Game Title Mouse Mausoleum

Idea Clarity

Core Gameplay:

- Setup
    - The game begins with two players taking on the role of mice at the center of a maze. They will be in two separate rooms at the center, forcing each mouse to take a different route through the maze.
    - Each mouse has their own section of the maze to explore.
    - Each player will be given a white cheese to look for inside their section of the maze.
    - The players will be given a set time that corresponds to the level's difficulty (e.g., 20 minutes for easy levels, or 8 minutes for more challenging levels). This is a shared timer between both mice.

- Objective *(collect/retrieve)*
    - Both mice must retrieve their designated cheeses from inside the maze within the time limit while avoiding the AI patrol cats that guard areas of the maze.
    - If a cat catches either player or you and your partner runs out of time, then the level will not be passed.

- Level Status Menu:
    - The level status menu will appear once a level has either been completed (both cheeses found respectively) or failed (any mouse caught by the cat or ran out of time).
    - The level status menu will open and display the level status (failed or completed) to the first player. If the level status is failed, then the option to either restart the level or quit the game will be shown. If the status is completed, they will be presented with a selection from the level menu or quit the game. Meanwhile, the second player will be only given the status of the level, for example, level complete or level failed, and to quit.

- Level Menu
    - Upon opening the game, the first player will decide on which level to play from a variety of options that will include the difficulty of the map and maze layout.

Game Type:

- The game type of Mouse Mausoleum is a **Maze Chase**. *(collect and avoid)*
    - What makes the game a Maze chase is the element of strategy and speed. The players must apply a strategy to navigate the maze and avoid the patrolling AI cats that hunt them, as well as move quickly to avoid being caught, and finish before the time limit.

Player Setup:

- The initial game state involves a player controlling a mouse using a keyboard (WASD).

- The mouse is viewed from a third-person perspective, and the screen camera is positioned behind the mouse.

- The mouse is loaded into the maze.

AI Plan

- The AI enemy NPCs are the cats that patrol the maze.

- The AI has four primary states in its FSM: **Patrolling,** where it patrols predefined routes in the maze, **Seeking**, where it notices a mouse at the edge of its vision and tries to find it, and **Chase**, where it chases the mouse regardless of any preexisting patrol routes. These three primary states are fluid and ever-changing. If a chasing cat loses sight of a mouse for more than 5 seconds, it starts seeking, and if no mouse is found for 10 more seconds, the cat goes back towards its patrol route.

- The cat also has an **Attack** state, where, if the mouse is within range, it attacks, dealing half of the mouse's total health.

Scripted Event

- When both mice eat the white cheese, the level will be completed. A menu will appear to indicate that the players can quit or continue to the next level.

- If the timer hits zero before the players find the white cheese the level will end.

Multiplayer Plan

- Two players will play the game on their own separate devices connected via LAN.

- Only the first player will be given the decision to select levels and start levels. Both players may quit the game at any time. If the first player quits the game, their role will be transferred to player 2.

Environment and Assets

- The game will take place in a maze, where players will spawn in the middle and traverse throughout it.

- Blue Cheese will be placed throughout the level to replenish health if needed.

- Pieces of white cheese will be scattered throughout the map. Once both players have eaten their cheese, the level will end.

- We will use Unity Workshop, free3d, and rigmodels to find assets for the two cheese, cat, mouse, wall, and floor.

Weekly Timeline

Week	People	Task	Deadline
1	Everyone	Project Planning	September 13th
2	Everyone	Project Planning	September 13th
3	Everyone	A1 Planning Project Task Division	**September 18th**
4	Dayna and Aydan Adi	Player control (with FSM) FSM diagram creation	September 27th
5	Dayna and Aydan Adi	3D scene development with NPC and player Short video creation	**October 2nd**
6	Aydan Dayna Adi	Implement decision-making for the NPC Implement pathfinding for the NPC Implement Steering and Logic	October 23rd
7	Everyone	Smooth movement testing for NPC Short video creation	**October 30th**
8	Everyone	Networking	November 8th
9	Everyone	Networking	November 15th
10	Everyone	Networking	November 22nd
11	Everyone	Networking Short video creation	**November 27th**