**REQUIREMENTS**

ENG1 Team 16

**Purpose**

The project is to design a game where there are several colleges around a lake where the only way of transport is by ships. The User is a privateer for one of the colleges where you travel around the map encountering other ships trying to defeat them and their colleges. The objective for this game is for the User to defeat the boss college in the game or accumulate enough points.

We will gather requirements through the analysis of the briefing document and multiple meetings with the customer to discuss the game requirements, following from these conversations with any extra questions over email. The requirements will be split into two main sections User requirements and system requirements. Each User requirement will have a unique ID, A description about the requirement so the client can understand and finally the priority of each requirement to show its importance. The system requirements are broken down into two further sections: functional system requirement with a unique ID and description the same as user requirement but also which user requirement it links to. The second section is non-system functional requirements which has the same columns but an additional one criteria with an acceptable range for the requirement.

**Audience**

As shown in the project brief the audience will be students who are looking to join the University of York computer science department and the game to be played on open days. The game shows the ability of current computer science students and the sort of activities that prospective students will do throughout the course. The product should be easy to use with an object that is obtainable in 5-10 minutes.

**Stakeholders**

**Direct**

* The Customer (Tommy Yuan) who gave us the design brief which we got the first requirements from. He is the person we check in with during our meetings and discuss the project requirements with to convince of the validity of your assumptions and decisions.
* The University of York Communications Office who will use our product during open days so the game play must be appropriate for all age-ranges.
* Open day-Users the people who will play the game at the open day so the product must be easy to understand how to use.

**Indirect**

* The university product will be displayed at an official university open day so we are representing the university with are product so the product must be able to be publicly displayed.

**User Requirements**

The requirements that the program must follow for the user. The users are any of the stakeholders,

| Reference ID | Description | Priority |
| --- | --- | --- |
| UR\_Win | In the program there is a way for the user to win the game and it to end. | Shall |
| UR\_Loss | There is a way for the user to loss before completing the game | Shall |
| UR\_Operation | The program is simple and easy to use so everyone at the open day can use it. | Should |
| UR\_Game | The program will allow the user to play through the game from beginning to end. | Shall |
| UR\_Controls | The controls of the game are easy to follow | May |
| UR\_Website | The program and all the files will be on the website | Shall |
| UR\_College | The program will contain at least 3 colleges | Shall |
| UR\_Points | The User can acquire points while playing the game | Shall |
| UR\_Plunder | The user can acquire plunder while playing the game | Shall |
| UR\_UX | The program should have a fun user experience for the open day and show the skill of the CS students. In a reasonable time frame, 5-10 minutes | Should |
| UR\_Ships |  |  |

**Functional System Requirements**

| Reference ID | Description | User Requirement |
| --- | --- | --- |
| FR\_Tasks | The game will have a series of tasks to complete before the final objective. | UR\_Game |
| FR\_Map | The game will show to user a whole map of the game with the position of colleges and ships | UR\_Game |
| FR\_Movement | The game will allow the user to navigate themselves around the map | UR\_Game |
| FR\_Objective | The game will have 1 or 2 objectives which when completed means the User has won the game. For example capturing the main college of acquiring enough points | UR\_Win |
| FR\_Graphics | ? | UR\_UX |
| FR\_SFX | The game with have sound effects when certain actions are taken | UR\_UX |
| FR\_CollegeSelection | The game will allow the User to select the college they want to play with | UR\_College |
| FR\_Capture | The game allows the User to capture other colleges. | UR\_Game |
| FR\_GainPlunder | The game allows users to collect plunder through the capturing of college getting it from water and destroying other ships | UR\_Plunder |
| FR\_GainPoints | The game allows users to collect plunder through the capturing of college getting it from water and destroying other ships | UR\_Points |
|  |  |  |
| FR\_NPC | The ships of the other colleges can interact with the user. | UR\_Game |
| FR\_Destroyed | The users ship can be destroyed and this will result in the loss of the game | UR\_Loss |
| FR\_Health | The Ship has a certain amount of heath a ship starts with | UR\_Ships |
| FR\_Speed | The ship has different speeds at which it can travel across the map | UR\_ships |
| FR\_Damage | The user ship is able to acquire damage | UR\_ships |

**Non - Functional System Requirements**

| Reference ID | Description | User Requirement | Fit criteria |
| --- | --- | --- | --- |
| NFT\_inputLatency |  | UR\_Control |  |

**Constrained Requirements**

| Reference ID | Description | User Requirements |
| --- | --- | --- |
| CON\_OS |  | UR\_Operation |
| CON\_Playtime |  | UR\_UX |
| CON\_PG |  | UR\_UX |
| CON\_2D |  | UR\_UX |
| CON\_Screen |  | UR\_Operation |

**Possible Risks of Requirements**

-Environmental Assumptions

-Working speakers

-Associated risk:

-Alternative to Requirement:

-Non-Environmental Risks:

-Older Users

-Associated risk:  
 -Alternative to Requirement:

Requirement Log

Initial requirement research: 26/11/21 Customer meeting with Tommy yuan to talk about the briefing documents. This gave the team the constraint requirements and answered our assumptions about certain user requirements and Functional System Requirements.