

### **Project Summary**

The main objective of “A Pirate’s Life” is to create a massively multiplayer online role playing simulation game (MMORPG) themed around the era of Pirates. In the game the players will have options to select where they start their adventure in, where each region has their own scenery, environment and story to it.

When designing the requirements for the project, consideration was placed to ensure that there are guidelines and acceptance tests which will be used to satisfy which have been broken down into different categories: Functional, Data, Performance, Dependency, Maintainability, Security, Usability and Humanity, Look and Feel, Operational and Environmental, Cultural and Political, and Legal requirements.

For the functional requirements, many considerations had to be made such as the project needs to launch correctly when a player starts the application, otherwise the game cannot be played. The project will also need player accounts so that each player has their own account and entity to the game where then the player must be able to login successfully to play the game and to upgrade the account to unlock the game and all its features so payment processing is necessary to implement. Additionally when the player starts the game, players should be able to create their character to use in-game, and upon creation must select a server for which world to load into. To conclude the project at last needs to render the graphics for the game so that the player can visualize all the activities the player can do once the application starts.

Regarding the data requirements the development team will set, it is important that the team creates proper objects with the correct types of variables they will end up holding. Examples of this set by the team would be ship objects that are capable of storing information regarding the ship model, name, status, quality, etc.

The performance for the project is expected to be optimized well enough so that players may play the product without any sort of hindrance that may deter them from enjoying the game. Examples of expected performance include low latency for players and responsive combat.

To ensure the product has a strong structure that players can trust, the team has set safety measures that make the product consistently secure, reliable, available, safe and fail proof. An example of this is how secure the accounts private information is stored by the use of hashed password. A Pirate's Life will also always be available for players to play on barring scheduled maintenance so that the player can get the maximum playtime if they wish to. The secure subscription payment transfer will also be something players will be able to trust the team with due to how closely the team will be interacting with financial institutions.

The product will consistently be maintained throughout the lifespan and this will be done by constant scheduled maintenance, flexible supportability and adaptability, and having a realistic idea of the product lifetime. The scheduled maintenance will help consistently resolve any sort of bugs that may be reported, the game breaking bugs will be immediately hotfixed if deemed necessary. The product will always be accepting of change and will have frequent device

compatibility updates in order to implement requested input controllers for those who may not use the traditional gamepad controllers. Roadmaps of content release will always be available for players to help allow them to plan out while also giving developers an idea of how long until more content needs to be created. In order to attract the largest possible playerbase A Pirate's Life will accommodate many different languages via a language personalization option. This will allow players of many nationalities to enjoy the game to its fullest by giving the option to switch the game to a different language.

A Pirate's Life is going to be marketed as a realistic pirate simulation MMORPG, and as such the project will need to have realistic graphics that can compete with the best AAA games. This will be essential, as without realistic graphics the realism of the game will fall flat. The project will be compatible with Windows systems, Playstation 5, Xbox Series X, and the most recent generation of VR systems. This requirement not only gives the project the widest expanse, but also ensures that the console systems running it have the required minimum hardware to run it effectively. Leading up to release one of the things that will set this project apart is the promise of consistent updates and content releases. Thus it will be very important for the success of this project to make sure that this requirement is met. Due to the subscription based model, this requirement will ensure that the project is able to maintain a healthy user base throughout it's life.

The Cultural and Political requirements set forth for this project are limited. The game will require the players, who will be the individuals playing the game. Without the gaming enthusiasts this project's lifespan will be short lived.

Due to the nature of the project, a subscription based game, it is imperative that the project complies with legal requirements for handling user's sensitive information. This includes not only personal information, but financial information as well. To ensure this, we will audit our application and ensure that it complies with all applicable legal requirements.

To conclude with the acceptance tests, these tests were designed with passing cases with each requirement. For any of the requirements, if the player or user can perform the action of the requirements then the test for them will pass. Failure to perform any of the requirements results in a failed test which must be rectified so that the player has no issue. The tests fall under requirements so that the user does not see or have any issue in-game and additionally, there are tests so that administrators can ensure that there are no errors, informing the admins that everything is running correctly. From launching the game, to logging in, character creation/selection, playing the game, and finally the player exiting the game the player should be able to do all these actions with no issue. Administrators should be able to update servers, ensure payment processing, ensure satisfactory latency, ensure cross platform playability, player information security, ensure the anti-cheat system works correctly, malware protection, multicultural adaptability, and all legal requirements are met for the project utilizing the tests set forth.