

Computer Science 316

iOS App Development

Lab Assignment #7

Due: Sunday, March 16, 2025 (Before midnight)

1. Set up a web server to provide you a platform (e.g. LAMP) for developing your own web application. A quick and easy way is to re-use your Ubuntu virtual machine you already set up for COSC 213, or download a new copy of Ubuntu virtual machine for your own Mac from your instructor's google drive (download link is available from our Moodle course page). Please note that Oracle VirtualBox has already been installed in Lab E301, but you still need to download Ubuntu virtual machine to work with VirtualBox.

Web hosting account can be an alternative to using virtual machine.

2. Refer to the activity example “MyTabBarControllerApp”, it provides two basic tabs working with two View Controllers. Now we can modify it by using the first tab (labelled it as Game) and the first view controller for running a game (e.g. NinjaAttackGame) , and the second tab (labelled it as Website) and the second view controller for running your web site from your web server.

Hint: GameViewController created by SpriteKit Game is actually a ViewController with a SpriteKit View (instead of a UIView). That means we can use the FirstViewController.swift file just like using GameViewController.swift. The only thing that needs to be changed is to replace the **UIView** object in the storyboard with a **SpriteKit View** object. After that add a New File (Swift file) into the project folder and name it as **GameScene**.

The only problem is the orientation of the device. It seems like we cannot have one view in portrait and the other view in landscape mode within a TabBarController. So both tabbed views in either portrait or landscape mode is just fine.



Take one screen shot of your simulator for running each tab similar to the screen shots as shown above.

3. Download the **starter.zip** file and use it to complete the tutorial from the link below, learning how to use Scene Editor to add sprites, use reference nodes to reuse sprites for building different scenes, add sound effects associated with different sprites, lighting effect, etc to a Sprite Kit game.

<https://www.raywenderlich.com/620-introduction-to-the-spritekit-scene-editor>

When you complete the tutorial, run the game. Take a screen shot of the simulator while the game is running.

Submitting your work:

Place all screen shots and completed project folders into another folder named **Lab7**. Zip your **Lab7** folder, and submit it via Lab 7 link on our Moodle course page by *Sunday, March 16, 2025 (before midnight)*.

Please note that this is our LAST lab assignment! Think BIG and start working on your individual course project from now on! All your project presentations are scheduled on Thursday, April 10, 2025 starting at 2:00 pm via Zoom – Virtual Presentation Hall on Moodle.