

## Assignment 2 (iOS)

### CU Blossom



*Trumpet Tree at Science Centre  
captured by CPRO CUHK*

Due : Nov 3, 2017 11:55pm

In different seasons, blossom among the CUHK campus has decorated the hill and the suburbs area with colourful charms and created many must-visit spots: in spring with the pink cherry blossoms in NA, in summer with the blue Jacaranda, and in autumn with the purple Orchid tree. This assignment needs you to write an **iOS** App which can display a list of images of those blossom with **Swift 3** and **Xcode 8.0 (on iOS 10 simulator)**.

In this assignment, you need to set up a list of **4 blossom items** when the program starts up. Each blossom item should consists of a thumbnail **photo**, the blossom **name**, the blossom **location** and a “**liked**” indicator (as an empty or a filled star). As a practice of various programming skills in this assignment, you need to use the table view controller to display a number of blossom images as a table view (master view) on screen. In the table view, a user should be able to add new entry to the list, as well as delete any entry [*by exploiting a pre-defined “**Edit**” button in table view controller*].

The user should be able to to sorting the table entries by the names or by the locations [*functional programming of an array in Swift should help here*] through clicking on two extra navigation bar buttons. You also need to provide a switch for the user to show only the “liked” blossom or all blossom.

The user can also add his or her own newly captured image(s) from the photo library to the collection by using the Add (“+”) function. The **Add** button is shown on the top right of the screen in table view. Once the user tap on the button, a new scene with all descriptions of the entry in unfilled state will be shown using a navigation controller. The user can then enter the description and image to the entry. Clicking the “**Save**” button will save a new entry to the list; or click the “**Cancel**” button to return.

