Hansel and Gretel (This document should be evolving

Project Overview add major sections and decisions at your leisure)

Ex: Adding enemy design section or smth

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#### 1.

A. The goal of this project is to create a 2D action platform game based on the original Castlevania video games for the NES. It should take less than 8 minutes to complete and tentatively consist of one level and a boss.

The game's artistic aspects that consist of theme, enemies, plot etc. should be heavily based on the Hansel and Gretel fairy tale. It is not to be an exact projection of the tale into a video game by any means, and creative liberty should be taken as far as desired.

Core technical features the game will include:

Ability to control singular platformer character

Enemies with simple AI

Boss Enemy  
 Global Coordinate System

Construct Level From Titlemap

Extension Features:

Multiple Playable Characters

Parallax Scrolling

Local Multiplayer

Multiple Levels

We will build this project using Pygame as our main development tool, with Asesprite/Libresprite serving for sprite art. Level design should be done in an abstracted form first before being translated into the game via the use of tilemaps.

#### 2.

1. Basic Synopsis  
    Hansel and Gretel were looking for food in the woods after their family was suffering from a famine. They find a house made of candy in the woods. However, they are both captured by an evil witch. While Gretel has been locked beneath the witch's candy house, her brother's fate is unknown. She must escape, defeat the witch, and find her brother.

1. In Game Storytelling

The game should start with our main character Gretel, trapped within an underground dungeon. No further context should be given to the player besides the test “Escape and find your brother!” flashing on the screen for a couple of seconds Throughout the level Gretel will work her way up and out of the dungeon defeating a boss creature as she escapes. (DEMO ENDS HERE). Throughout the level, journal entries can be found, expanding on the nature of the famine and Hansel and Gretel’s journey before being captured. (As this is just 1 level, expect to place like 1 or 2 of these around, remember this is just a demo)

Tone: The game should attempt to have a somewhat bleak tone, to achieve this utilize a limited color palette and use sound effects and music sparingly . Even if the original tale sounds somewhat goofy with the witches in candy houses and all, try to twist that into your own darker vision, whatever that is to you. Just don’t be overly goofy ie “the evil candy monsters made out of hyper realistic blood appeared”.

#### 3.

The goal for the gameplay is to as closely replicate what the original castlevania accomplished.

The philosophy behind the original game was to maximize the rhythmic flow state between the player through difficulty and preciseness. Consider this when creating new ideas.

Core elements of what this would include includes:

Limited movement system: Needed to create the tight rhythmic feel of the original and keep difficulty high (Gretel should move at around 1 pixel per frame at top speed, and should not be able to change direction when jumping to get this working)

Long Range Main Weapon: Allows the player some leniency and core to retaining the actual feel of castlevania

Subweapon System: Players may hold one bonus weapon in addition to the main, powered by collectibles found within the level (Probably bread to reference the fairy tale or just hearts as used in the original castlevania). Used to create variety and allow the player to strategize more in combat

Rule of fun: There should be ‘activity’ of any kind about every 3 seconds of gameplay. This can and in most cases should be as minor as an enemy, platform, cool piece of pixel art ect, there just be something.

The player should have 6 bars of health from the start. They may heal using food items hidden in the level.

Enemies will mostly move independent of the player's position and spawn continuously.

#### 4.

The level design is to oscillate between 3 main elements: Combat, Platforming, and Exploration.

The main way that we will interact with the player is through combat and various enemies. It should be the element most used and developed as the game continues. This quirk is inherited from the Classicvania genre and needs to exist in order to make our main characters' combat focused controls make sense and play well.

Of course platforming is still rather important and should be used rather heavily (although not to the same extent obviously) to add variety to the game. Early on in the level it should just be used by itself in easy sections but later it can be used in conjunction with enemies to create interesting and difficult sections for the player. Obviously the difficulty of the standalone sections should increase drastically as well.

The final element of note should be used rather sparsely and is not incredibly vital. To create a less stale and more novel gameplay experience, things like secret rooms and alternate paths should be considered when creating the level. They do not/should not be of major length or importance, but should simply add some replayability for the player. At a minimum, the journal pages mentioned in the Story, power ups, and health should be hidden for the player to find.

Additional things that should be considered for the design are:

Torches/enemies: They should contain the “Bread” mentioned in gameplay that allows the player to use subweapons. Some torches should contain subweapons themselves.

Teaching through gameplay: We should seek to introduce new elements to the player like new gimmicks, general controls, enemies purely through gameplay, try not to use any text boxes or signs.

As for the specific level we are making, it should be a dungeon level with a bleak tone as mentioned in the tone section and try to incorporate ideas from this page.

Potential gimmicks could be:

Climbing chains

Breaking platforms

Switches to open foors

#### 5.

The game should feature support for both WASD and Xinput control mechanisms.

WASD:

AD: Movement

S: Crouch

Space: Jump

K: Attack

W + K: Subweapon

Enter: Pause

Xinput:

Analog stick: Movement + Crouch

A: Jump

X: Attack

Analog stick Up + X: Subweapon

Start: Pause

The game will only accept digital inputs and translate analog to digital as needed when parsing xinput joysticks.

#### 6.

FOLLOWING SECTION IS OUTDATED AND WILL BE REVISED AROUND 12/1/23 DEPENDING ON PROGRESS

Assuming the formal due date of this project is after winter break we should aim to have a ‘product’ done by before it stops, in order to allow people who would like to refrain from working during that time to stop working.

If extension features are still desired, those can be finished during break.

To keep up with this due date the following is proposed:

11/21/2023: Zero Feature Release

11/28/2023: Main character physics + coord system

12/4/2023: Tilemap to level converter done + enemies

12/11/2023: Implementing level, continue adding enemies and other objects

12/18/2023: Final boss

Additionally polish and bonus features can be added after if this is successful.

In all seriousness there is a significant chance that this timeline somewhat fails and barring any potential delay, some work may have to extend into the break

# Architecture: