**A KNIGHT’S ORDEAL CODE BREAKDOWN**

This is an action/platformer game currently in development using Unreal Engine 4 where the player has to collect 5 coins in each level to clear it and open a portal to the next level, whilst avoiding traps and fighting enemies.

Below is a short breakdown of some of the features and mechanics in the game so far:

Text

Description automatically generated**Attacking**

The player can only attack when they have equipped a weapon. Once the weapon is equipped and the attack button is pressed, the character will cycle through 4 attack animations that I have placed in a switch statement and are selected at random using the function RandRange().

**Text

Description automatically generatedMovement/Sprinting**

To handle the movement of the player character I used an enum class and set 3 movement status’ Normal, Sprinting and dead which disables all movement of the player when in this state.

Text

Description automatically generatedWhen the sprint button is pressed the enum class for sprinting will check which state of sprinting the player is in which I have set 4 of to be checked. Each state is colour coded based on how full the stamina bar is at certain points (Exhausted is excluded from this as it is set when the stamina bar is empty)

Yellow is for the normal state:



Orange is for the below minimum state:

****

Red if for the exhausted recovery state:



**Text

Description automatically generatedEnemies**

The enemy AI in the game are also handled using an enum to determine the state they are in depending on where the player is in relation to them. Idle is the default state for each enemy and will be set on starting the game. Move to target will be set if the player steps within the enemy’s detection sphere and will pursue the player. Attacking will be set when the enemy is within a close range of the player character and is able to hit them.

**Text

Description automatically generatedSpawn volume**

I created a spawn volume to spawn in different enemy types at random based on whether the spawn array number is higher than 0 which is checked using an if statement.