

# CS5520: Mobile Application Development

## Weekly Assignment 5 (100 points)

### Basic Instructions:

#### 1. Submission details:

- a. The project name should be:  
**WA5\_<Your\_Last\_Name>\_<Last\_4\_digits\_of\_your\_NUID>**
- b. After 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)

## Weekly Assignment 5

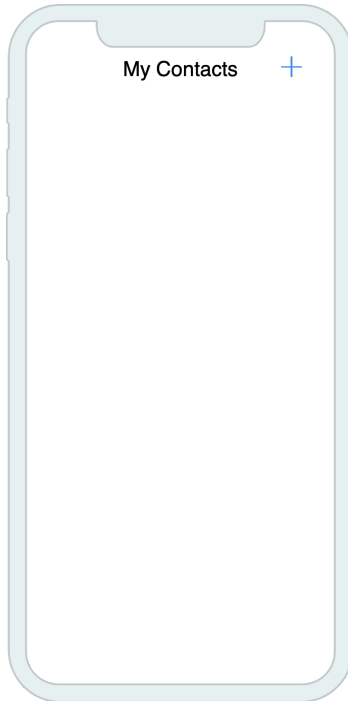
**Please complete reading the tutorials first before you start building the application. Go to Canvas, scroll to Week 6, and read the tutorials mentioned.**

This is an extension of Weekly Assignment 4. Where you will make the following changes:

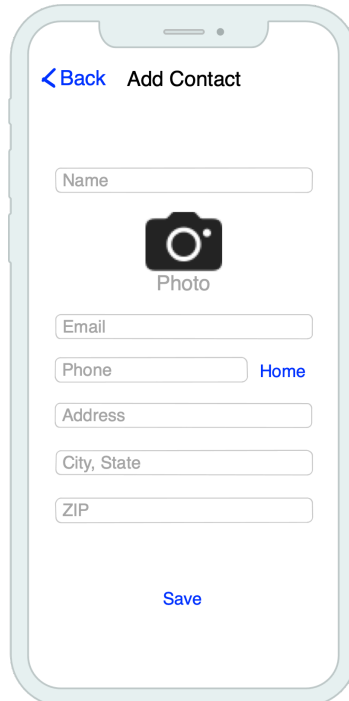
1. Replace UIPickerView with Menu.
2. Add an option to add the profile photo.
  - a. You should have two options for picking a photo: (i) select from Gallery using UIImagePickerController, and (ii) take a photo from Camera using UIImagePickerController.
  - b. If you're using an simulator, don't worry about the camera; just write the code. If your emulator camera pops up, that's it.
3. Instead of putting a Label to display the screen's name, set the screen's title. For example, in `viewDidLoad()`, write `'title = "Screen Titile"`.

## Requirements:

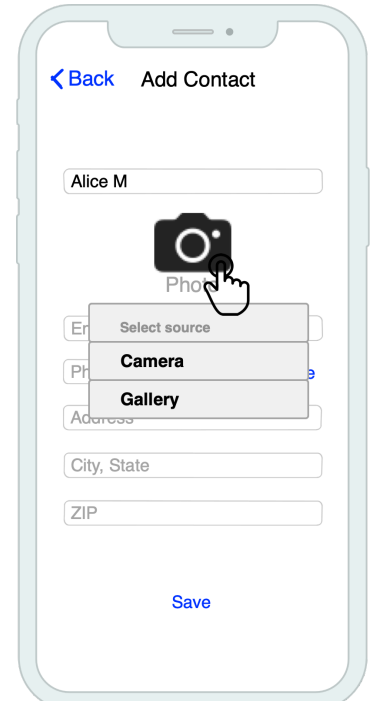
1. **Main Screen:** the main screen will look precisely like WA 4 except for the design of TableViewCell.
  - a. The profile photo should be displayed in a square-shaped UIImageView in each contact cell.
  - b. The cell should look like Figure 1 (f and g).



