CSE 4500 – Platform Computing
Professor Lawrence Orijuela
Homework 4 (Due TBD) – YuGiOh Life Point Counter

Instructions:
1. **Download this assignment as an editable word doc from Canvas.**
2. **Write your name and student ID.**
3. **For written questions (if any), write your answers in the spaces provided. Give yourself more space as needed.**
4. **Export this doc with your name and answers as a PDF and resubmit it to canvas.**
    a. **Use this as your title: CSE4500_YourName_HW#**
    b. **Example: CSE4500_BobSmith_HW#3**

Name: Ali Becerra__Student ID #:_007937560__Points:_____/100__

This homework assignment requires you to make TWO applications, you will complete them both to get full credit.

The first application is a Magic Life Counter. Magic: The Gathering is a collectible trading card game where the game begins with both players having 20 life. Your goal is to get your opponent's life total to 0 before they bring your life total to 0. Many seasoned players of the game use a mobile app rather than a spin-down die or pen-and-paper to keep track of life.

The second application is a YuGiOh Life Point Counter. YuGiOh! is yet another collectible trading card game where the game begins with both players having 8000 life points. Your goal is to get your opponent's life total to 0 before they bring your life total to 0. Likewise, many seasoned players of the game use a mobile app rather than a spin-down die or pen-and-paper to keep track of life points.

Magic: The Gathering – Life Counter

1. Open Xcode. Create New Project. Select *App* as your template.
2. Name your Project 'MagicLifeCounter'.
   a. For *Interface*, make sure 'Storyboard' is selected. Otherwise, it will be a SwiftUI Project.
3. Download the images from Canvas. Drag and drop them to the assets folder. (The naming scheme will tell xcode to organize it the way we want.)
   a. Display
   b. BluePlus
   c. BlueMinus
   d. RedPlus
   e. RedMinus
4. Drag the image *AppIcon* to the area called *AppIcon*, in the Assets folder.
5. Using the '+' button, add an ImageView.
   a. Change image to "display"; this is one of our image assets.
   b. Use the 'Add New Constraints' button. Add the appropriate constraints so that it fills the whole screen.
      i. Ensure constraints are relative to View, not Safe Area.
6. We will use a vertical stack to house our buttons and labels. Click the '+' button and add a Vertical Stack.
   a. Add constraints so that it fills the screen. Note: We do not want the iPhone notch to be in the way of our buttons, so make the constraints relative to the Safe Area, instead of the View.
7. Now that our app layout is complete, we can begin coding. Click the hamburger icon and click *Assistant* to show the Assistant Layout.
8. Now we need to write code in such a way that it increases/decreases your or your opponent's life total when the buttons are tapped. Watch the accompanying lecture video for an explanation of the code!
9. Run the application! On either the emulator or your real iPhone!
   a. You'll find that we have a problem: When we rotate the device, it will skew our elements when it moves to Landscape Mode.
   b. We can lock our app into Portrait Mode by clicking the solution and unchecking "Landscape Left" and "Landscape Right".

<u>YuGiOh! – Life Point Counter</u>

Now we will create the YuGiOh! Life Point Counter. The instructions are nearly identical, so watch as I do it on the Accompanying Lecture Video.

Add Both Apps to your About Me Page:

