Milestone 0 – Getting Started with Unity

Assignment Type: *Work individually. Refer to Canvas Course Syllabus->Course Policies->Academic Integrity for further details.*

For this assignment, you are to modify the "Roll-A-Ball" Unity Tutorial located at https://learn.unity.com/project/roll-a-ball

Use Unity version: <SEE SYLLABUS FOR REQUIRED VERSION NUMBER>

Make sure you follow the Unity Installation and Testing Canvas Module before beginning this assignment. You need build support for both OSX and Windows.

Instructions

First, read all these instructions. Then, complete the Roll-A-Ball tutorial.

When the narrator tells you how to create your scene, immediately confirm that your scene and project are saving to a location you are familiar with (e.g., <user>/Documents/<project_name>). You don't want your project saving to a temporary location or you could lose everything! There is a "save scenes" and a "save project" option. You should be using both commands regularly.

Next modify your game as follows:

- Add your name to the HUD (2D heads-up-display) of the game.
- Modify your project to show hidden meta data files: Edit->Project Settings:Version Control:Mode==Visible Meta Files
- Make one or more changes to the scripts. The changes should result in some visible change to the default tutorial game. For instance, change the capabilities of the ball (new movement, fire projectiles, etc.).
- Make one or more changes to the 3D graphics content of the game. The changes should result in some visible change to the game. For instance, add new objects to the level to make it look different.
- Build executables for both OSX and Windows with the correct naming conventions (see below)

Next create a detailed readme describing your changes and how the grader can observe the changes. Finally, package your assignment according to Syllabus section titled *Assignment Packaging and Submission* and the submission instructions below.

How to Build

Go to File->Build Settings. Add the desired scene. Assuming your scene is open (typical), choose "add open scene". In general, make sure all scenes for your milestone/game appear and are checked on the "scenes to build" checklist.

You will also want to make sure you name your build correctly as required by the submission instructions. You will *definitely* want to let Unity do the naming rather than trying to rename after the fact!
To name your build, go to Edit->Project Settings->Player->Product Name and type in: <LastName>_<FirstInitial>_m0

Using the method above also get the name of the window and currently running app correct.

You will use this same naming convention on M1-M4 but changing the numeral.

Now build for your platform (either PC or Mac). Create a directory called "Build" within your project directory when prompted for where to save. For PC: you'll get an exe and a data directory. both are important to preserve. For Mac: you'll get one single sparsebundle with everything inside. On Windows, a sparsebundle looks like a directory.

Test out your build by directly running the executable.

Now build for the other platform (either PC or Mac). You probably can't test it but that is ok. Add a zero-sized file named "UNTESTED" to this directory.

Note that the TAs may use your untested build for grading. However, if an unexpected discrepancy occurs the TAs will investigate further using the project or a different computer.

Putting your name on the HUD

Note that if you have already made a canvas, you can probably just add text to it for your name. But if you don't have a Canvas yet then you need to make one.

How to make a screen space overlay canvas with text:
File Menu: GameObject>UI>Canvas
(defaults to screen space overlay, which you want)
select the canvas in scene hierarchy
File Menu: GameObject>UI>Text
select the text in scene hierarchy
optionally set your view to 2D mode in your scene view for better view
set min/max anchors of text's rect transform to 0,1 (top left corner)
play with font type, size, color until appropriate
drag text box to top; resize box to fit your name if it's getting cropped
(turn 2d mode back off when you are done)

Submission:

If your zipped project is not too big, you can submit directly to Canvas. Otherwise, you should submit a private cloud hosting (such as GT's Box license) link to a ZIP (or 7zip) file of your Unity project via Canvas. **Please clean the project directory to remove unused assets, intermediate build files, etc., to minimize the file size and make it easier for the TA to understand. Refer to <u>Assignment Packaging and Submission</u> on the Canvas Syllabus for further details.**

The submissions should follow these guidelines:

a) Your name should appear on the HUD of your game when it is running.
b) ZIP file name: *<lastName_firstInitial>_m<assignment_number>.zip*
c) Complete project (with builds) per *Assignment Packaging and Submission* instructions
    i. Readme file should be in the top-level directory: *< lastName>_<firstInitial >_m<assignment_number>_readme.txt* and should contain the following:
    ii. See *Assignment Packaging and Submission* for base readme requirements
    iii. Detail the new required features (script and 3d graphics) implemented and provide exact steps grader should take to demonstrate.

Submission total: (**<u>up to 20 points deducted</u>** by grader if submission doesn't meet submission format requirements)

Be sure to save a copy of the Unity project in the state that you submitted, in case we have any problems with grading (such as forgetting to submit a file we need). Do not alter or remove your submission from cloud hosting until your grade has been returned.