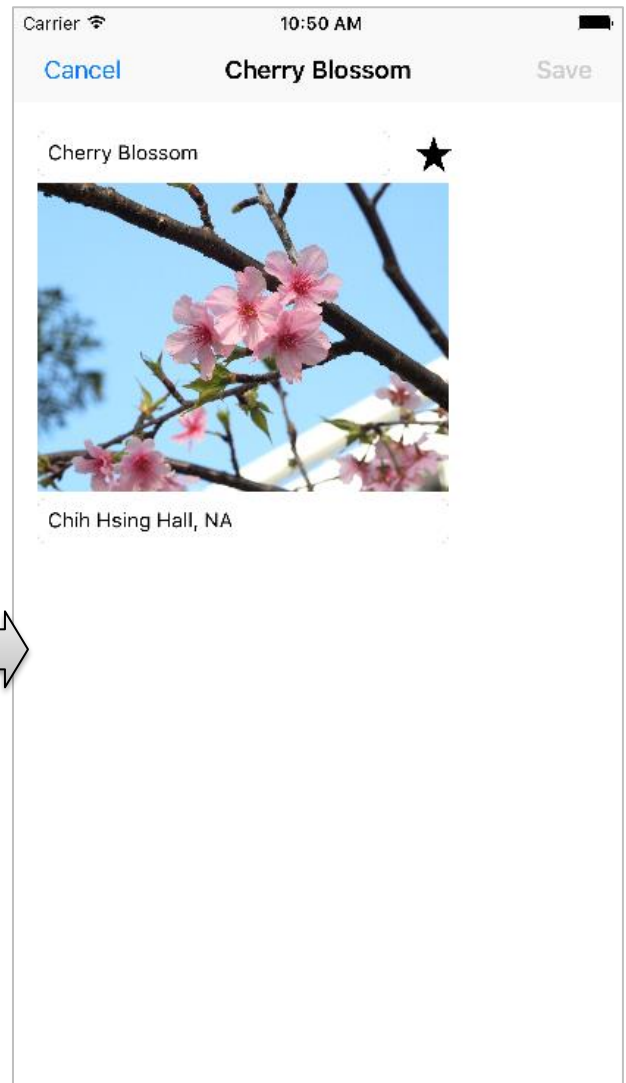
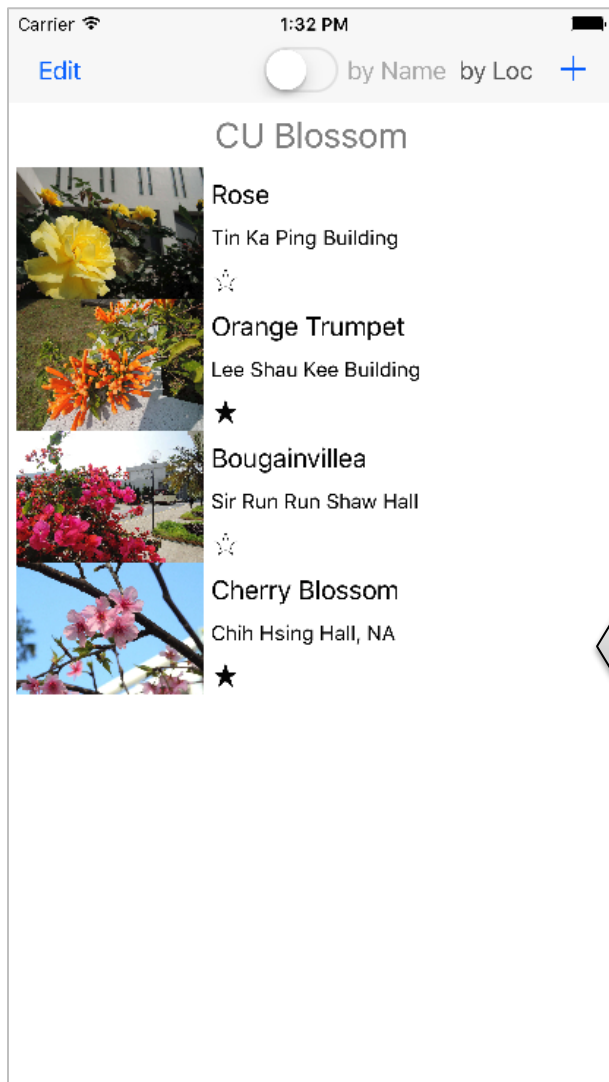
When the user taps on any cell entry, a detail scene will be shown. The user should be able to edit the list entry. Similarly, the user can then modify the description or the image to the entry. Click “**Save**” to update the entry back to the list; or click “**Cancel**” to return. The program should also have data persistence feature in that after the first run (at least four entries in table), the data will be saved in app’s local document directory. During the next run, the last table which the user had made modifications will be there.

