

VGP233 Programming for Game Engines

Assignment 3

Fall Guys with a Twist!

Estimated hours: 8 hours

Assignment Goals:

- Understand and be comfortable with creating a basic 3D game
- Practice and implement different control schemes for a basic 3D Game
- Understand how to use Probuilder to quickly create level prototypes in Unity

Assignment Overview

You are tasked to create your own **Single Player Fall Guys** game. The following are the basic requirements your game must have.

- **Starting Point** where your player starts the game.
- **End Point** where your player needs to reach to win the game.
- **Obstacle Course built using Probuilder**. Make sure that the obstacle has enough interesting and engaging obstacles for the player to try navigating across.
- **Checkpoints**. If the player falls off the level, they should respawn back to a certain point in the game, depending on how far they have traveled.
- **Third Person Camera**. The camera should follow the player from behind.
- **Third Person Player Controls**. Player movement will be done by the keyboard and mouse.
- **Obstacles**. These obstacles can push the player off the map
- **Timer**. The timer will keep track how long the player has been playing. Once the player reaches the finish line (End Point), the timer will stop, and you must display the Final Time of the player. You can feel free to leave remarks based on how fast the player has finished it.
- **Static Game Resolution**: 1920x1080

For above and beyond requirements, please check the Marks Breakdown section.

Assignment Hand-in

- Unity Project zipped and Uploaded to Omnivox
- If over 25MB, please submit to the school's Assignments Folder, AND indicate in Omnivox that it's there.

Marks Breakdown

| # | Criteria | Mark | Total |
|------------------|---|------|-------|
| 1 | Basic Mechanics of the Game is implemented and Working Properly alongside the Player Controls and Camera. | | 20 |
| 2 | Timer has been implemented and keeps track of the finish time the player has achieved. | | 20 |
| 3 | The game is fun to play, and the obstacle course has a good variety of obstacles the player must avoid. | | 20 |
| 4 | The game runs on 1920x1080 Window Size, with no UI clipping out of bounds. | | 10 |
| 5 | A checkpoint system is implemented and can bring the player back to the play area when they fall off a ledge. | | 15 |
| Above and Beyond | | | |
| B1 | Some art assets and polish implemented and helps reinforce a theme to the game. | | 10 |
| B2 | There are horizontally moving platforms the player can ride on. | | 5 |
| Penalties | | | |
| | Bad Scripting Practices (depending on severity) Miscellaneous bugs not related to the criteria above (depending on severity) | | |
| Total | | | 100 |