

Washington State University  
School of Electrical Engineering and Computer Science  
Spring 2018

CptS 479 Mobile Application Development

**Homework 2**

Due: January 23, 2018 (11:59pm)

**General Instructions:** Put the entire app directory into one zip file and submit as an attachment under Content → Homework 2 for this course on the Blackboard Learn system by the above deadline. Note that you may submit multiple times, but only the most recent entry submitted before the above deadline will be graded. Make sure all files are actually copied into the app directory and not merely referenced elsewhere on your computer.

For this homework you will create a new version of the travel app called Traveler2, which will store and display information on multiple trips. Specifically,

1. Create a new Swift file called Trip.swift. In the file define a class called Trip with four properties: destinationName of type String, startDate and endDate both of type Date, and imageFileName of type Optional String. You will also need an init() function to initialize the three non-optionals.
2. In the Storyboard, setup the view as shown in the screenshots below. The “Traveler” label is centered at the top. The “Destination:”, “Start Date:” and “End Date:” labels are left-justified and appropriately spaced near the top. The UIImageView is bounded by the “End Date” label above, the margins at left and right, and has a fixed height. The UIImageView should be set to Aspect Fit. Finally, the “Next” button should be centered at the bottom. The view should be appropriately laid out despite device orientation.
3. Create Outlet connections for the “Destination”, “Start Date” and “End Date” labels in the ViewController.swift file. Also create an Action connection for the “Next” button.
4. In the ViewController class, create two properties: “trips” which is an initially empty array of Trip objects, and “tripIndex” which is an integer initially zero.
5. Also in the ViewController class, create a function called “initializeTrips()” that creates at least three trips, where each trip has a destinationName, a startDate and an endDate (see code snippet below for date handling). All but one of the trips should have an imageFileName. Don’t forget to copy the image files into your project. The “initializeTrips()” method should be called from within “viewDidLoad”.
6. Also in the ViewController class, create a method called “displayTrip()” that displays the information about the trip stored in the “trips” array at index “tripIndex”, i.e., modify the text of the label outlets appropriately. You can change the image by using “UIImageView.image = UIImage(named: imageFileName)”. If there is no imageFileName, then the UIImageView should be hidden.

7. Finally, the Action method connected to the “Next” button should increment the tripIndex, wrapping to zero if it exceeds the size of the trips array, and displays the next trip information.

### Code Snippet: Date Handling

```
1 //: Playground - noun: a place where people can play
2
3 import UIKit
4
5 var str = "Hello, playground"
6
7 let dateFormatter = DateFormatter()
8 dateFormatter.dateFormat = "MM/dd/yyyy"
9 let today = Date()
10 let todayStr = dateFormatter.string(from: today)
11 let thisFriday = dateFormatter.date(from: "01/19/2017")
12
```

"Hello, playground"

<NSDateFormatter: 0x60400005b030>

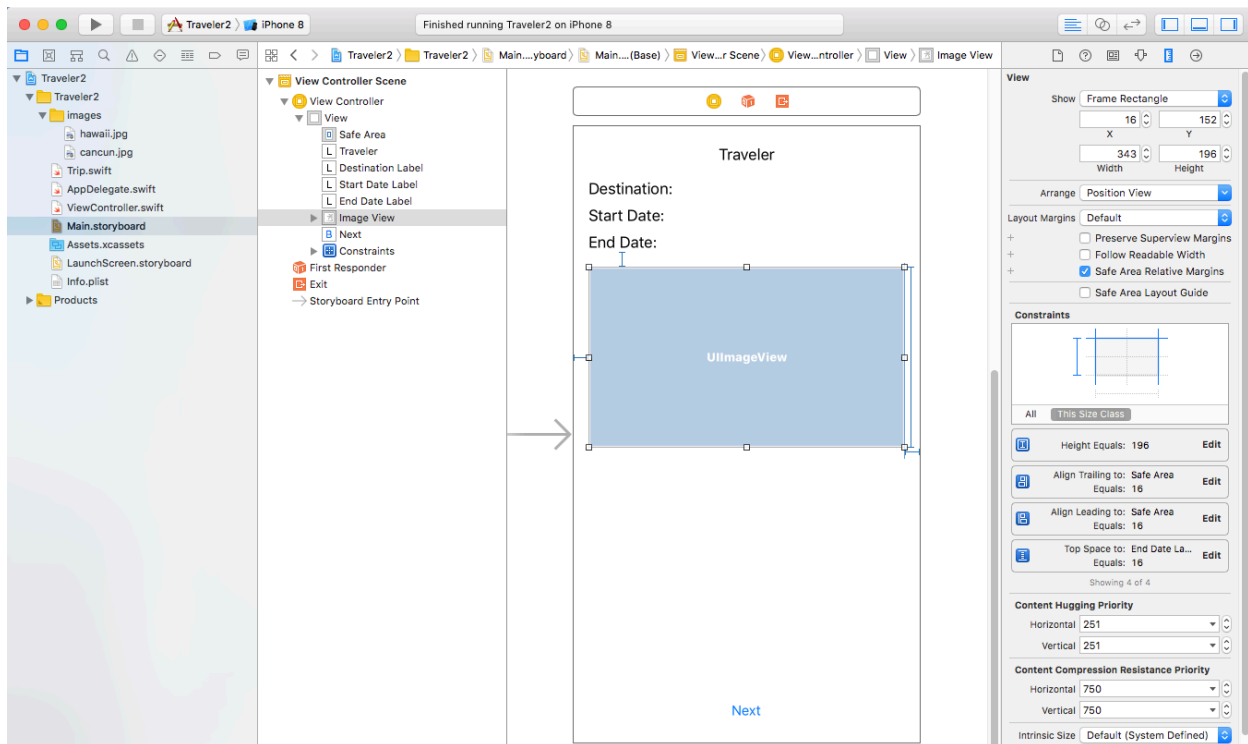
<NSDateFormatter: 0x60400005b030>

"Jan 17, 2018 at 12:46 PM"

"01/17/2018"

"Jan 19, 2017 at 12:00 AM"

### Screenshot: Storyboard



# Screenshots: Device

