

# Learning objectives

- Navigation controllers
- Tab bar controllers
- Containing one type of view controller inside of another.

## Introduction

You'll be building a weather app that will hold 5 tabs, each one for a different city.

The view controller for each tab will be a navigation controller holding a description of the weather (sunny, cloudy, fog, etc.) and an icon of that weather description. The user also has the ability to navigate back and forth to a view controller to get more detailed info on that cities weather, ex) current time, current temperature, chance of precipitation, etc.

We are going to hardcode the weather data in this version of the app.

## Setup

Download this starter project:

<https://drive.google.com/open?id=0BxVqLX0POofMWVBUUSDNXVHdOa1k>

# Instructions

We are going to do this whole assignment programmatically, ie) no storyboards.

Add a `City` Class with weather information properties.

In your appDelegate, initialize city objects for Vancouver and 4 other international cities.

In your appDelegate, create a tab bar controller and set it as the root view controller.

Create a view controller class called `CityViewController`.

Next, initialize five `CityViewController` instances, one for each city. Create navigation controllers for each of the city view controllers, set the root view of those navigation controllers to the corresponding city view controller, and add each city's navigation controller to your tab view controller.

Create another view controller called `DetailedViewController`. This one will be one to just show additional weather data.

Back in the city view controller's class implementation file, create a property of a `DetailedViewController`. Now implement a `showWeatherDetails` method that creates an instance of the `DetailedViewController` and tells the city view controller's navigation controller to push the weather details view controller

onto its view controller's stack. Before telling it to push it onto the stack, set the properties of the detailed view controller.

## Steps

1. Add images to the tab bar buttons for each city.
2. Add a way for the user to add new cities. Display a modal view controller with text fields for the city name and weather values, and create a new city object with those inputs.
3. Pick some tints for each of the city view controllers and see how it affects the buttons. Make the tint get passed on to the weather details view controller's labels.
4. Create custom view controller transitions, first non-interactive and then interactive, using the tutorial here:

<http://www.objc.io/issue-5/view-controller-transitions.html>

## Resources / References

1. [View Controllers \(Apple\)](#)
2. [UINavigationController Class Reference](#)
3. [UITabBarController Class Reference](#)