑ ↑ ENG1-18

Create the base for the game
☑ ↑ ENG1-20

IN PROGRESS 2

Revise Requirements and Risks
☑ ↑ ENG1-21

Write a justification for the architecture
☑ ↑ ENG1-16

DONE 8

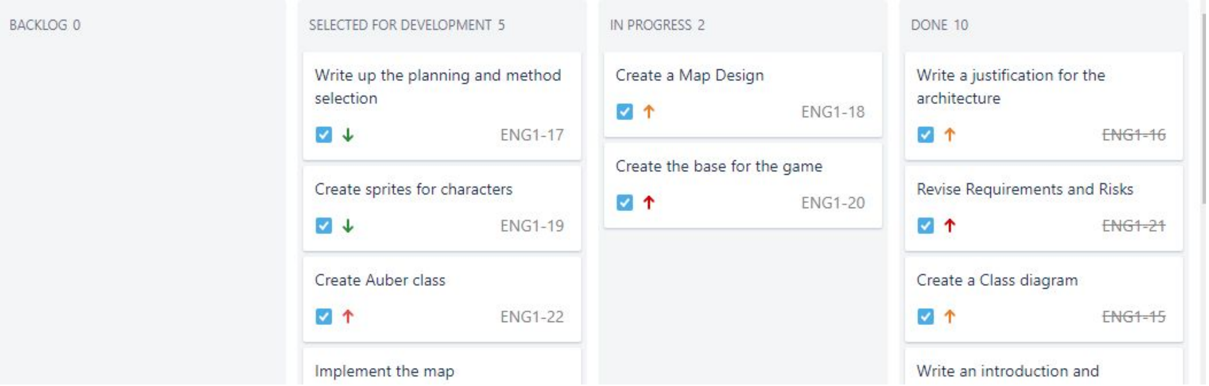
Create a Class diagram
☑ ↑ ~~ENG1-15~~

Write an introduction and justification for the risk assessment
☑ ↑ ~~ENG1-13~~

Write an Introduction for the requirements
☑ ↑ ~~ENG1-11~~

In week 6, we had to create some more issues, this is because we had recently had a team customer meeting, and subsequently had to modify some of the requirements and risks that we had originally planned and set out.

Week 7



BACKLOG 0

SELECTED FOR DEVELOPMENT 5

Write up the planning and method selection
☑ ↓ ENG1-17

Create sprites for characters
☑ ↓ ENG1-19

Create Auber class
☑ ↑ ENG1-22

Implement the map

IN PROGRESS 2

Create a Map Design
☑ ↑ ENG1-18

Create the base for the game
☑ ↑ ENG1-20

DONE 10

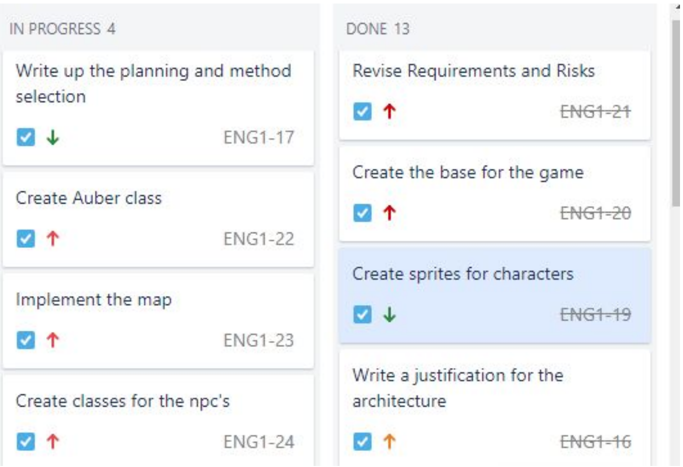
Write a justification for the architecture
☑ ↑ ~~ENG1-16~~

Revise Requirements and Risks
☑ ↑ ~~ENG1-21~~

Create a Class diagram
☑ ↑ ~~ENG1-15~~

Write an introduction and

Week 8



IN PROGRESS 4

Write up the planning and method selection
☑ ↓ ENG1-17

Create Auber class
☑ ↑ ENG1-22

Implement the map
☑ ↑ ENG1-23

Create classes for the npc's
☑ ↑ ENG1-24

DONE 13

Revise Requirements and Risks
☑ ↑ ~~ENG1-21~~

Create the base for the game
☑ ↑ ~~ENG1-20~~

Create sprites for characters
☑ ↓ ~~ENG1-19~~

Write a justification for the architecture
☑ ↑ ~~ENG1-16~~

Our plan in week 8 changed a small amount since we were nearing the submission deadline of the project. This meant that most of our project has been completed, and it was simply time for us to finalise everything and ensure that it was all up to a good standard.