1. Add a screenshot of both apps added to your About Me Page here:
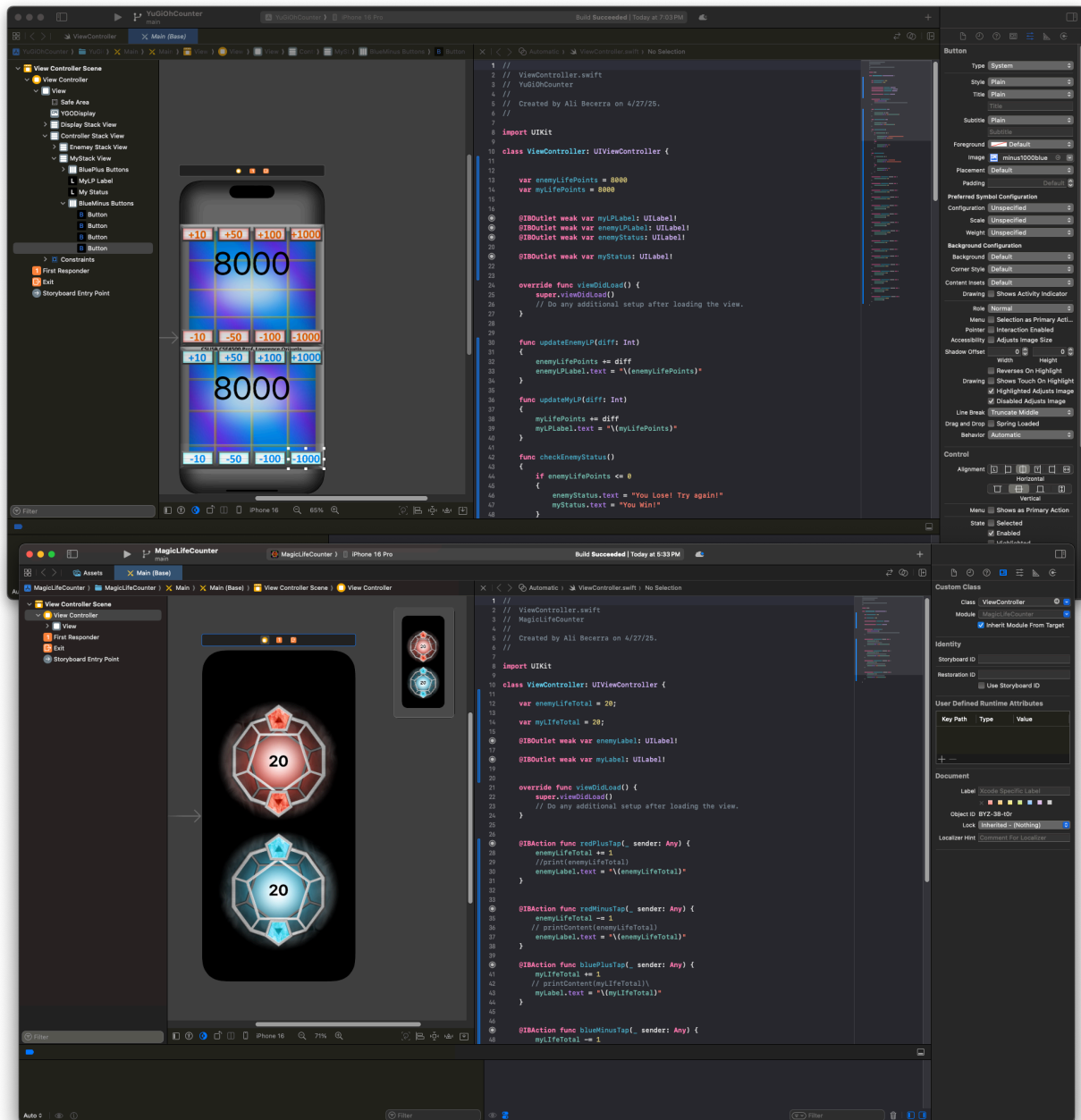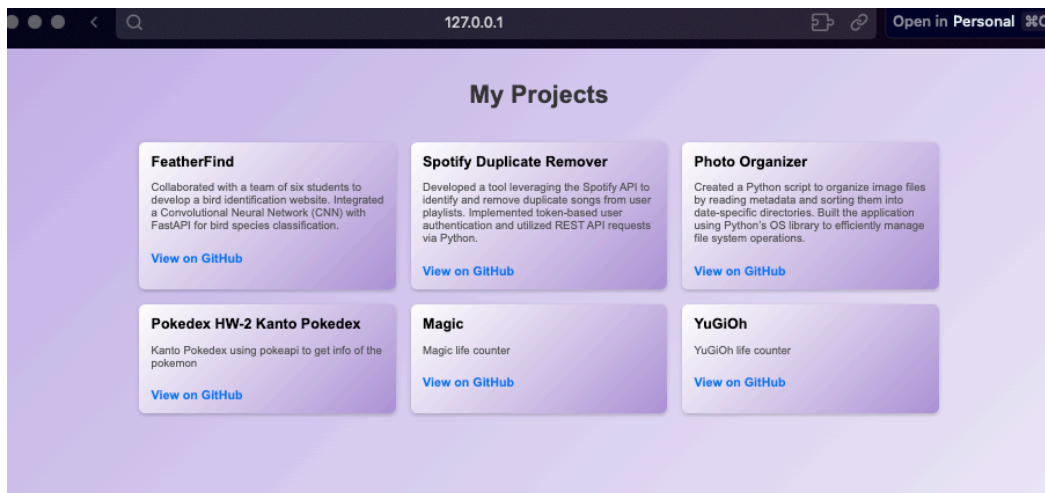
<u>Deliverables:</u>

Submit all of the following to the submission page on Canvas:

1. This document with your name and the screenshot of your About Me Page. (20 points)
2. A zip file of your Magic Life Counter. (40 points)
3. A zip file of your YuGiOh Life Point Counter. (40points)