Report:

Firstly, in terms of extension, I have developed a game screen that allows users to choose their preferred character and instructions on how to play the game. Then I implemented a function for weapons and enemies. The weapon function allows the player to attack and kill enemies, while the enemy function allows enemies to attack and potentially kill the player. Due to this, the game is quite challenging for users to escape from enemies without getting killed, which makes it a bit more interesting than a normal game.

Secondly, the bits that I found difficult to do was the animation of coin spin where my drawcoins function takes five arguments: coinItemX and coinItemY specify the x and y coordinates of the centre of the coin, coinSize specifies the size of the coin, coinFound is a boolean value that specifies whether the coin has been found or not, and coinSpin specifies how much spin the coin is applied to.

Thirdly, the function checks to see whether the coin has been found. The coinSpin value and the coinSize are used to determine how much spin should be applied to the coin if it has not already been determined. It then draws the coin using a series of ellipse and quad functions to create a circular shape with shading and highlights.

Finally, the skills that I learned while completing my game were the factory and constructor patterns, understanding object-oriented programming, problem-solving and debugging. At first, it was complex and really take a lot of time but after a few practices, I was able to comprehend and can do it effortlessly.

Overall, this game project has allowed me to apply and improve their programming skills while creating an enjoyable and challenging game experience.