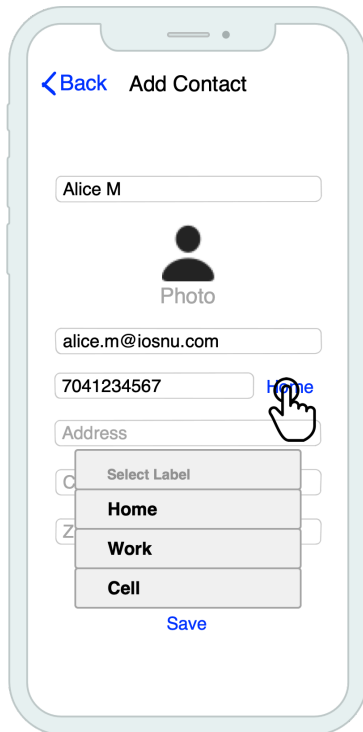
a. Main Screen



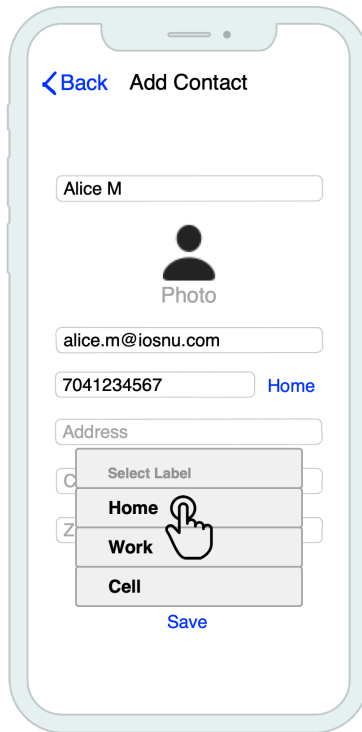
b. Add New Contact



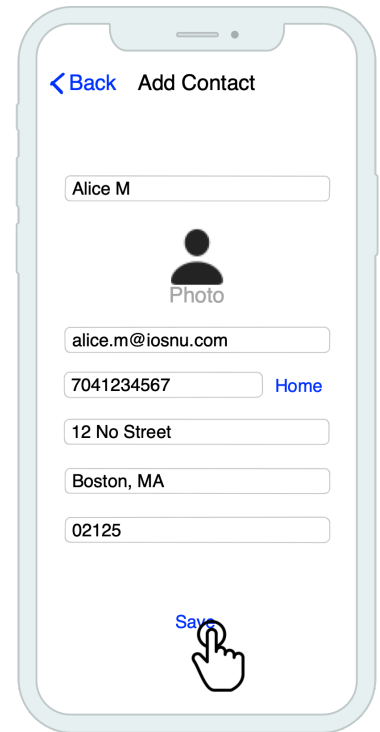
c. Menu for selecting the source of the image



