Cat and Mouse Game Design

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Players: 1 cat, 1-3 mice

The Look/Feel:

We are going for a dark/horror theme, as the mice should always be scared of getting jumped by the cat. The sounds and art should help provide this experience.

Customizability

This game will have a default setting, where all of the settings are what WE decided is best in terms of balance. However, we will give the players the option to tweak almost all settings and variables to give a "sandbox" feel, and provide the players with maximum customizability for their match. Options that they can change:

Starting health, damage, level
Time limit/Kills limit
Respawn timer
Map type (can change the seed)

The Gameplay:

Timed Escape Mode:
The mice need to work together in order to escape the dungeon that they are locked in. There are 3 keys that the mice must collect in order to open the door (when the door is opened they win the game). Keys are collected through completion of puzzles on the map. There is a time limit set, where if the mice do not escape in time then the cat wins.
The cat's job is to prevent the mice from escaping the maze until the time runs out.
Upon death, players respawn after a certain amount of time (respawn penalty).

Slayer Mode:
In this mode there is still respawn, however a team wins when their team has reached a certain amount of kills. Naturally the number of kills required for the mice is about ⅓ that the cat will need. This mode can also be turned on during Timed Escape Mode.

The Map:

The map is algorithmically generated, and the characters will spawn in one of each of the four corners of the map. It will be a labyrinth, with powerups occasionally spawning in certain locations, and neutral monsters or puzzles in various other locations. These powerups/neutral

monsters/puzzles will spawn in "fair" locations, in order for each player to be able to access them fairly.

There are many maps that can be generated, as each map generated is exclusive to the map generation key provided. We can design different map themes for different maps, such as medieval, hedge maze, etc.

Sound:

There will be background music in the menus before the game is started, of which the volume can be changed to match the user's preference. During the game, there will be no background music, and instead the only sounds will be from in game sound effects, such as water, animals, rocks, environment (doors creaking etc), and player sounds (footsteps, combat, skills). This will provide an immersive environment as well as keep the player on edge.

The HUD:
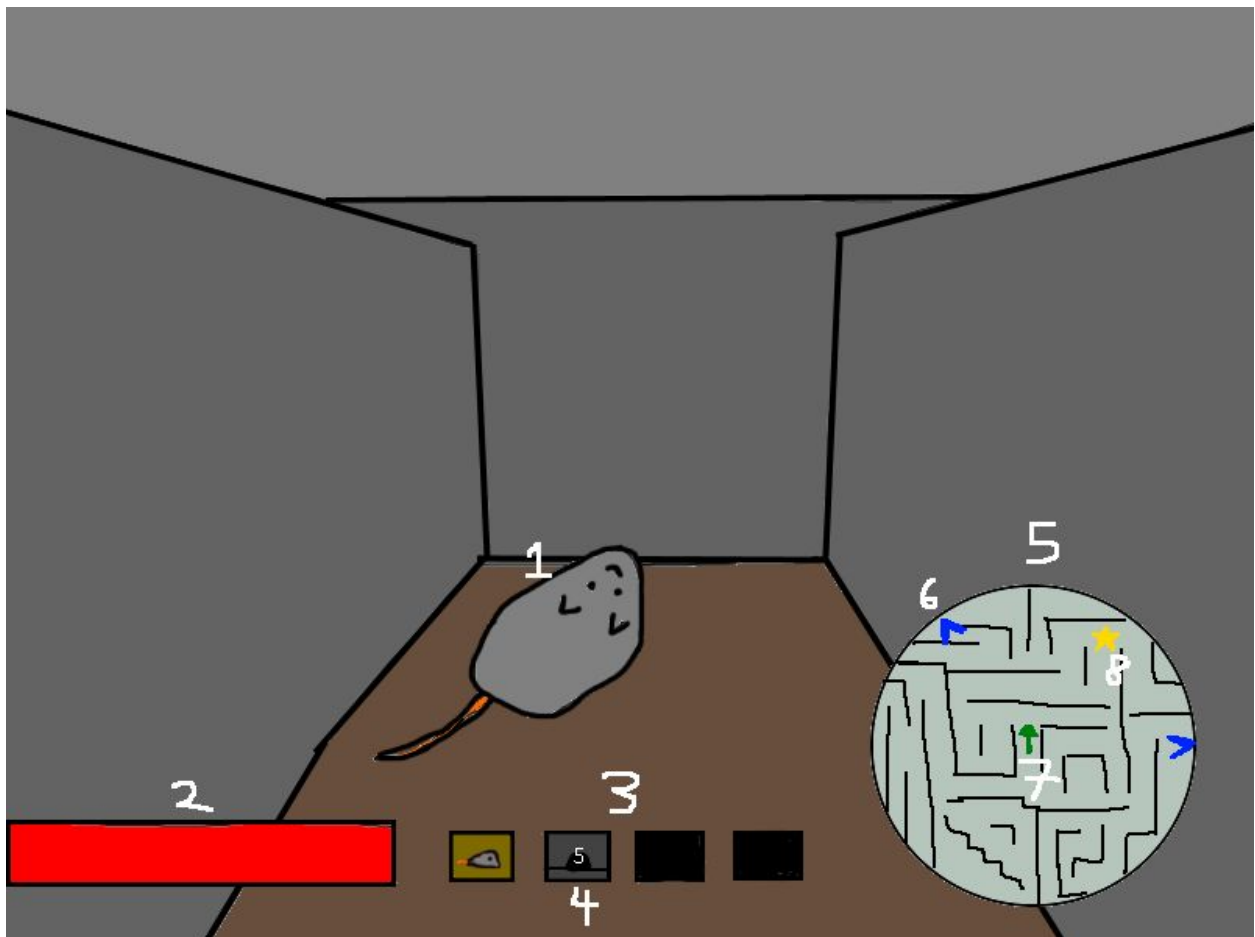
This is a very simplified drawing of what the game will look like when the user is playing as a mouse. (1) shows the player, in a third person view, and the camera will always follow the player at a short distance behind them. (2) is the player's current health bar, it is currently full so the whole bar is red, but as the player loses health the bar will go shrink until it reaches empty. (3) is the player's ability bar. Currently, the player has two abilities learned, the first ability is ready to be used, but the second ability is currently on cooldown and needs 5 more seconds before it can be used again as shown by (4). The minimap is shown in (5), showing a small area around the player. (6), which is a blue navigation arrow shows the location of the mice's allies, as shown on the map, one mouse is to the top left of the player and another is to the right of the player. (7) shows the player, as represented by a green arrow. (8) shows a yellow star, which indicates that there is a powerup there, however the players do not know what kind of powerup it is until they arrive and see it for themselves.

