2D 1V1 SWORD AND FIGHTING GAME SOFTWARE DEVELOPMENT PLAN

PROJECT OVERVIEW:

This project is a 2D Sword and Shield Fighting Game developed using the Godot Engine and GDScript. It delivers a local 1v1 experience where players can engage in fast-paced duels featuring simple yet deep combat mechanics such as attacking, defending, and dashing.

From a development perspective, the project emphasizes the creation of modular, clean, and maintainable gameplay systems, adhering strictly to modern software engineering principles such as version control, structured code architecture, and high code quality standards.

TARGET USERS:

The game is designed for players who enjoy medieval-style sword fighting and the thrill of battling friends in close, skill-based encounters.

CORE MECHANICS:

At the start of each match, a short tutorial video will play automatically, introducing the core gameplay mechanics. Players can skip it with a single button press.

The players will have four base mechanics. First of all, movement is a key part of the game, limited to left and right directions, as players must carefully manage their distance. To instantly adjust their position, players can perform a dash, allowing them to quickly reposition and maintain a safe distance. Attacking provides three different strike options — upward, horizontal, and downward. Similarly, players can defend against attacks from these same directions, and a successful defense can open up opportunities for counterattacks.

There is also a time limit that increases the intensity as the match progresses. To win, a player must either completely drain their opponent's health bar before the timer runs out or have more health than their opponent when the timer reaches zero.

During a match, players can pause the game at any time to access a menu containing Resume, Options, and Main Menu buttons. Within the Options menu, they can adjust Volume and Screen Resolution, and toggle between Fullscreen and Windowed display modes. After each match, a results screen will appear displaying the final score and providing options for Rematch and Main Menu.

WHY PLAY OUR GAME :

So our game is going to be simple but learning and mastering the mechanics are going to be a bit tricky because the your opponent is going to have a bigger chance at hitting you than you being able to defend that attack so learning how to read the animations and which direction to defend is going to provide a big opportunity to you. Unlike the games in the same category like Mortal Combat that primarily stands out for its visual experience or like Dragon Ball FighterZ a game known for its deep combo systems and having anime-style visuals.
We plan to make the game with a more classical type of visual and sound effects and in the combat department we aim to emphasize the mechanics of range control, blocking and creating an opportunity to land a combo on the enemy.

MONETIZATION PLAN:

Our goal is to publish the game on Steam at a reasonable price.

MARKETING PLAN:

We also plan to send some free game codes to some well-known influencers and ask them to mention our game in one of their videos so the game might gain attention from the people that like this category.

TECHNOLOGY STACK:

To bring this idea to life first of all we need to choose a game engine so we wanted to power this game with godot (gdscript) because it is easier to learn and has some basic interfaces. We are planning to gain some experience and we don't need a really powerful engine for our 2D game with some classical type of visuals. Our team has some experience working with python and the engine's custom scripting language gdscript is just like python and easy to learn new features.

INITIAL DESIGN:

Players will first encounter the game's main menu, where they can choose whether to start the game, adjust their preferences through the options menu, view the credits to see the developers, or check where we sourced our models if they liked them. They can also quit the game at any time.

When players choose to start the game, they jump straight into the action and begin fighting. They can see their character's health bar, the timer, and their character ready for battle.

DEVELOPMENT SETUP:

-PROJECT MANAGER and CORE SYSTEMS ENGINEER
Oğuzhan Çelik

-GAMEPLAY ENGINEER
Yunus Emre Yılmaz

-MENU and UI ENGINEER
Tuğana Öykü Yıldız

GITHUB LINKS:

GitHub Repository Link:
https://github.com/Yuramikon/Principles-of-Software-Engineering-Project
GitHub Project Board Link:
github.com/users/OguzhanCel/projects/3