# Requirements

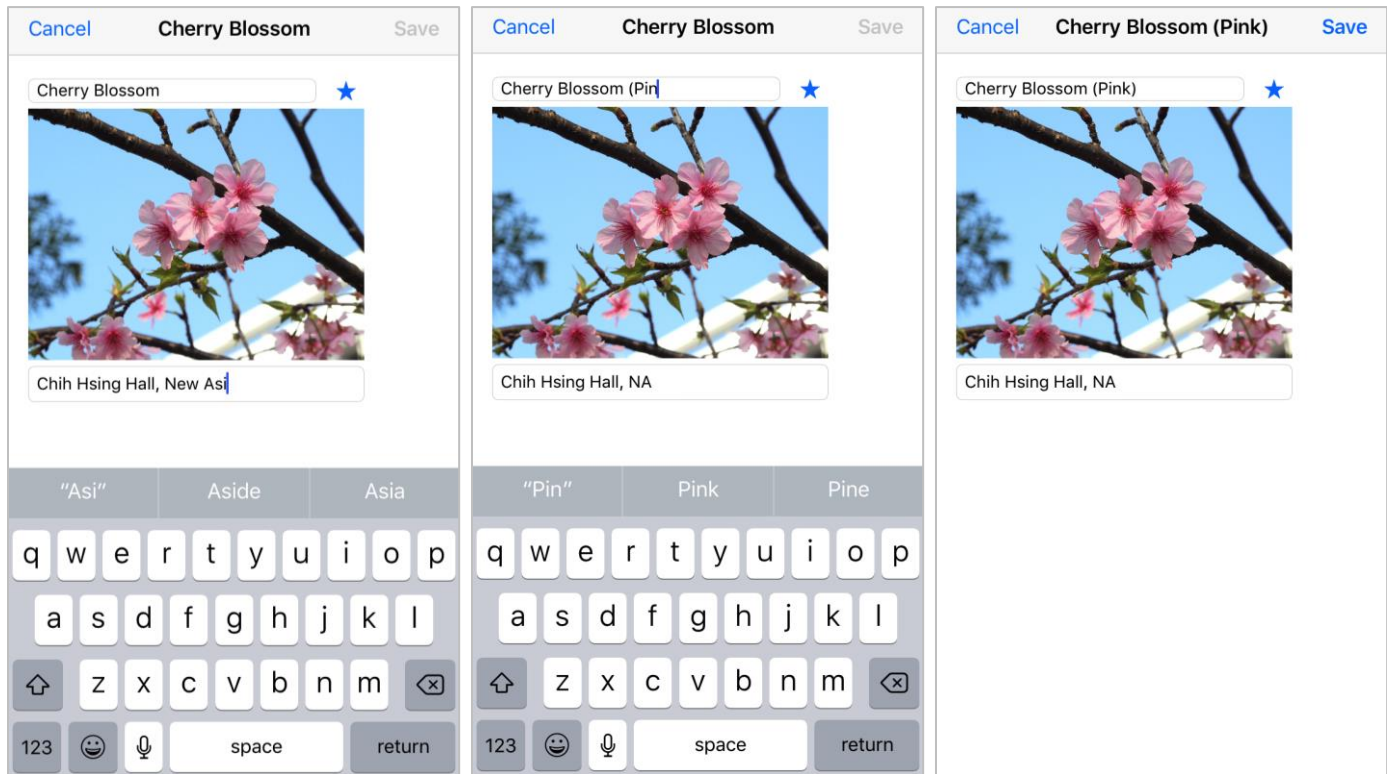
Basically, this assignment is just following the official “Getting Started” iOS Swfit apps development webpage as well as details given in the tutorials with some variation and extensions:

<https://developer.apple.com/library/content/referencelibrary/GettingStarted/DevelopiOSAppsSwift/index.htm>