d. Selecting a phone type



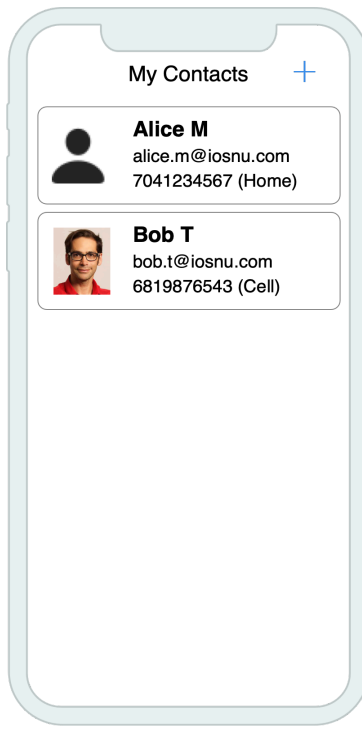
e. Selected Home



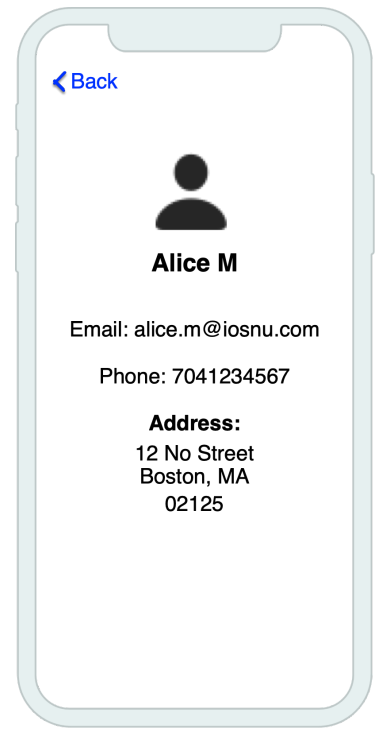
f. Saving the contact



g. Added a new contact



h. Added one more contact



i. Details Screen

Figure 1: App Wireframes

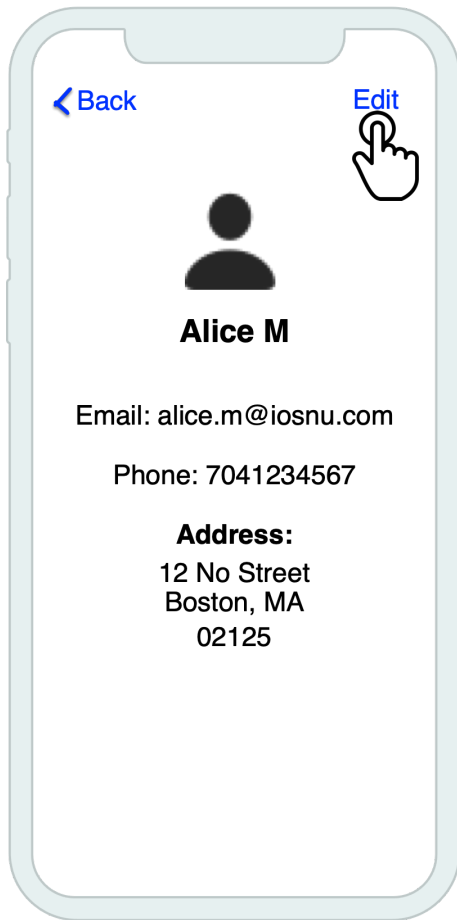
## 2. Add Contact Screen:

- a. The design should resemble Figure 1 (b, c, d, e, and f).
- b. You need to make a few changes:
  - i. Add a Button below the name TextField. This button should be used to pick and display the image the user chooses or takes for this contact. Set an appropriate image to the button. Use the 'SF Symbols' app to select your own.
  - ii. Tapping on the button should display a pop-up menu giving you two options:
    1. Camera: Take a photo using the camera and UIImagePickerController.
    2. Gallery: select a photo from Gallery using UIImagePickerController.
  - iii. Then we have all the TextFields similar to WA4; however:
    1. Right after the phone number, TextField, on the same line, you should place a button to display the type of the phone number.
    2. Place the button to the right of the screen, then expand the phone number TextField. **Hint: use the 'lessThanOrEqualTo:' constraints comparator.**
    3. By default, set the Phone number type to "Home." For the menu options, you should have "Home," "Work," and "Cell."
    4. If the user taps on the button, it should display the menu for selecting the type of phone. After the user selects an option, it should change the type to the selected option.
  - iv. Finally, tapping the Save button should take the user to the main screen and display the added contact with the profile picture.
    1. **Remember, taking a photo should be optional. If a user forgets to take a photo, you should display a default system image, like an avatar, on that contact row.** Choose an appropriate image from the SF Symbols app.

- c. **Details Screen:** The details screen should be the same as WA4, except you must display the profile picture at the top, like Figure 1 (i).

**(Bonus) Edit Contact Screen:**

1. On the Details Screen, you should add an 'Edit' right Bar Button.
2. Clicking on the Edit button should open an Edit Screen. (You can reuse the same layout of Add New Contact or build a new screen).
3. Once editing is done, return to the Display screen and then the main screen using the navigation controller.
4. **Hints:**
  - a. You can forward the delegate: Main Screen -> Details Screen -> Edit when you are pushing the screens on the UINavigationController.
  - b. When switching from the Details Screen to the Edit Screen, you should set the variables and delegates, then pop the current (Details) screen, and finally push the Edit screen.
  - c. (You can use the 'indexPath.row' to manipulate data of the position of the selected row.)



a. Edit right Bar button tapped

The 'Edit' screen for the contact 'Alice M'. At the top left is a blue '< Back' button. At the top right is the title 'Edit'. Below the title is a text input field containing 'Alice M'. Underneath is a black silhouette of a person with the label 'Photo' below it. Below the photo is a text input field containing 'alice.m@iosnu.com'. Below that is a text input field containing '7041234567' with a blue 'Home' link to its right. Below the phone number is a text input field containing '12 No Street'. Below that is a text input field containing 'Boston, MA'. Below the address is a text input field containing '02125'. At the bottom center is a blue 'Save' button.

b. Edit Screen

**Figure 2: Edit Contact Screen**