Feasibility Study Document

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Our project is to make a 2D game. In order to begin design and development, we must know what software and tools we will be using across our project development. We have done research on various general game development tools as well as specific tools for features we explicitly want in our game. This includes front-end and back-end software as well as how we will manage storage and data management. Furthermore, our team has a genre and direction of the game we are looking towards, but learning if players would be interested in our concept is important early in the software process. Being able to understand which sub-genres and game features players are interested in can motivate our project direction to more align with player needs. A feasibility study has been conducted which results will be explained in this document.

First, we researched which game engine we wanted to use. Unity is a front-end and back-end game engine using the C# programming language. Unity excels in 2D and 3D games. Although Unity and Unreal Engine are both well-known industry standard programming languages, since our game will be primarily in 2D and Unreal Engine specializes in 3D, Unity is a better fit. Unity has many built in libraries and an expansive asset store. Unity Gaming Services has a free tier which allows for many services inside Unity projects including cloud saving, leaderboards, and multiplayer. Unity Gaming Services has the advantage that it has a “pay as you go” model, includes a large number of services in one bundle, and is easy to integrate with Unity projects. MySQL is an alternative relational database management system that stores and manages data which can be linked to a Unity project. MySQL can be useful if all of the features of Unity Gaming Services are not needed and is entirely free.

In the analysis of our survey result, our team found some interesting findings. Our survey’s five questions were targeted to understand our player-base’s opinions on roguelike/roguelite, co-op multiplayer, side-scroller/dungeon crawler, rpg-style action/bullet hell, and lastly whether they would be generally interested in our project. An immediate observation made was that a neutral stance was alway the first or second largest opinion. This means that either survey participants were unknowledgeable about the questions being asked or that they are flexible to different types of sub-genres. One of the key findings of our survey is that most people responded positively to a rpg-style action game as well as a game that supports Co-Op multiplayer. We also noticed mixed reactions with a large quantity of indifference between whether to make the game roguelike/roguelite as well as side-scroller/dungeon crawler. Our final question on the general opinion of the project found the majority of players taking interest in the game genre.

In conclusion, it appears that a majority of our player audience would be interested in the general concept of our video game. Our project is easily feasible with the Unity game engine with access to Unity Gaming Services/MySQL. Unity has extensive guides and documentation

that simplify the process of making a 2D game as well as an expansive asset store. Based on our survey results, our project should lean into refining details liked by players such as rpg-style action. Overall, ensuring that our game accomplishes the necessary requirements for an action roguelike game by understanding current games on the market and audience expectations will be critical to the final evaluation of our project.