Assignment 2: Level Building in Unity

In VR, the environment around you can have a significant impact on the user's experience, so lets learn how to build the environment. If you missed the in-class demo or need a refresher, you can follow this video tutorial to get yourself acquainted with the editor:

https://www.youtube.com/watch?v=ozL-h75vazQ

We also recommend you take a look at this Unity tutorial to understand all of the sections of the editor:

https://docs.unity3d.com/Manual/LearningtheInterface.html

In this assignment, your job is to build a scene in VR. Because we want your scenes to be a little more interesting than plain cubes, we have provided you with some example art assets that you will be able to use in constructing your scenes.

For this assignment, you will use the example asset packs that we have provided, and build a scene for this. To import the asset packages:

1. Download the **.unitypackage** file with your chosen assets
2. Look at the top bar and select **Assets** -> **Import Custom Package**
3. A file finder window will pop up, find the location of the **.unitypackage** file and select it.
4. Another window will pop up with a list of items. Select the button that says **Import**
5. This may take a second. Once it finishes loading, look in the **Project** tab in the editor, and you should notice a new folder bearing the name of your unity package

To insert objects into your scene, drag and drop them from the **Project** tab into the **Scene** view. You can then use the manipulation tools to move them around.

As you build your scene, it is important to keep scale in mind. How big are the objects in relation to the user? A good way to test the scale is by stepping into VR and testing for yourself. But in order to do this we need to import the oculus library.

For this we will need to do two things:

a. Import the Oculus integration package:
    1. At the top of your screen find **Window -> Asset Store**
    2. Search the Asset store for **"Oculus Integration",** (should be first result) and select
    3. Hit the **Download** button. It will take a few seconds to finish.
    4. Once it has downloaded hit **Import**, and follow the same process as before
b. Install the Oculus Desktop Package
    1. At the top of your screen find **Window -> Package Manager**
    2. Find the **Oculus(Desktop)** package and hit **Install**

To test in VR, Open the new Oculus folder, and find **VR/Prefabs/OVRCameraRig.** Drag and drop this into your scene, and hit play with your headset plugged in. You should be able to look around with your headset on and get a feel for your scene.

Requirements:

For this project we ask you to have the following:

- Create a room that is at least 15 x 15 ft. This can be a rough estimate, but it needs to be big enough to move around
- Room should be enclosed, by a floor, windows, walls, and a ceiling. The package contains stairs as well so if you would like, you may have multiple floors, so long as they are connected and accessible
- Populate the room with at least 10 props. Try to choose them with potential interactions in mind (ex. a table with an object that you could pick up). The asset pack has a lot of cool props so be creative with what you choose
- Make sure that you can move through the environment. Make sure that paths you may move through are wide enough. Test this by moving the camera to different locations and observing the area around you in the headset
- Make sure that the room has a realistic sense of scale
- Use prefabs for repeated elements
- Keep your outliner clean and organized. Make sure objects are logically grouped in a way that is easy to find

When you are done with your scene please push and commit your changes to git with the commit message **hw2-final.** Pushing to git with this tag will signify that your assignment has been turned in. This assignment is due **Wednesday 10/9 @ 9:00 pm**.