Design Document

Game Overview

Details of the game

It will be a First-person horror game using keyboard controls such as WASD for movement and mouse for looking, the game is targeted for PC platforms. The main character is stuck in a terrible memory from his childhood and must retrieve all the memory fragments and key items to escape the nightmare.

Concept

- The player will run around the labyrinth whilst getting chased occasionally by monsters, the player wins the game by collecting all the fragments/items and arrive at the exit. In a way, similar to Pacman.
- The plot of the game starts with the character stuck in a terrible memory from his childhood and must retrieve all the fragments to escape the nightmare. The player must collect enough fragments whilst avoiding and escaping the monsters. They must navigate through the dark with a flashlight to find said fragments. The game will utilize keyboard controls as well as voice input for an immersive horror experience.

Unique selling points

- This will be a portfolio work.
- The game will be horror based, with randomized chase sequences. The game will also use mic input to determine the chances; the louder the noise you make, the longer the chase sequence / higher the chance of a chase occurring.

Equipment

- Hardware
  - Jounivo USB Desktop Microphone
    - Other microphones can also provide the same functionality, This was chosen to be used as it is available.
  - Nvidia GeForce RTX 3060

            - To be able to run Unity smoothly, I have installed a Nvidia graphics card.
        - 1920 x 1080 74 hertz iiyama Monitor
            - A 74 hertz monitor can provide a great experience in play testing, and allows me to identify problems easier.
        - Steelseries Apex 5 Keyboard
            - For its fast input time, it allows me to play test as a normal player.
    - Software
        - Unity 2022.3.9f1
        - Visual Studio Code 2019
        - Microsoft Project
        - Audacity
        - Photopea
- Target Platform
    - Desktop/PC
- Game Objectives
    - Avoid the monsters
    - Collect key items & objects
    - Reach the end when objectives are all completed
- Gameplay
    - Game rules
        - The player is allowed to sprint for a limited time
        - The player can survive up to 3 hits before it is game over
        - There will be no revives
        - There will be safe rooms for the player to take a breather and save the game
        - The monsters WILL be faster than the player
    - Game Structure
        - The map design will be inconsistent with long and short corridor, sharp cuts
        - The player will utilize keyboard & mouse controls.
        - The game will be in first person view
    - HUD

- Similar but not limited to the picture shown below. The UI elements will provide information such as the number of collected items and the eye items, as well as a health bar indicating the player's HP.

https://www.moddb.com/games/the-chaser-2017-horror-game/images/hud

Player

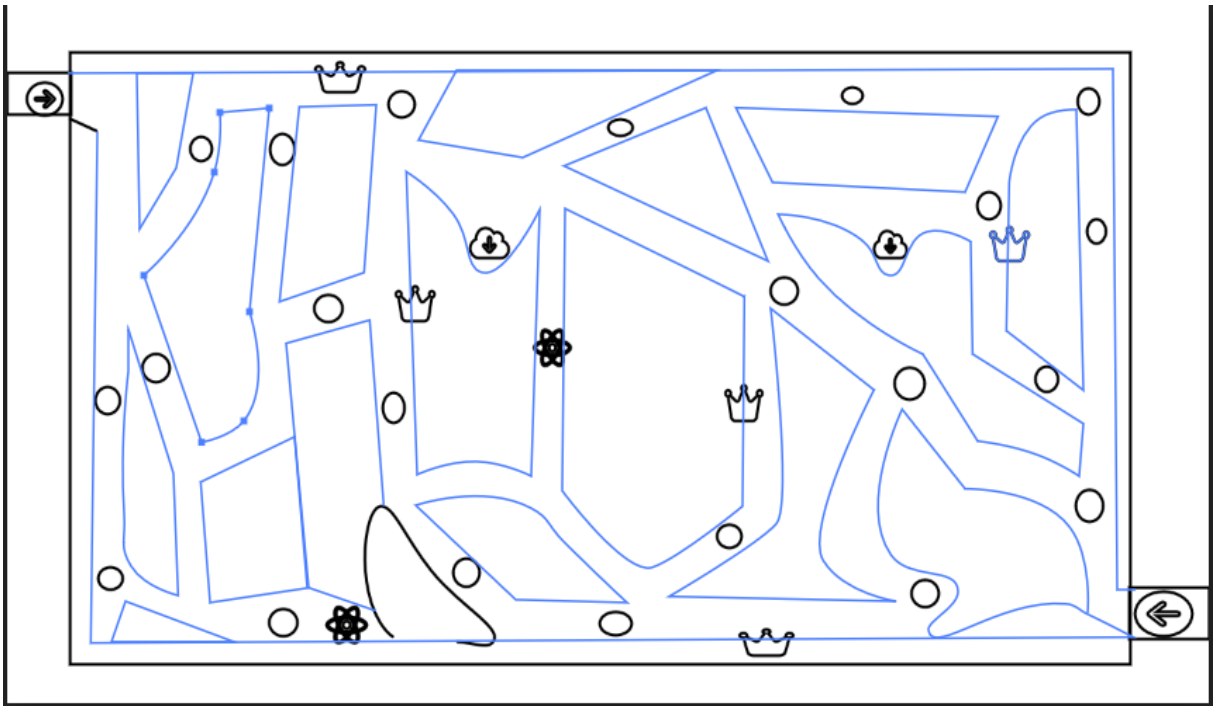
- There will only be one player for the time being, more will be added with future updates
- Player metrics
  - Speed; Normal walking speed will be around 20f, 1.3x the amount when sprinting
  - Max Health; 3 Hit points
  - Sprint time; 7 seconds
  - Player states; Idle, walking, sprinting, injured and death
  - Equipment; Flashlight

NPCs

- There will be 2 NPCs that are stationary that will allow the player to save their game, and temporarily protect the player from monsters.
- NPC monsters will appear at random behind/in front of the player, chances depend on other factors, e.g. sound input from the player's microphone/ time elapsed. The monsters will have 4 states, walking, running, attacking and despawning.

Level Design

- Sketch of the map



- Arrows represent the player starting points, the cloud saves represent the places the player can save their game at, circles represent the fragment locations, the atom symbols will be where the key items spawns, the crown symbol are the possible locations the exit will spawn at.
- Asset list
  - 1x Player, 2x NPC models, props such as tables & chairs, wall & floor textures, key item & fragment textures, HUD elements.

Narrative

- The player will talk about their pass every few times they collect the fragments.

Scheduling

- Development Plan (Highlighted are milestones)
  - Create the level in Unity based on sketches.
  - Create/Obtain textures for walls & floor of the level.
  - Create/Obtain models for the player & NPCs.
  - Create/Obtain audio for player & NPCs, as well as ambience & chase sequences.
  - Adjust lighting of the level to suit the genre.
  - Create/Obtain props and place them in the level.
  - Play Test

        - Implement Player & NPC model animations & states.
        - Create script for Player movement & Flashlight usage.
        - Create script for level saving.
        - Create script for enemy movement & spawning conditions.
        - Implement UI elements.
        - Play Test
        - Create script for item collecting & key item obtaining.
        - Create code for Player HP and death conditions.
        - Create script for winning conditions.
        - Play Test demo and fix bugs if necessary.
        - Sharpen materials & textures.
        - Gather group for play testing.
        - Make adjustments based on advice.
        - Ship the artefact after changes.
- File Types
    - MP3 files for audio
    - CONTROLLER Files for animations, ANIM Files for animators
    - PNG Files for materials & UI elements
    - PREFAB Files for prefabs
    - META Files for meta
    - Unity scene files for Unity levels
    - C# Source Files for code