Getting Started with Unity

Rutgers - Computer Graphics Course - Assignment B0

1. This is an INDIVIDUAL assignment.

2. Download and install the latest version of Unity3D (Unity 5): Unity Install. Choose the personal/free version. You can download the installer for Windows or Mac. On Linux, you can use Wine to run unity, but this is not recommended.

   Check "Getting Started with Unity" for the initial setup.

3. Follow this very good introductory tutorial: Roll A Ball and go through all the lessons.

4. [2 points] Make your own Rolling Ball game, using the steps in the Roll A Ball tutorial (get creative and make it exciting! Play with textures, colors, etc.).

5. [8 points] Add these functionalities to your code:

   a. Make the ball jump! The more realistic the jump, the more mark you get! Watch out for many potential problems with a jump, as an example: if I rapidly press the jump button, will your code be able to react in time?
   b. Use UI components to provide buttons for starting and resetting the game.
   c. Make it a fun two-player shared-screen game! (both can be on one keyboard, or using a separate joystick/mouse), containing the following features:
      i. Limited time: 2 mins (count this on the screen).
      ii. Collisions with walls reduce points.
      iii. Cubes will add points.
      iv. Collisions between two balls (players), will reduce a point from the one with a lower altitude!
      v. Display each player's score on the screen.
   d. [1]Make announcements on the screen with regard to the state of the game (A wins the collision, B wins the game, Time almost up, etc.)
   e. [2]Add multi-player functionality. Experiment with supporting multiple control interfaces (mouse and keyboard). Explore the benefits/tradeoffs of both players using the same keyboard vs. keyboard and mouse. Explain your choice as part of your submission.
      i. Explore Unity Networking for online multi-player games.

[1] Extra credit
[2] Extra credit

6. Submit the following in Sakai for grading:

    a. Your Unity project in a **zip** file which contains the Assets folder and includes all your C# scripts. All scripts MUST be written in C#!
    b. A web deployed build in a zip file. You need to install the **WebGL** build support. It must be playable offline, remember to include .unity3d and .html files.
    c. A document (text or pdf) containing:
        i. Brief documentation about your game (how is it played, what are the special features, what else have you added, what are the keys, etc.)
        ii. A description of the extra credit attempts.

7. “Read more, Learn more” at the unity website where you can find rich and well-designed documentations as well as tutorials: Unity Learn

NOTE: Extra credit will be given at the discretion of the instructor.

--

Good Luck Everyone!