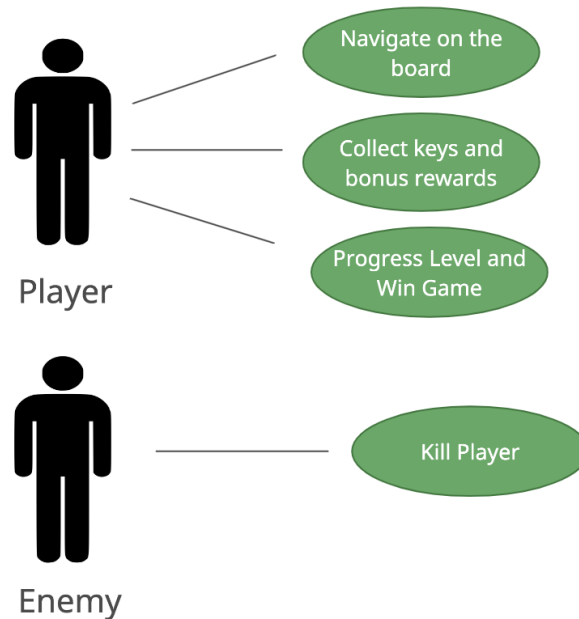


Use Cases

Game Use Case Diagram



User Case: Player completed level

Primary Actor: Player

Goal in Context: Gather all keys and find the exit

Preconditions: All keys have been found and the player has at least 1 health point

Trigger: Player collects all keys and successfully finds and uses the exit

Scenario:

1. Player observes the board and locates all keys
2. Player avoids all enemies, traps, and barriers
3. Player safely locates and exits

Exceptions:

1. The player is killed by the enemy or falls into a trap.
2. The player does not collect all keys

Priority: Moderate, to be implemented after base game functions

Frequency of Use: Infrequent

User Case: Player wins the game

Primary Actor: Player

Goal in Context: The player obtains the key for the gates of hell and escapes to Earth

Preconditions: Player must complete all 3 levels of the demon tower and have at least 1 health point

Trigger: Successfully complete the final level and obtain key

Scenario:

1. The player loads game
2. The player scans the board for the key and avoids all enemies, traps, and barriers
3. The player collects all keys and passes level 1
4. The player repeats for levels 2 and 3
5. The player obtains the key to the gates of hell and safely returns to earth

Execptions:

3. The player is killed by the enemy or falls into a trap.
4. The player does not collect all keys

Priority: Moderate, to be implemented after base game functions

Frequency of Use: Infrequent

User Case: Player is allowed to scan and navigate on the board

Primary Actor: Player

Goal in Context: Allow user to see the board and control the player

Preconditions: The game allows the user's input to move the character

Trigger: User loads game or starts next level of the game

Scenario:

1. The player starts the game
2. Board and player loads successfully and displays all barriers, enemies, traps, keys, and rewards
3. Player uses controls W (up) , A (left), S(down), D(right)
4. The player moves according to input

Exceptions:

1. The game does not load on start or next level
2. The player cannot move
3. One or multiple user inputs do not work

Priority: Essential

Frequency of Use: Frequent

User Case: The player is allowed to collect keys and rewards

Primary Actor: Player

Goal in Context: Allow user to locate and gather keys and rewards required to move to the next level and win the game

Preconditions: Game loads keys and rewards

Trigger: Player uses controls to gather key or reward

Scenario:

1. Game loads with rewards and the player can locate them
2. The player uses assigned controls to move and find paths through the maze
3. The player avoids all barriers, enemies, and traps
4. The player steps onto the cell containing the reward and reward or key counter increments
5. The player collects all keys in level and the exit is unlocked

Exception:

1. The player is killed by enemies or traps
2. Reward or key does not appear on the board
3. The reward does not increment the counter

Priority: Essential

Frequency of Use: Frequent

User Case: Enemy or trap kills the player

Primary Actor: Enemy

Goal in Context: Stop the player from gathering keys to win the game

Preconditions: Enemies can move, players can avoid enemies, enemies take 1 health point away from the player, traps instantly kill the player.

Trigger: The player comes in contact with an enemy

Scenario:

1. Game loads all enemies and traps successfully
2. Enemies are allowed to move
3. The player fails to avoid the enemy and comes in contact with the enemy
4. The player loses 1 health point
5. Enemies take 3 health points away from the player or the player falls into a lava trap and kill the player.

Exceptions:

1. The player avoids enemy
2. The game fails to deduct 1 health point from the player

Priority: Essential

Frequency of Use: Frequent