

1. A one-page statement describing your overall plan and the description of your customized game

We will create a desktop application that the player can open, the login user-interface will be displayed and the player will need to register for an account if they wish to keep track of their scores. (potential guest instance? If the player doesn't want to register but score will not be kept)

Once the player logs in, the start menu interface will be displayed with the 'start game', 'settings' and 'Exit Game' buttons. The 'start game' button will cause the system to create a new instance of the game along with the corresponding cells, 1 main character and moving enemies. There should be a display of time and score on the top left corner of the screen.

The cells may be empty or contain either reward, punishment or barrier. The reward and punishment should only be removed and applied to the score if the main character move to the space and should not be altered if a moving enemy is in the cell (there should be a condition to check whether the target in the cell is the main character or a moving enemy)

The color labels of the cell will be as follows:

- normal empty cell (character can move to): white
- regular rewards: green (10 points)
- special rewards: blue (20 points)
- punishments: red (-15 points)
- barrier: yellow
- exit: black

The player should not be allowed exit and win (even if they move to the exit cell) until all regular rewards (green) are collected. Blue cells offer additional points but are not required to exit and win the game.

The game over user-interface will be displayed if the score at the top left falls below 0 or if a moving enemy catch up to the main character

If the player wins the game, the user-interface with 'good job' message will be displayed and the time and score will be added as a new row in the leaderboard

If time-permitting, we plan to implement a 'settings' interface that will allow the user to adjust volume of some generic background music and text size of score and time.

The 'Exit' button at both the start interface and game ending interface will log out of the player's account and close the desktop application.