CS 371L: Bulko
Programming Assignment 7:
Simple Animation

Due Date: March 26, 11:59 pm

1 Problem Definition

Your goal in this assignment is to play with a simple animation. There are only one view controller in this project as shown in Fig 1(a). In the View Controller, there is one image "UT Tower” that occupies the full screen. When you click on the image "UT Tower”, it will change to the image "UT” with animation, as shown in Fig 1(b). Then if you click on the "UT”, it will change back to "UT Tower” with animation, and so on and so forth.

The image "UT” and "UT Tower” are attached along the instruction, as well as a demo shows how the application should looks like.

![UT Tower](image1) ![UT](image2)

Figure 1: Application demos

2 Detailed Instructions

- Create a Single View application project named <lastName><firstName>-HW7.
- Storyboard:
  - Set the background color of the main view of the ViewController to some color (choose one you like except white).
– Add a button to the storyboard with appropriate layout constraints so that it is centered and occupies the full screen.

• ViewController: When the button is clicked, if the current image is image A, change it to image B with the following animations:
  – Step 1: Animation 1 with
    * duration: 1.0
    * delay: 0.0
    * options: curveEaseOut
    * animation handler: set the alpha of the button to 0.0
    * completion handler: Step 2 and 3.
  – Step 2: Set the image of the button to image B.
  – Step 3: Animation 2 with
    * duration: 1.0
    * delay: 0.0
    * options: curveEaseIn
    * animation handler: set the alpha of the button to 1.0
    * completion handler: nil

• Note that Step 2 and 3 should be embedded in the completion handler of Animation 1, so that the 3 steps are executed step-by-step.

3 Grading criteria

1. The background of ViewController is set to some color. (20%)
2. Appropriate constraints are added to the button. (20%)
3. When the button is clicked, the image of the button can be changed from one image to another. (20%)
4. The animations are correctly defined and behave as expected. (40%)
5. Note that if the app does not build and run, ZERO points will be given.
6. The Coding Standard is followed. One point deducted for each violation.

4 General criteria

1. I will be looking for good documentation, descriptive variable names, clean logical structure, and adherence to all coding conventions expected of an experienced programmer, as well as those outlined in the Coding Standard document. There will be penalties for failure to meet these standards.
2. Your code must compile and run before submission.
3. Xcode will automatically generate standard headers to your .swift files. Add two lines to each Swift file that list your EID and the course number, so that the header looks like the following:

```swift
//
```