Use Case: Run game

Primary Actor: Player

Goal in Context: To start a level and play the game.

Preconditions: Game program must be started.

Trigger: Player wants to play a level.

Scenario:

1. Player clicks on icon to play the game.

2. Program loads the level map.

3. Program loads the walls and platforms.

4. Program loads the enemies.

5. Program loads the collectables.

6. Program displays score and time.
7. Player can move the character using arrow keys/wasd.
8. Program updates the movement of player and enemies.
9. Program updates the time and score.
10. Program checks for win/fail conditions.

Exception:

1. The player exits the game - use case ends.
2. The player interacts with collectable - see use case "interact with collectable".

3. The player interacts with an enemy - see use case "interact with enemy".

Priority: High

When Available: First iteration

Frequency of use: High

Channel to actor: PC-base application

Use Case: Interact with Collectable

Primary Actor: Player

Goal in Context: Update the score.

Preconditions: Game must be running.

Trigger: Player hitbox interacts with collectable hitbox

Scenario:

1. Player moves the character towards the reward.
2. Player moves the character hitbox on top of collectable hitbox.
3. Program registers hitbox collision.
4. Program removes the collectable from the game window.
5. Program updats the game score.
6. Program checks current score and opens door to next level if score is high enough.

Exception:

    1. The player encounters an enemy - see use case "interact with enemy"

Priority: High

When Available: First iteration

Frequency of use: High

Channel to actor: PC-based application

Secondary Actor: collectable

Use Case: Interact with Enemy

Primary Actor: Player

Goal in Context: Penalise player for interacting with enemy.

Preconditions: Game must be running.

Trigger: Player hitbox interacts with enemy hitbox

Scenario:

    1. Player moves the character towards the reward.
    2. Player moves the character hitbox on top of enemy hitbox.
    3. Program registers hitbox collision.
    4. If enemy is static, program removes the enemy and deducts points from score.
    5. If score reaches below 0 the player loses and the game ends
    6. IF enemy is moving enemy, the player loses and game ends

Exception:

    1. The player evades the enemy - continue the game

Priority: High

When Available: First iteration

Frequency of use: High

Channel to actor: PC-based application

Secondary Actor: enemy