

## Comp 313 Assignment 1

**Game:** Special Mario

**Inspiration:** Mario

**Link to video:** [https://drive.google.com/file/d/1Br9weOZ9FaEvfpZ0AiXIMt0yWj-Fkn\\_a/view?usp=sharing](https://drive.google.com/file/d/1Br9weOZ9FaEvfpZ0AiXIMt0yWj-Fkn_a/view?usp=sharing)

### Introduction

This game is created using blueprints and a C++ class from Unreal engine. The main aim of this project was getting to familiarize yourself to unreal engine tools and blueprints. I included the following features in my game:

- Control a character on screen
- Change score on screen
- Create/destroy objects
- Move NPCs around
- Play sounds
- Restart a level
- Show a final screen
- Has a main menu and a pause menu.

I mainly used blueprints while making this game. It is because as a coder I have never came across with using blueprints and I wanted to try something new. I am also not that familiar with C++ programming and creating a game with blueprint seemed to be much easier compared to C++ class.

I used a side scroller blueprint template to create this game. My game has 2 levels with a Main menu and a pause menu. Since I tried cloning the Mario game, the rules to play this game are same which are as follows:

- Score updates each time you have a coin.
- Character gets killed if there is sideways contact with the enemy.
- Kills the enemy either by shooting or stepping on top of it.
- Character can only shoot after the size of the character get bigger after having the mushroom.

I used various collision objects to add new events when the main character collides with any actor. E.g. the coin disappears when the character collides with the collision sphere. I have also tried using few widgets to update score or provide options to the player. I added some Mario games audio in the game to give more Mario vibe in the game.

Overall I can say that I enjoyed doing this assignment and learned a lot of different process and tools to create a game using unreal engine.