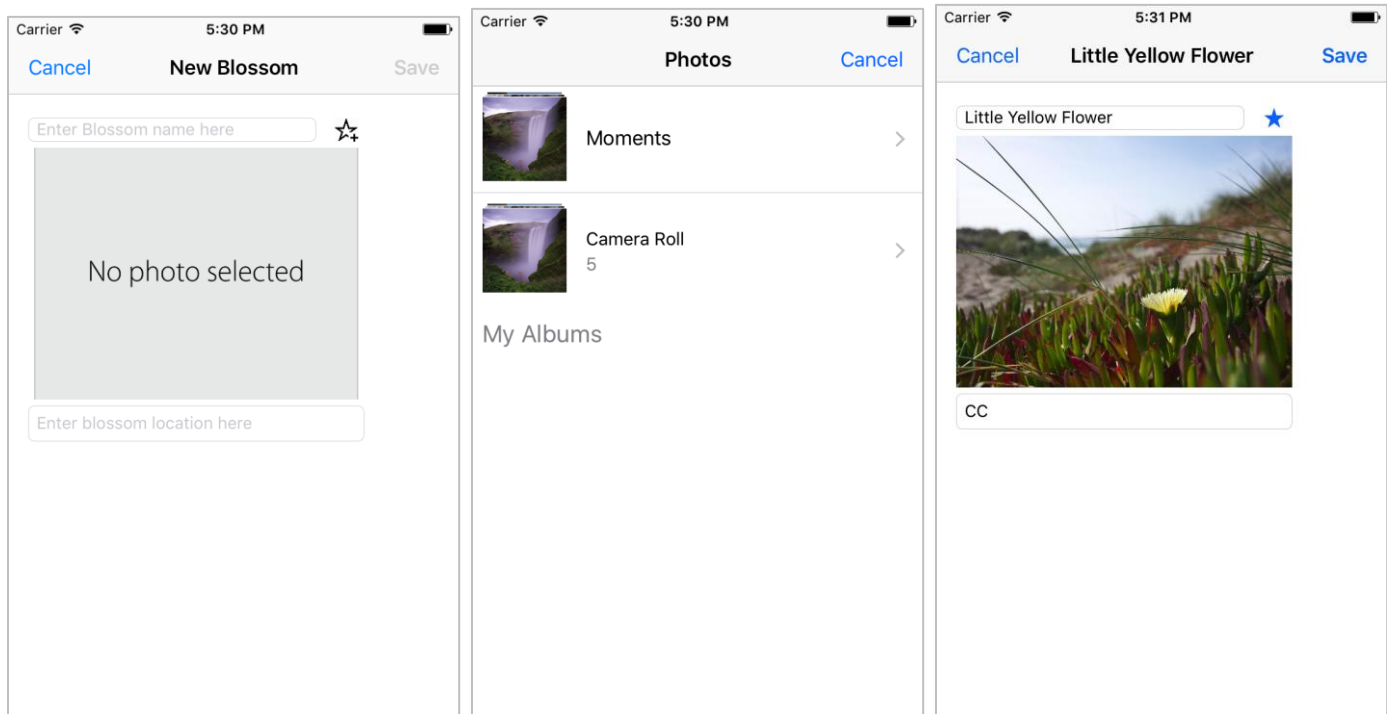
1. At program first start, your program should display four sample images included in the assignment package [**NOTE:** all photos are provided under the permission of Communications and Public Relations Office (CPRO), CUHK, please use them only within this assignment].
2. Your program should be able to segue to a details scene for any item clicked (tap on existing item in table view).



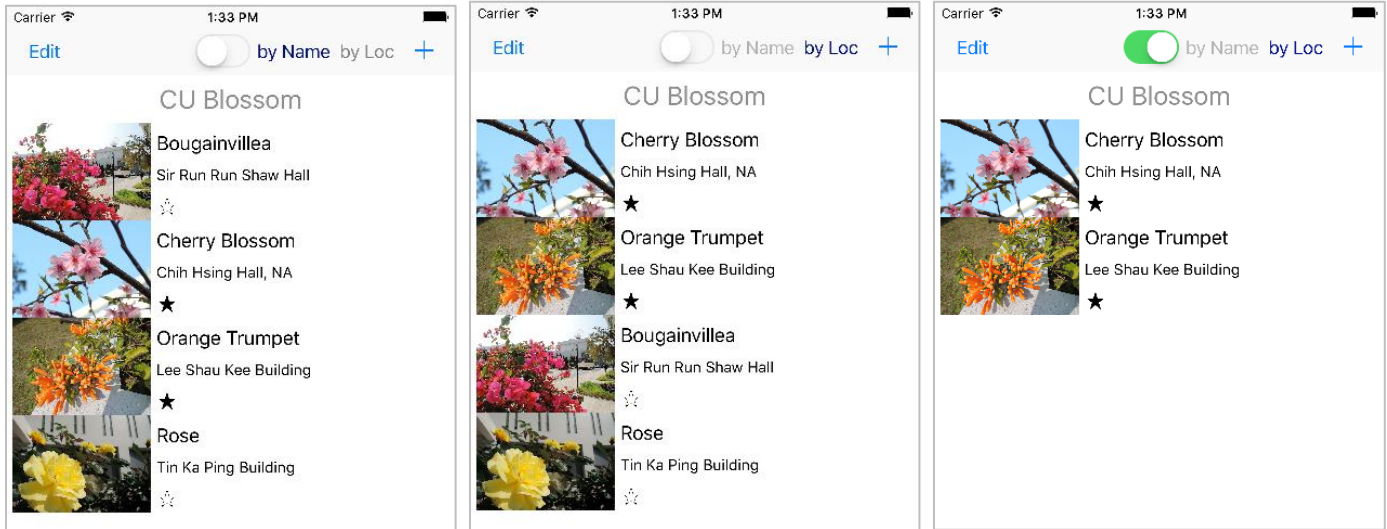
3. Besides showing details, your program should be able to let user edit the **name**, **location**, **photo** and **“liked”** (from ☆ to ★, or vice versa) fields. **“Save”** button should be disabled until the user is done typing (updating) in the blossom’s **name**.



