31263 / 32004 Game Development Lab Week 1

Getting Started

1. Download the corresponding week's zip file from the Lab section of UTSOnline.
2. Unzip the project folder and open it in Unity.
3. Within the Weekly folders there are image and executable files starting with "Status…". These files give you a preview of what is expected for each point percentage below.
    a. If you are on Mac and the Status-100Percent App file won't run, hold control and click (right click) then select Open, if there is a security warning, acknowledge it an press open again.

Tasks

Points	Requirements

50% (P)	• Check that you have the correct version of Unity installed as per the instructions on UTSOnline.
	  ○ If you do not, you will instantly receive a 0% for this activity (and future ones), no exceptions.
	• Open up this week's activity by unzipping it and either
	  ○ Running Unity (or Unity Hub), going "Open Project" and then using the browser to select the "Lab Week 1 – Activity" folder. OR
	  ○ Using your file explorer to find the "BlankScene" scene file in the "Lab Week 1 – Activity" folder and double clicking it.
	• Once in Unity, make sure you have the "BlankScene" open by double clicking it in the Project Window (tip: search Learning the Interface in the Unity Docs or see the lecture material)
	• Rename "BlankScene" to "Week1Scene". Press Ctrl+s (Cmd+s for Mac) to save the scene.
	  ○ Notice that the project as whole (i.e. what is in the Project Window) is automatically saved. Pressing Ctrl+S just saves the scene and everything that is contained within it.
	• Customize the layout of your windows/views/panels by going to "Menu Bar->Window->Layouts" or by dragging each window's tab into a position that you want. Replicate the layout that is found in the screenshot called "Status-50Percent" (in the "Lab Week 1 – Activity" folder)
	  ○ In future activities, you should use a layout that works well for your preferences, but for this activity replicate the one in the image mentioned above.

70% (C)	• Create a new “empty” game object by using the menu bar at the top of the screen.
	• Create another empty game object by right-clicking on the Hierarchy View.
	• Rename these as Empty1 and Empty2.
	• Select Empty1 and change the Transform component in the Inspector view to have a position of (5.2525, 3, 0).
	• Do the same for Empty2 but move it to position (-5, -1.31, 0).
	  ○ We are looking for these precise values, so make sure they are correct.
	• Select the Rotation Tool from the top left of the screen (just above the scene view in “Status-70Percent”)
	  ○ When you do this, with Empty1 selected in the Hierarchy panel, you will see a gizmo of overlapping red, green, and blue circles which can be grabbed and dragged to manual rotate Empty1.
	  ○ Rotate Empty1 to be roughly (0, -80, 0), as shown in the Inspector view.
	• Now rotate and move the scene view itself so that when you select Empty1 you can see all of its rotation gizmo, but when you select Empty2 you can’t see any of its gizmo.
	  ○ Do not move the Scene view from this position for the rest of the activity. Again, we will be marking to make sure you have this type of scene view specifically to know that you have followed the instructions.

90% (D)	• Select Empty1 and add an AudioSource component.
	• Create a prefab of Empty1 and rename it FirstPrefab
	• Select Empty1 again and add a BoxCollider
	• Open FirstPrefab from the Project window to edit it
	  ○ Notice that the Scene view changes to isolate the prefab while it is being edited
	  ○ Also notice that the prefab has an AudioSource component but not a BoxCollider
	  ○ Add a SkinnedMeshRenderer component
	  ○ On that component, click the small circle icon next to the “Mesh” variable and in the pop-up box that appears, select a Capsule.
	  ○ Backout of the prefab editing screens to automatically save the prefab.
	  ○ Notice that Empty1 has taken the new SkinnedMeshRenderer component of its prefab.
	• Create a new prefab from Empty2 and call it SecondPrefab
	• Drag SecondPrefab into the Hierarchy panel to create a new instance of it
	• Add a BoxCollider to Empty2 and override all other instances of the prefab (hint: see the top of the Inspector window for Empty2)
	  ○ Notice that SecondPrefab in the project files and the instance of SecondPrefab in the scene both now have a BoxCollider component.

100% (HD)	• Create a new C# script called HelloWorld that every frame increments an int variable by 1 in the Update() method and prints it to the console using Debug.Log(), starting with 0. • Attach this to script Empty2 and press the Play button to see the output in the Console window.

Submission

When you complete the activity to the grade threshold that you want, you then need to:

1. Complete the the “Status-StudentSubmission.txt” file in the highest level of the project folder.
2. Remove all other “Status-…” files and folders to reduce the size of your project.
3. Zip the entire project folder.
4. Re-name the zip file to **“[student ID]-LabWeek[week number].zip”.**
5. Submit the zip file to UTSOnline for the associated link for this week in the Lab **before Monday 9am of the following week**.
6. Failure to follow any of these could result in a 0% mark for that week.
7. You will also **demo your submission to your tutor** at the **start of the following week's lab.**

If you finish the activity early, show it to your tutor before you submit it on UTSOnline so they can help you make some final corrections and mark it at that time.