The Powerups:

Powerups will spawn randomly on the map at set time intervals, but these powerups will not be "oppressive" in the sense that they provide a player with an uncounterable advantage. They will provide small advantages so they will be very beneficial to take, and such that the cat and mice will try to fight over these powerups to maintain control.

Movement speed bonus: when picked up, will grant the user a small movement speed boost for a certain amount of time

Invisibility: when picked up, will grant the user invisibility from all other units for a certain amount of time

Visibility: when picked up, will inform the user of the location(s) of the opposing team for a certain amount of time

EXP boost: when picked up, grants the user a portion of EXP points

The Cat:

Health: 100 (+50 per level)
Damage:
Movement Speed:

The Mice:
Health: 50 (+25 per level)
Damage:
Movement Speed:

The Abilities:

There are many ways to level up in the game, consisting of:
-defeating neutral monsters
-completing puzzles
-activating the EXP boost powerup
-surviving in the maze, as players passively gain exp over time

Upon leveling up, the player will gain increases in their base stats as well as gain a skill point which they can use to learn an ability, to help them win the game.

Cat Skills:
Enhanced Smell: [Passive ability] granting the cat additional detection range for mice
Pounce: [Activated ability] activate to jump to a targeted location
Lie in Wait: [Activated ability] fade out of sight and become invisible as long as the cat does not move or use any abilities

Mice Skills:
Scurry: [Activated ability] activate to gain movement speed for a short duration
Camouflage: [Passive ability] the mice's model color will change to match its surroundings
Burrow: [Activated ability] activate to create a tunnel through a targeted wall

Game Mechanics:

Detection: players will be able to "sense" when the enemy team is near; they do not need to be able to see the enemy to sense them. There will be indicators informing the user that enemies are near, although the user will not know where or in which direction. The indicators include but are not limited to sound (footsteps getting louder as enemy gets closer)

Minimap: each player will have a minimap on their screen, showing them what the maze looks like in a small area around them. For the mice, they will be able to see the general direction of their allies via a arrow on the minimap (shown on the edge if the ally is not in range of the minimap). Neutral monsters, puzzles, and powerups will be displayed on the minimap if in range for all to see.

Pull out map: upon pressing/holding a certain button, a large map will be displayed showing the entire game map. The user's position as well as allies, neutral monsters, puzzles and powerups will be displayed as well.

Combat: fighting in this game is limited to melee attacks or certain abilities, meaning most of the time the user must be in close range with the enemy in order to damage the enemy. When a player reaches 0 HP, they are defeated and must wait for the game to end in order to play again (or they can leave). When a player is defeated, a notification will show up for all players to see, showing them that this player has been defeated. If all mice are defeated, a victory for the cat

screen will appear, or if the cat has been defeated, then a victory for the mice screen will appear instead.

Neutral Monsters: these monsters will be placed in random locations on the map, and players can fight and defeat these monsters in order to gain experience to level up. These monsters will fight back however, and if the player is not careful they could be defeated even before the cat sees them.

Puzzles: Certain parts of the map will have puzzles which the player can complete in order to gain experience to level up. These puzzles will not randomly spawn, but be located in specific locations on the map. However, once a puzzle is completed, it will close and not open again until a certain amount of time has passed. However, any number of players may enter an open puzzle at the same time, so fighting may occur while one is completing a puzzle. Puzzles can include:
-walking along a narrow path, falling off resulting in death
-going through a room with arrows shooting out of the walls at certain intervals
-walking through a minefield

Communication: the mice will be able to communicate with each other with in game "pings" or hotkeys bound to specific messages in the "team chat." They will be able to "ping" certain parts of the map in order to inform other mice. Pings include "danger," "on my way," or "help," and will have different symbols to represent each one.