Team 2020

Super Vandal World
Request for Proposal
Version 1.0

Document History

Version	When	Who	What
1.0	30 November 2020	Ben, Justin, Davey, Heba, John, Keller	Drafting

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1.0 Problem Description / opportunity / expression of need

With a plethora of universities and colleges all around the world, it makes it difficult for incoming students to know their mascots. Our intention with *Super Vandal World* is to educate the masses about University of Idaho's mascot, Joe Vandal, with a simple 2D platformer. This type of video game is destined to succeed because of the popular growth of retro Nintendo games like *Super Mario Bros, Donkey Kong,* and *Sonic* from Sega. The goal of the game is to navigate Joe through tough environments while avoiding obstacles and enemies to reach the end of each level. The difficulty of the game is low, to allow for a broad audience to pick it up quickly. Overall, *Super Vandal World* is an entertaining game that will get you hooked and keep trying for a higher score.

2.0 Project Objectives

The objective is to create a 2D platformer game. The game will include 3 levels and a variety of environments.
- Player
    - Keeps a record of score and active abilities
    - Character able to move and jump around the world
    - Can interact with non-player enemies and kill / be killed
    - Checkpoint system for progress through levels
- Interactables
    - Objects inside the map the player can pick up for score and gameplay
    - Gameplay can be modified through pickups
- Enemies
    - Placed throughout level
    - Have various behaviour patterns depending on enemy type
    - Ability to kill player and be killed by player interaction
- Menu/UI
    - Main menu for game launch
    - Pause menu in game can return to main menu
    - Help menu available from both main menu and pause menu
    - Ability to adjust game volume within menu
- Audio
    - Background music associated with the level theme
    - Sound effects for player and enemy actions
- Levels
    - Able to load to a specific level from menu
    - Environmental variety between levels
    - Fills environment with relevant obstacles and enemies

3.0 Current system(s) - if any / similar systems

Over the last few decades, since video games became available to the everyday person, there have been hundreds of 2D platformers developed such as: Super Mario World., Donkey Kong, Super Metroid, Mega Man X, Kirby, Castlevania, Sonic and many more. Each of these platformers has their own unique take on what it means to be a 2D platformer and how they engage the player.

Super Mario World - SNES
- Super Mario World is a 2D platformer game developed by *Nintendo* in 1990. The story follows the iconic Mario as he adventures to save Princess Peach and Dinosaur Land from Bowser and the Koopalings. Throughout the game, Mario must overcome numerous obstacles, enemies and boss battles using his jumping skills, as well as different power-ups found through-out each level. In addition to this, Mario also has to complete each level before the timer on the level runs out and can collect coins throughout the level to contribute to his overall score. There are a total of 72 levels in Super Mario World.

Sonic the Hedgehog - Sega Genesis
- Sonic the Hedgehog is a 2D platformer game that was developed by the *Sonic Team* and published by *Sega* for the Sega Genesis in 1991. The story follows Sonic as he battles against Dr. Ivo Robotnik who is trying to steal the six Chaos Emeralds and has trapped the animals of South Island inside of robots and metal capsules. Sonic uses his speed and spin-attacks to free the animals that Dr. Robotnik has captured, while racing through a variety of levels that include obstacles like springs, loops, and slopes. As Sonic makes his way through a level, he must also collect rings in order to increase his score. The rings are also unique because they act as an extra "shield" for Sonic, where he can be hit by an enemy or hurt by a hazard in the environment an additional time if he currently has rings collected.

4.0 Intended users and their basic interaction with the system

Intended User:
- People who prefer a game with a single player.
- A great option for passing time.

Uses:
- Use the Keyboard to control the main character (Joe).
- Get as many hammers as you can to kill the small enemy and the bosses.

5.0   Known interactions with other systems inside/outside the client organization

1. A server for storing high scores
2. A distributor of the game
   a. Steam
   b. Windows Store
3. Amazon Web Services for hosting game online

6.0   Known constraints to develop

1. Game must be created using the Unity Engine.
2. Game must be portable to different environments(Windows, Mac OSX, Linux)
3. Hard deadline date of December 10, 2020.
4. Budget limit of $75,000.

7.0   Project Schedule

Date	Objective
9/24/2020	Set up a code repository using Github.
10/01/2020	Minimum viable product due.
10/08/2020	Boundary and stress tests of the game developed.
10/22/2020	Multiple levels designed and implemented.
10/29/2020	Different types of enemies and bosses placed into levels
11/5/2020	Implementation of checkpoints and respawns.
12/8/2020	Fix bugs and remaining issues with the game.

12/10/2020	Final product due.

8.0   How to Submit Proposals

All proposals must be submitted via email to John Doe, contracts coordinator for Team 2020, at proposals@fakedomain.com. Any questions may be sent via email, or discussed at (999)999-9999. Any questions answered will be made publicly available.

9.0   Dates

The deadline for proposals is 11:59pm PST on November 30, 2020. Decisions will be made and all applicants will be notified of their proposal status within 2 weeks.

10.0 Glossary of Terms

Terms listed below are terms that may be unfamiliar to your group but will be meaningful in the scope of this project.

- **GitHub**: a development platform inspired by the way you work. From open source to business, you can host and review code, manage projects, and build software alongside 50 million developers.

- **Minimum Viable Product**: the most basic coded version of the game showing a 2D platformer that demonstrates the basic functionalities of the game.

- **Portable**: the usability of the same software in different environments.

- **Bug**: an error, flaw or fault in a computer program or system that causes it to produce an incorrect or unexpected result, or to behave in unintended ways.