

### ***Use Case 1: move the main character***

*Primary Actor:* the player

*Goal in context:* To move the character towards the end of the maze in order to play the game

*Preconditions:* Access to keyboard

*Basic Flow:*

1. The player will open the game
2. The player will press start at the game start screen
3. The player will use the arrow key buttons on their keyboard to move the main character

*Trigger:* the player decides to start the game and play

*Exceptions:*

1. The player's mouse is not working or the start button on the screen is unreachable
2. The player uses the wrong keys
3. The switches on the player's keys aren't working properly

*Priority:* High priority, basics that are needed to play the game

*Frequency of use:* very frequent

*When Available:* in gameplay

### ***Use Case 2: a player encounters the squid punishment***

*Primary Actor:* the player

*Goal in context:* block the player's screen completely, only revealing the cell that the main character is on for 5 seconds.

*Preconditions:* the main character has touched the squid

*Basic Flow:*

1. The player will press start at the game start screen
2. The player will use the arrow key buttons on their keyboard to move the main character
3. The main character will play the game and move around
4. The main character will touch the same cell as the squid character
5. The main character will get splashed with ink from the squid. From the player's perspective, their screen will turn black (except for the cell that the main character is on)
6. After 5 seconds has passed, the screen will return back to normal

*Trigger:* the player moves to a cell containing squid

*Exceptions:*

1. The player's mouse is not working or the start button on the screen is unreachable
2. The player uses the wrong keys
3. The switches on the player's keys aren't working properly
4. The game fails to recognize that the main character and the squid are on the same cell
5. There is no visual effect on the maze after the main character encounters a squid.

*Priority:* Moderate priority

*Frequency of use:* infrequent

*When Available:* in gameplay

***Use Case 3: after the game comes to an end, main character exits the game***

*Primary Actor:* the player

*Goal in context:* the player has collected all of the regular rewards (normal and bonus) and will now exit the maze to complete the game

*Preconditions:* player has either lost all their health and game came to an end or the player has reached the treasure chest and completed the game

***Basic Flow:***

1. The player will press start at the game start screen
2. The player will use the arrow key buttons on their keyboard to move the main character
3. The main character will collect all of the map rewards without touching an enemy's cell
4. The main character will collect all of the key rewards without touching an enemy's cell
5. The main character will move towards the end cell, distinguished by the coral on the screen
6. When the main character has touched the end cell (after collecting all of the key rewards), the coral will open and the main character will be able to touch the treasure chest
7. The screen will display the win screen, which will include the player's elapsed time and score. Three stars at the bottom will indicate how many bonus stars a player has collected, on top of just completing the game

*Trigger:* the player has finished the game and is willing to exit the game

***Exception:***

1. The player touched a scuba diver or shark.
2. The game crashes and the player is unable to continue.
3. The player's mouse is not working or the start button on the screen is unreachable
4. The game doesn't recognize that the character has reached the end cell and the win screen is never displayed
5. The game doesn't recognize that the character hasn't collected all of the rewards and accidentally ends the game early
6. The exit button on the screen doesn't work

*Priority:* High priority

*Frequency of use:* moderately frequent

*When Available:* in gameplay

**Use Case 4: player collects a normal reward (pieces of a map / keys)**

*Primary Actor:* the player

*Goal in context:* The player's score will increase with respect to the reward it collects.

*Preconditions:* The game has started and gameplay is in action. The player has not encountered an enemy cell yet.

*Basic Flow:*

1. The player will press start at the game start screen
2. The player will use the arrow key buttons on their keyboard to move the main character
3. The main character will touch the same cell as normal reward is located and the score increment

*Trigger:* Player touches a cell containing a reward

*Exception :*

1. The game does not recognize the main character has touched the reward
2. The game crashes and the player is unable to continue
3. The score does not get incremented after collecting the reward
4. The score is incremented by the wrong number of points
5. The reward doesn't disappear after being collected

*Priority:* High priority

*Frequency of use:* very frequent

*When Available:* in gameplay

**Use Case 5: scuba diver moves towards player**

*Primary Actor:* the scuba diver

*Goal in context:* The player will lose and the game ends.

*Preconditions:* The game has started and gameplay is in action

*Basic Flow:*

1. The player will press start at the game start screen
2. The main character will move around and the game has begun
3. The scuba diver will begin at a predetermined cell, at least 5 cells away from the start cell
4. The scuba diver will move towards the player until it reaches the cell that the player is on.
5. The hearts that indicates the player's health will turn from red to clear to show that the player has touched the enemy cell
6. The game over screen will appear for the player to decide whether to try again or exit

*Trigger:* The scuba reaches the same cell the player is in.

*Exceptions:*

1. The player dies.
2. The game does not recognize that the scuba diver and the main character were on the same cell
3. The player exits the game.
4. The shark and the scuba diver share a same cell at the same time, as this would fail to meet the requirements of the game

*Priority:* High priority

*Frequency of use:* Frequent

*When Available:* In gameplay

### ***Use Case 6: The shark collides with the main character***

*Primary Actor:* the shark

*Goal in context:* The player will lose and the game ends.

*Preconditions:* The game has started and gameplay is in action

*Basic Flow:*

1. The player will press start at the game start screen
2. The main character will move around and the game has begun
3. The shark will begin at a predetermined cell, at least 5 cells away from the start cell
4. The shark will move x number of cells horizontally at a constant speed.
5. If the player and the shark share the same cell, the game is over and the player loses
6. The hearts that indicates the player's health will turn from red to clear to show that the player has touched the enemy cell
7. The game over screen will appear for the player to decide whether to try again or exit

*Trigger:* The shark reaches the cell player is in.

*Exceptions:*

1. The player dies.
2. The game does not recognize that the shark and the main character were in the same cell.
3. The player exits the game.
4. The shark and the scuba diver share a same cell at the same time, as this would fail to meet the requirements of the game

*Priority:* High priority

*Frequency of use:* Frequent

*When Available:* In gameplay

