USE CASES

Use Case: Start the game
Primary Actor: Player
Precondition: Game program has already been opened and the current screen is the Main Menu.
Goal in context: Prepare and populate the board for the player to play.
Trigger: Player presses the new game button at the Main Menu.
Scenario:
- Player opens program.
- System displays Main Menu.
- Player presses "new game" button from Main Menu.
- System creates a X by Y board and populates the tiles with objects.

Exceptions:
- Player is already playing a game.
- Game program is not open.
- Player is not in Main Menu.

Priority: Essential, Must be implemented.
When available: First increment.
Frequency of use: Almost everytime program is opened.

Use Case: View high scores list
Primary Actor: Player
Precondition: Game program has already been opened and the current screen is the Main Menu.
Goal in context: To view the list of top ten recent high scores in the game.
Trigger: The player decides to view the high scores.
Scenario:
- Player opens program or exits from an active game to Main Menu.
- System displays Main Menu and the "High Scores" button.
- Player presses "High Scores" button from Main Menu.
- System displays the top ten high scores in the game window.

Exceptions:
- Player actively playing a game.
- Player is not in the Main Menu.

Priority: Non essential, it's a complementary feature.
When available: Final iteration
Frequency of use: Rare

Use Case: Collide with trap/punishment enemy.
Primary Actor: Player
Precondition: Player is actively playing a game.

Goal in context: To land on a tile containing a trap/punishment and incur punishment.
Trigger: The player moves onto a tile containing punishment/trap.
Scenario:
- The player starts the game.
- The player moves forward 5 tiles.
- On the fifth tile there is a punishment.
- The player faces the punishment and loses the game because he didn't have enough score.

Exceptions:
- Player is not on the same tile as the trap.

Priority: Medium, priority, to be implemented after basic functions.
When available: Second iteration
Frequency of use: Occasional

Use Case: Reach the level exit.
Primary Actor: Player
Precondition: Player has collected all regular rewards.
Goal in context: To enter the exit and advance to the next level of the game.
Trigger: Player collects the final regular reward on the map and has a positive score.
Scenario:
- The player has collected the final regular reward on the map.
- This triggers the exit door to spawn on one of the edges of the map.
- The player travels to the exit door and moves on to the next map.

Exceptions:
- Score is negative.
- The player has not collected all regular rewards.

Priority: High, Core function of the program.
When available: First iteration
Frequency of use: High

Use Case: Close game
Primary Actor: Player
Precondition: The player is in the main menu.
Goal in context: The player is safely able to exit the game and have their score saved if its in the top ten.
Trigger: Player presses the "Exit" button on the menu.
Scenario:
- The player is in the middle of the game.
- The player pauses the game and exits to "Main Menu".
- As the score for this iteration is in the top ten, the score is saved.
- Afterwards, the player exits the game by pressing the "Exit" button on the main menu.

Exceptions:
- The player is still in game.
- The player not in the main menu.

Priority: Medium priority, to be implemented after basic functions.
When available: Second iteration
Frequency of use: Frequent

Use Case: Pause the game
Primary Actor: Player
Precondition: The game must be started, and the player must still be alive/score either 0 or above 0.
Goal in context: To pause the game so everything in the game stops and the pause menu appears.
Trigger: The player presses the pause button.
Scenario:
- The game has started, and the player is still alive.
- The player presses the escape key.
- The system stops updating the game, and shows the pause menu.

Exceptions:
- The game has ended.

Priority: Medium
When available: Second iteration
Frequency of use: Frequent

Use Case: Restart the game.
Primary Actor: Player
Precondition: The game is in the pause menu.
Goal in context: Player restarts the game.
Trigger: Player selects restart in the pause menu.
Scenario:
- Player pauses the game.
- Player selects "restart".
- The system resets the state of the game.
- The system loads a new board and displays it.
- The system places the player, rewards, and enemies on the board.

Exceptions:
- The game has ended.
- The player is not in the middle of a game.

Priority: Low
When available: Final iteration
Frequency of use: Moderate

Use Case: Collide with moving enemy
Primary Actor: Player
Precondition: Program has started and there is a active game ongoing.
Goal in context: To collide with enemy and lose the game.

Trigger: The player moves onto a tile which the enemy is on or the enemy moves onto a tile that the player is on.

Scenario:
- Player starts the game.
- The player moves forward three tiles.
- While stationary on the tile, the enemy moves onto the same tile as the player.
- They have collided and the player has died and lost the game.

Exceptions:
- Player is not on the same tile same enemy.
- Player and enemy are both on the exit tile.

Priority: Moderate priority, to be implemented after basic functions.

When available: Second iteration

Frequency of use: Frequent

Use Case: Move

Primary Actor: Player

Precondition: Player must be in an active game.

Goal in context: To move an adjacent tile.

Trigger: The player presses one of the keys to move in the direction desired.

Scenario:
- The player presses the direction key.
- The player's character moves in the direction.

Exceptions:
- Player must have traversable tiles adjacent to them.

Priority: High, Core function of the program.

When available: First iteration

Frequency of use: Frequent

Use Case: Change settings

Primary Actor: Player

Precondition: Program is open, current display screen is the Main Menu.

Goal in context: To change audio settings.

Trigger: Player clicks settings

Scenario:
- Player pauses the game.
- Player clicks settings.
- System displays whether audio is on or off.
- Player clicks audio.
- Audio changes from off to on, or from on to off.

Exceptions:
- Player is not in a game.

Priority: Low

When available: Final iteration

Frequency of use: infrequent

Use Case: Exit to Main Menu
Primary Actor: Player
Precondition: The player has paused the game by pressing the "Escape" button.
Goal in context: To exit to the Main Menu from a game in progress and save their score if it's in the top ten.
Trigger: Player presses the "Exit to Main Menu" button in the pause screen
Scenario:
- The player is the game.
- The player pauses the game by pressing the "Escape" button and then presses the "Exit to Main Menu" button.
- System saves the current score if it's in the top ten, and then switchs to the main menu.

Priority: Low
Exceptions:
- Player is not in a game.

When available: Second Iteration
Frequency of use: Moderate