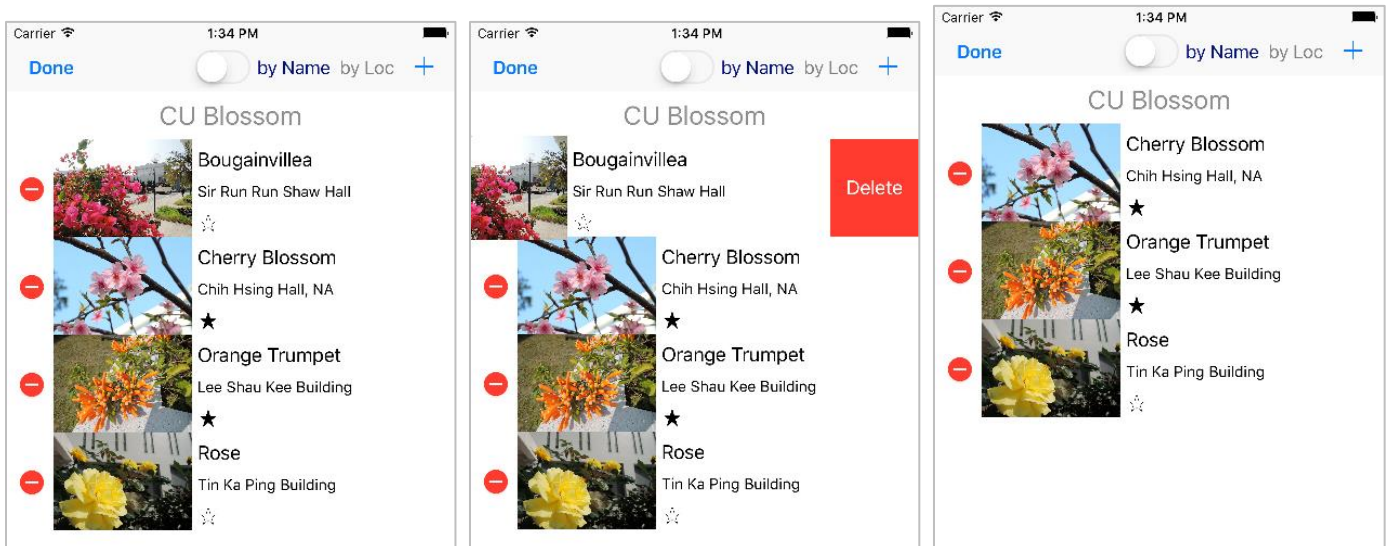
4. Your program should be able to let user add new item (tap on ‘+’ button in table list view), photo can be added from the device’s photo library, assign name/location and mark “liked”. Similarly, **“Save”** button should be disabled until the user is done typing in the blossom’s **name**.



5. User should be able to sort the table items by names or by locations; and hide non “liked” items (☆).



6. To delete any entry in the table, by “Edit”, and end the editing by “Done”



7. Your program should be able to save the edited table into app’s local document directory. If you add a few new blossoms to the app and quit, the entries added will be there the next time you open the app.

## Submission

You should packed all your app folder and related files into an archive named “3310\_asg2.zip”, and submitted it into our assignment collection slot in Blackboard system before the deadline, Nov 3, 2017 11:55pm.

Late submissions will risk a mark deduction from 5% to 30% if they are being done within 24 hours after the deadline. Submission later than Nov 6 11:55pm won’t be considered.