

Use case:

Start game

Primary Actor:

Player, System

Goal in context:

To enter the game map so that the player can start playing the game.

Trigger:

Player loads the game and upon reaching the main menu selects the “Start Game” button by using the left mouse button.

Scenario:

1. The player has started the game
2. The main menu has loaded
3. The player selects the “Start Game”
4. The player is loaded into the starting tile of the game map and the game is started.

Exceptions:

1. The proper files cannot be found to start the game. In which case an error will be thrown.

Priority:

High priority. Needs to be implemented near the start in order to test the actual gameplay.

Use case:

Exit application

Primary Actor:

Player, System

Goal in context:

To exit the application entirely so that the program is no longer being run.

Trigger:

At the main menu of the game, the player selects the “Exit Game” option by clicking the button with the left mouse button.

Scenario:

1. The player has started the game
2. The main menu has loaded
3. The player selects “Exit Game” button

Exceptions:

Priority:

Medium-High priority. It is important to have a reliable way to exit the application other than force-closing it.

Use case:

Pause game

Primary Actor:

Player, System

Goal in context:

To pause the game during gameplay so that all movement of both player, rewards, and enemies temporarily stops until the game is unpaused.

Trigger:

Player hits a specified key during gameplay (most probably 'esc') before the player has exited the game.

Scenario:

1. The player has started the game
2. The main menu has loaded
3. The player selects the "Start Game"
4. The player is loaded into the starting tile of the game map and the game is started.
5. The player hits the specified key (most probably 'esc')
6. The pause menu is displayed with options to return to the main menu or continue the game.

Exceptions:

1. The player is not in the game-play portion of the game (where the map is displayed and the game loop is actively being run).
2. The player is already in the pause menu, in this case the button should return the player to the game.

Priority:

Low priority. Pause is an additional quality of life feature that does not affect the gameplay or general experience of the game.

Use case:

End game via main exit

Primary Actor:

Player, System

Goal in context:

To exit the game once all regular rewards have been collected

Trigger:

Player moves the character to the block adjacent to the exit door. Player then moves the character one block right to exit the game by pressing the left movement key "d".

Scenario:

1. The player has started the game
2. The player has collected all of the regular rewards in the map without letting their score drop below zero.
3. The exit door lights up, indicating that it is now available for use.
4. The player moves the character to the block adjacent to the exit door.
5. The player pushes the key that corresponds to moving right.
6. The game displays a "Game Over" message along with the score that the player earned. Below the score is a button "Return to Main Menu" that when pressed will return the player to the main menu.

Exceptions:

1. The player has not collected all of the regular rewards.
2. The player has already exited the game by colliding with an enemy
3. The player has already exited the game via their score going below zero.

Priority:

High priority since this is the most reliable method of exit. Need to implement it before the other methods of exit so that we can efficiently exit the game.

Use case:

End game via score < 0

Primary Actor:

Player, System

Goal in context:

To exit the game by a loss where the loss is due to the player's score dropping below 0 at any given moment during gameplay.

Trigger:

Player's score has dropped below zero due to an and/or combination of taking too much time or the player's character running into too many stationary enemies (in this case the stationary enemies are cardboard box traps).

Scenario:

1. The player has started the game
2. During gameplay, before the player has exited the game via the main exit that opens after collecting all rewards, the player's score drops below zero from taking too much time or the player's character running into too many stationary enemies.

Exceptions:

1. The time penalty should not take place once all regular rewards have been collected. However it should still be possible for the score to drop by running into stationary enemies.

Priority:

Low priority. Needs to work before final release of the game but as long as the "main-exit" option has been implemented all other aspects of the game can be implemented without issue.

Use case:

End game via player's character running into a moving enemy (human)

Primary Actor:

Player, System

Goal in context:

To exit the game by a loss where the loss is due to the player's character having a collision with the moving enemy character (human) during gameplay.

Trigger:

During any time of gameplay before the player has exited the game the player's character makes contact with any of the human enemy characters by pressing one of the (w, a, s, d) keys.

Scenario:

1. The player has started the game
2. During gameplay, before the player has exited the game any other way, the player's character collides with an enemy human character.

Exceptions:

1. The only exception to this is if the player has already exited the game.

Priority:

Low priority. Needs to work before final release of the game but as long as the "main-exit" option has been implemented all other aspects of the game can be implemented without issue.

Use case:

Lose score via player's character colliding with stationary enemy (cardboard box trap)Primary

Actor:

Player, System

Goal in context:

To punish the player by subtracting a specified number of points from their current game score when their character collides with a stationary enemy.

Trigger:

During any time of gameplay before the player has exited the game the player's character makes contact with any of the stationary enemies by pressing one of the (w, a, s, d) keys.

Scenario:

1. The player has started the game
2. Anytime during gameplay before the player's character has exited the game the player presses a movement key (w, a, s, d) such that the player's character collides with a stationary enemy.

Exceptions:

1. The only exception to this is if the player has already exited the game.

Priority:

Medium priority. Key concept of the gameplay so this should be implemented along with the basic aspects of the scoring system (positive rewards).

Use case:

Gain positive score by colliding with a regular stationary reward on the map during gameplay.

Primary Actor:

Player, System

Goal in context:

To give a specified amount of positive score to the player when their character collides with a regular stationary reward during gameplay.

Trigger:

During any time of gameplay while there are still one or more regular rewards left on the map the player collides with a stationary regular reward by pressing one of the (w, a, s, d) keys.

Scenario:

1. The player has started the game
2. Anytime during gameplay before the player's character has exited and before the player has collected all regular rewards the game the player presses a movement key (w, a, s, d) such that the player's character collides with a stationary regular reward.

Exceptions:

1. The only exception to this is if the player has already exited the game, which in this case would only be possible via a loss from the player's score dropping below zero or colliding with a moving enemy.

Priority:

Medium priority. Key concept of the gameplay so this should be implemented along with the basic aspects of the scoring system.

Use case:

Gain bonus score by colliding with the bonus reward (red dress racoon) while it is visible on the game map during gameplay.

Primary Actor:

Player, System

Goal in context:

To allocate a “bonus score” that will be added to the player’s score at the end of the game once the player has successfully exited without loss if the player’s character collides with the bonus reward during gameplay.

Trigger:

During any time of gameplay while the player has not exited the game the player’s character collides with the bonus reward while it is visible on the map by pressing one of the (w, a, s, d) keys.

Scenario:

1. The player has started the game
2. Anytime during gameplay before the player’s character has exited the player presses a movement key (w, a, s, d) such that the player’s character collides with the bonus reward while it is visible on the map.

Exceptions:

1. The only exception to this is if the player has already exited the game.

Priority:

Low-Medium priority. Important aspect of gameplay but regular reward and regular enemies should be implemented before the bonus reward.