**Super Heisenberg 2018**

**Game Overview**

The genre of our game is a 2D platformer, consisting of multiple levels that will accessible through an overworld showing the players progression.

Initially we plan to have four or five pre-built levels contained in the “first world”, a final boss level, and a level editor to create more levels. If time permits, we will be creating more worlds containing more levels.

The art style of our game will be very simple and creative. We plan to make the backgrounds and foregrounds very creative and abstract with 8-bit type of feel. Character’s will also be 8-bit pixelated sprites.

**Gameplay and Mechanics**

**Gameplay**

The game will start with a login screen. This will allow players to create their own profile which record their progress and save their collectables.

Levels will contain standard platforming, puzzles, Easter eggs, collectables, minions, etc. The goal of each level will be simply to reach the end, but by collecting in game currency, players will be able to buy upgrades for their character to make future levels easier.

Upon completing a level, the player will be returned to the outer world where they can view their progress through the world and continue to the next level. Saves will be made only upon completion of a level and reaching the outer world. Saving will be done automatically.

The objective of the game is to complete all levels until beating the final boss.

**Mechanics**

Players can move right, left, jump, slide, shoot, and switch weapons.

Players and mobs will be affected by the proper gravity of their environment. For general earth levels gravity will be standard but we intend on implementing higher and lower gravity levels such as space levels. Bullets will not be affected by gravity.

All currency, power ups, and other objects will just have to be touched by the player. Buttons/Switches can be shot, or hit by the player. Buttons, switches, etc. will be used to implement different challenges, puzzles, and level editing for players.

Combat will be done through collision and weapons. Players will take damage by bullets and by touching mobs. Mobs however will only take damage by bullets. We will be generating “friendly” and “enemy” bullets, so that other mobs will not hurt each other, only players.

There will also be various obstacles in levels which will cause damage to players and mobs. It will also be possible to jump off the map causing instant death. After taking damage, the player will have several invincibility frames. Certain monsters will or will not have invincibility frames.

Economy of the game will be revolving around our currency collected in levels. Players can stockpile the currency to spend in the player upgrade store. The store will only be available while in the outer world and will contain various permanent upgrades like more health, better weapons, etc.

Screen flow will be smoothly to the right. We have decided to have no back tracking through levels, so the game will smoothly draw new elements on the right as the play moves forward.

There will be difficulty options to adjust for different player skills. Adjusting difficulty will not alter the levels themselves, only mechanics such as: Bullet speed, damage modifiers, etc.

In the options menu there will be the ability to re-map keys for players.

There will also be a cheat mode only for debugging purposes. This will be removed from the game.

**Story**

In Super Heisenberg our character is a treasure hunter hired by a world renown museum.

Heisenberg (the main character) travels to various dangerous areas battling bosses

and collecting artifacts, where each boss drops its own specific type of artifact.

The Museum will act as a safe space where the character can swap weapons, outfits, and spend currency. Currency can be picked up in levels and acquired by trading in artifacts from the level bosses. Players will be able to purchase weapon/health upgrades and various character skins via the museum’s merchant. The Museum will only be accessible from the outer world.

**Levels**

There will be an outer world which is essentially a map of the progression players must make. In this outer world players can see their clear path through levels until reaching the boss, but levels can only be unlocked by beating the previous level.

Level design for our game is going to be very abstract and creative. We intend to make levels really stand out from each other.

**Interface**

The heads-up display for out game will be very minimal. It will only display the main characters health, the current weapon being used, current power ups, and boss’s health during boss fights.

Players can pause the game to see their controls, rebinding keys will be available in the options.

Each level will contain its own music and there will be specific sound effects for all interactions.

Our group has decided to try to keep the UI as simple as possible. Appendix A is the home screen for our game after logging in. The only sub-menu will be upon clicking the “Play” button, players will be presented with a “New Game” or “Load Game” button.

The “Load Level” button will allow the player to select user created levels to play. “Build Level” will open the level editor for players to work on and create their own levels. Lastly, “Options” will contain audio, visual and key bind settings.

**Artificial Intelligence**

Enemy AI’s will all have their own specific behaviours. There will be simple mobs which will follow set patterns and others which will be random to prevent predictability.

**Game Art**

Currently, we intend to create our own 2D 8-bit style art and sprites for the game.

**Level Editor**

For the level editor, we will be implementing a very similar design as what Mega Maker uses. We have chosen this due to the simple drag/drop style of placing objects being extremely user friendly and simple.

The level editor will be most likely the last feature implemented.

**Player Account**

Upon launching the game, players will be greeted with a login screen. They will have to log in or create a new account to access the server. This is mandatory for tracking player progression.

Players save games will be stored by Checkpoints reached after completing a level.

If time permits, we will be implementing high scores for mob kills.

Achievements will be implemented for players such as buying all upgrades, killing all mobs in a world, etc. Just more goals for players to try and achieve.

**Appendix A:** Home Screen

