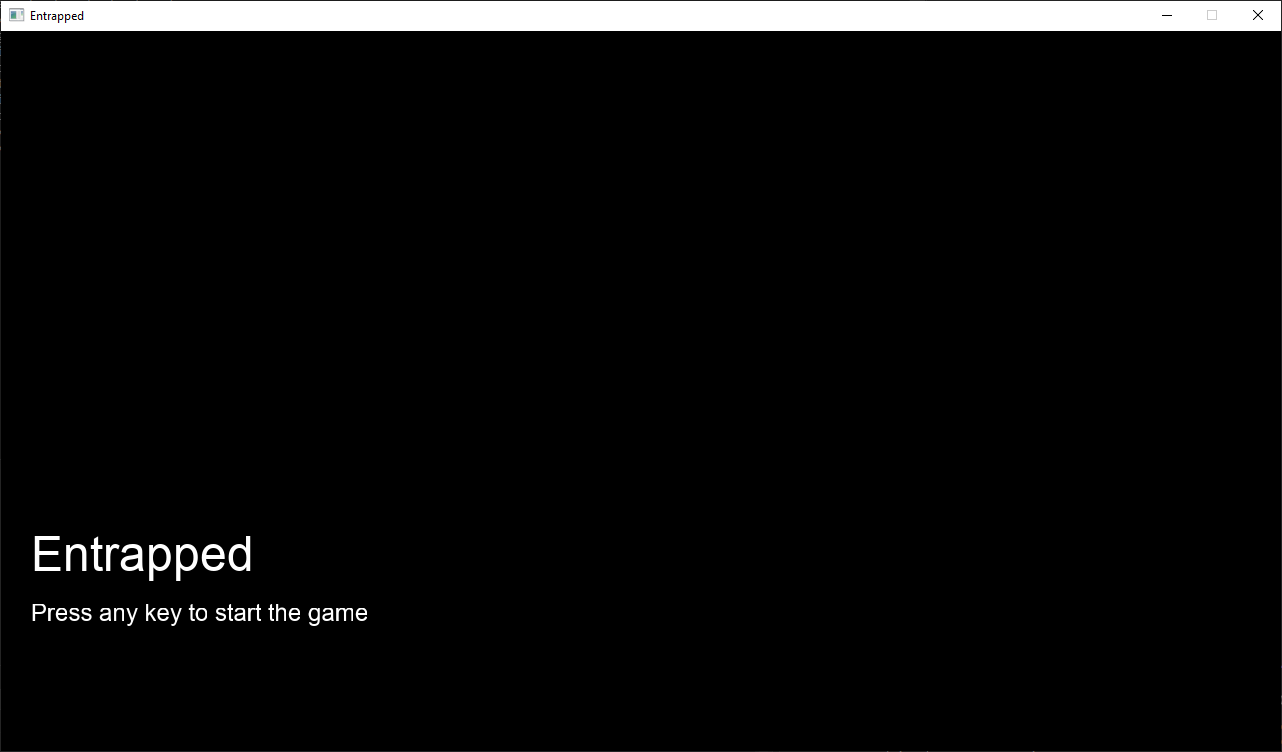
# Test Plan - M1

The expected behavior of M1 submission is as follows.

## Main menu



### Layout

* The game title "Entrapped" should appear at the bottom left of the screen.
* A smaller prompt text "Press any key to start the game" should appear below the game title.

### Operation

* Press any key on the keyboard and release to leave the main menu and enter the game scene.
* Mouse click not included.

## Game scene



### Layout

* The player (the entity on the left with green helmet and a gun) and the enemy (the entity on the right in yellow) will be spawned on a maze-like map.
* The map is tiled in 48x48 grid. The lighter part of the map is wall and the darker part is ground.
* The map is enclosed with walls.
* A looping background music will be played in the back.

### Collision

* The wall, the player and the enemy will collide with each other.
* Entities' movement will be restricted if they collide with the wall. In particular, they will not be able to move into the wall.
* When the player collide with the enemy, the player will receive damage and play damage effect
* The player can overlap with the enemy

### Damage effect

* When the player overlaps with the enemy, the player will keep receiving damage.
* The player's sprite will be tinted red and transparent.
* There is an internal cooldown for how frequent the player can receive damage. The cooldown is shown by a linear interpolation between the normal state of the sprite and the damaged state of the sprite i.e. the red and transparent version.

### Player movement

* Press WASD to move the player
  + W to move the player up
  + A to move the player left
  + S to move the player down
  + D to move the player right
* Press space to dash, the player will move with double velocity for a short period.
* Hold left shift to run, the player will keeping moving in double velocity until the key is released.
* Holding keys for adjacent directions will make the player move diagonally
* Holding keys for opposite directions will stop the player from moving along that specific direction
* Player cannot walk through the wall.

### Enemy movement

* Enemy will randomly wander on the ground. Every certain period, the enemy will pick a random direction to move. The velocity of the enemy is fixed.
* Enemy cannot walk through the wall.

### Creative features

#### Simple rendering effects

* The damage effect shader will change the player's color and opacity over time based on an internal cooldown. The current cooldown is 0.5 second.

#### External integration

* Freetype is integrated to render the text in the main menu. The installation should work on windows and mac

#### Basic integrated assets

* The following assets are created and processed
  + The tiles for ground and walls. Tilesets are obtained on itch.io and processed into tiles of 48x48 in size. These tiles are rendered as textured squares on screen based on the map grid that we defined
  + The player's animated sprite. The frames of this sprite are drawn as a textured rectangle and animated in game by switching texture while the player is walking. This asset is drawn by us.
  + The enemy sprite. The texture is obtained on itch.io. The enemy sprite is drawn as a textured rectangle.