Basic Game

This first lesson will teach you how to use and download Unity assets, first person shoot mechanism using Unity’s first person controller, item pick ups (ammo), and basic enemies (dummies). I will touch up on how to create movement similar to the roll a ball tutorial, but that kind of movement will not be used for this tutorial because the movement mechanics will already be there from the first person controller.

When working on you own it is encouraged to Google for the most part when you hit a speed bump for all of these tasks, mainly because when you start working on the game for the club you will know how to complete your task without total guidance from the officers. A useful link to use is <https://docs.unity3d.com/ScriptReference/index.html>. This contains the Scripting API for Unity which is useful in learning how to write certain lines of code and may contain an example on how to use it. That being said though, if you are really stumped don’t be afraid to reach out to us for help.

Task

Your first task is to use what you have learned from the lesson on Friday to create a basic “game”. This game will involve a fps that has to shoot dummy enemies, but also have a certain amount of ammo. When the player runs out of ammo they must go and pick up an ammo pack to finish defeating the rest of the enemies.

Requirements

* Have a FPS (recommended you use Unity’s first person controller)
* Have a Shooting mechanism
* Have an ammo amount
* Ammo amount must be less than the amount of enemies in the game
* Ammo pickups to refill ammo

Optional (if you want to be an overachiever)

* UI showing ammo amount
* UI saying something like “OUT OF AMMO”
* UI saying “You Win” when all enemies defeated

Tips/Keywords

* Input.GetKey…
* Vector3...
* transform.position…
* OnCollisionEnter(Collision collision)
* Rigidbody
* Destroy
* Create public variables so you can see them in the inspector

Recommended Script outline (if using unity fp asset)

* Shooting Script (includes ammo pickup)
* Enemy Script
* If you are doing the UI
  + Some kind of manager (keep track of enemies left)
  + Something to keep track of the Players ammo amount for UI

Helpful Links

<https://docs.unity3d.com/ScriptReference/Vector3.html>

<https://docs.unity3d.com/ScriptReference/Transform-position.html>

<https://docs.unity3d.com/ScriptReference/Rigidbody.html>

<https://docs.unity3d.com/ScriptReference/Collider.OnCollisionEnter.html>