Exercises - Course Introduction

Exercise 1 - Explore a Microgame

Go through one of the official In-Editor tutorials for a Unity Microgame. There are a range of Microgames to choose from (FPS, racing, 2d platformer, LEGO). Each microgame has a series of creative mods that let you enhance the experience in various ways. Experiment with the ones you find most interesting.

Consider:

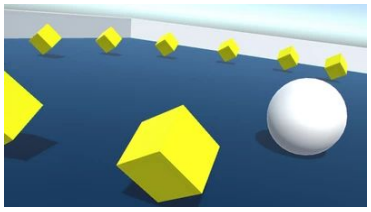
- *What is the difference between a GameObject and a Component?*
- *What is a prefab?*
- *What is the shortcut to enter play mode?*
- *What happens if you configure components while in play mode?*

Exercise 2 - Explore The Unity Editor

Go through the official Unity Editor tutorial for a quick rundown of the essential features of the Unity Editor.

Consider:

- *What five key areas do the Editor interface consist of?*
- *What is the purpose of Scenes?*
- *How do you navigate in 3D space in the Scene view?*
- *What is the Package Manager used for?*



Exercise 3 - Roll-a-ball

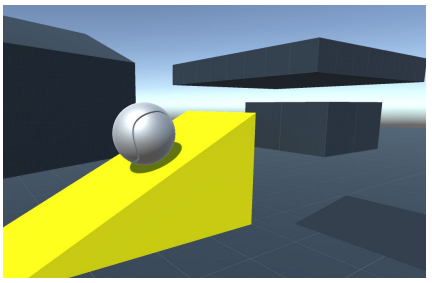
Go through this roll-a-ball tutorial to “get rolling” with Unity.

Consider:

- *How does the ball move? Can you think of other ways to make the ball move?*
- *How can you adjust the behavior of the ball - e.g. how high it jumps or how fast it moves?*

Exercise 4 - An Obstacle Course

Create an obstacle course for the ball. Remember to add a goal!



Consider:

- *Use assets from the Asset Store to add some flavor to the game!*
- *If you want more advanced geometry, have a look at the Probuilder package under Window > Package Manager*

Exercise 5 - Spectators

Create a character consisting of 3D Objects and convert this character into a prefab. Using the prefab, make a few copies of the character in the scene view, and put them as spectators around the obstacle course.

Consider:

- *Make sure you are properly nesting the GameObjects in the Hierarchy*
- *Have you created new materials to change the color of the GameObjects?*
- *Normally, complex 3D models are not created in Unity, but imported from 3D modelling software like Blender.*

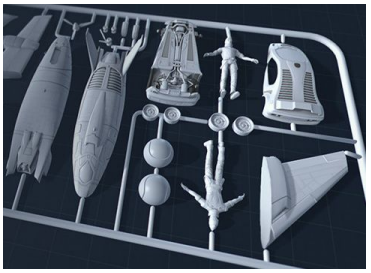
Exercise 6 - Build and Share

Build a WebGL version of your roll-a-ball game and share it online for others to test and play.

Consider:

- *You will need the WebGL Publisher package to share your game on Unity's website.*
- *Alternatively, you can host the static files on a web server (GitHub Pages, itch.io, simmer.io or Microsoft Azure, etc. all offer free static file hosting).*
- *For more info on publishing for WebGL, see here.*
- *What other ways do you have to publish your game?*

Exercise 7 - Anything Goes!



Use everything you have learned to create your own little game utilizing any of the template assets and/or assets from the Asset Store. Once done, build and share a WebGL version of the game for others to try online!

Consider:

- *Can you describe the game using the terms mechanics, dynamics and aesthetics? If your game is too simple, look at other games that you have played, and try to describe them.*