CS4520: Mobile Application Development
Fall 2024
Weekly Assignment 3 (100 points)

Basic Instructions:

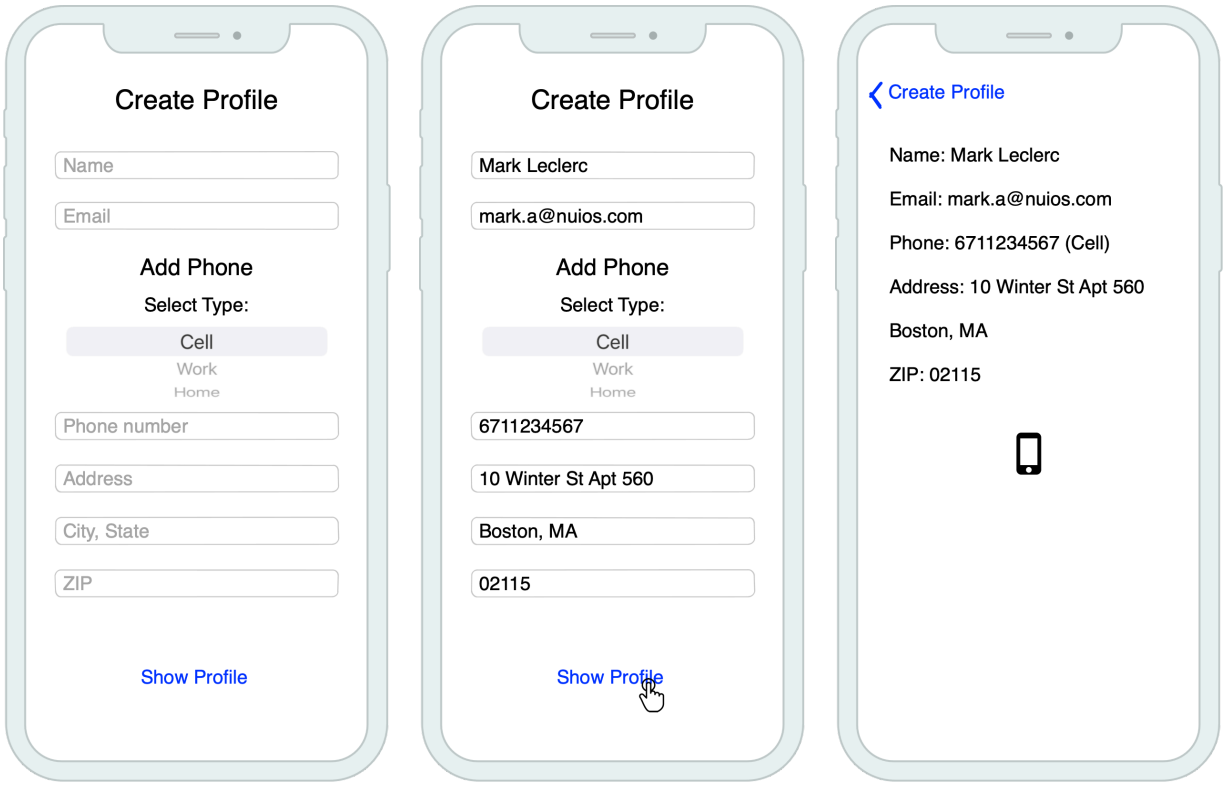
1. **Submission details:**
    a. The project name should be:
    WA3_<Your_Last_Name>_<Last_4_digits_of_your_NUID>
    b. After you are done building the project, right-click on the project from Project Navigator.
    c. Click on Show in Finder.
    d. Select the project directory and the .xcodeproj file, and compress them to create a zip file.
    e. Then, submit the zip file in Canvas.
    f. (Please read the "How to Submit the Assignments" from Modules -> Quick Links.)

****Find the detailed instructions on the next page****

Weekly Assignment 3

Create Profile

In the assignment, we will build a two-screen application and learn to use UIPickerView, UINavigationController, and UIImageView. The application's users should be able to enter their contact details on one screen and see the details on the next screen.



a. Create Profile screen

b. The user inputs the details and clicks on Show Profile

c. Show Profile screen

Figure 1: Create Profile app Wireframes

Requirements

1. Do not use Storyboards for this assignment.
2. You must separate Views from the Controller code.
3. The app will have two screens: the 'Create Profile' screen and the 'Show Profile' screen.

4. **The 'Create Profile' screen** must have the following UI elements on the screen:
    a. The title should be "Create Profile."
    b. There should be a TextField so the user can put a name.
    c. Next, there should be a TextField for the user to put an email address.
    d. Then, there should be two Labels, "Add Phone" and "Select Type." If you notice, font sizes are different (Figure 1). Play with fonts to accomplish that.

    For your information, iOS's default font size is 14. You can write something like the following to change the font size:

    ```
    label.font = label.font.withSize(20)
    ```

    e. Then, there should be a PickerView for the user to select the type of phone number. There will be three types to choose from: "Cell," "Work," and "Home."
    f. Then, there will be four more TextFields to accept a 'phone number,' 'address,' 'city and state,' and 'zip code.'
        i. For the email, **you should set the keypad type of the TextField to 'emailAddress.' Try it yourself.** You should validate if the user has a valid email. You can use the method here: https://stackoverflow.com/a/25471164/2959067 to validate if the user has put in a valid email or not.
        ii. For the phone number, **you should set the keypad type of the TextField to 'phonePad.'**
        iii. The Zip code should just accept numbers. The keypad type of the TextFiles should be 'numberPad.' You should validate if the user put a valid zipcode (exactly five digits long, the current Zip codes in the United States range from 00001 – 99950).
        iv. You should implement appropriate alerts to the user to correct their errors.
    g. Finally, there should be a Button that displays "Show Profile."

5. **The 'Show Profile' screen** must have the following UI elements on the screen:
    a. There should be **six** Labels to display the 'name,' 'email,' 'phone' (with the type of number), 'address,' 'city, state,' and 'zip' of the profile.
    b. Finally, there should be an ImageView to display an image corresponding to the phone number type the user selected (cell, work, or home). The images are provided to you in the support files.
6. **Constraints:**
    a. **Create Profile screen:**
        i. If you have noticed carefully, the widths of all the TextFields are the same. In our examples, we only talked about center alignments (centerXAnchor). To be able to design something like in Figure 1, we need to work with 'leading' and 'trailing' anchors. For example:

```
//leading anchor with 16 points margin
textField.leadingAnchor.constraint(equalTo:
view.safeAreaLayoutGuide.leadingAnchor, constant:
16),

//trailing anchor with 16 points margin
textField.trailingAnchor.constraint(equalTo:
view.safeAreaLayoutGuide.trailingAnchor,
constant: -16),
```

    b. **Show Profile screen:**
        i. You should also have noticed that the labels are left-aligned in the Show Profile screen. So, you should work with the leading constraints of the Labels, too.
        ii. The ImageView should be center-aligned horizontally.

NOTE: It is best to separate the view code from the control code in this assignment.