CMPE 277
Lab 3 - SJSU Interactive Map

Introduction

In this lab you're going to implement an interactive SJSU campus map with either Objective-C or Swift. The lab is **group** based, with maximum **3** people allowed in each group.

User Interface:

1. **Map**: This will be the main screen of your application, and it will display the provided map image.
2. **Search bar**: A search bar to allow user search by building abbreviation (You have to use **UISearchBar**)
3. **Building detail**: This ViewController will present more detailed information on the selected building.

Features:

1. **Map:** Use the attached image as the map. (Don NOT use mapview provided by Apple or Google!)
2. **Zoom in/out:** User should be able to pinch to zoom in/out on your map.
   a. All functionalities should work as expected regardless the zoom level.
   b. The zoom level must be persistent; i.e., after you restart your app, the user sees the **same** zoom level where he left it.
3. **Building detail:** A screen with the selected building detail should be presented when user tap on a specific building on your map.
   a. Building name
   b. Address
   c. Walking distance and time from your current location to the building
      i. Google api should be used to retrieve the time estimation
         1. https://developers.google.com/maps/documentation/distance-matrix/intro
         2. **Hint:** Use **longitude**,**latitude** of the user as origin and provided **address** in **4a** as destination
   d. A photo of the building
   For simplicity, you can provide details for **only** the six building listed below.
4. **Search:** Allow user to search by building name(bolded below), and the found building should be highlighted and centered on the map at zoom level 100%.
   a. Building names(Case-insensitive) and addresses:
      i. **King Library**: Dr. Martin Luther King, Jr. Library, 150 East San Fernando Street, San Jose, CA 95112
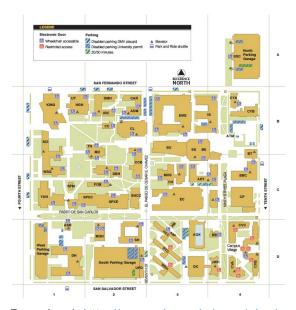
  ii. **Engineering Building**: San José State University Charles W. Davidson College of Engineering, 1 Washington Square, San Jose, CA 95112

  iii. **Yoshihiro Uchida Hall**: Yoshihiro Uchida Hall, San Jose, CA 95112

  iv. **Student Union**: Student Union Building, San Jose, CA 95112

  v. **BBC**: Boccardo Business Complex, San Jose, CA 95112

  vi. **South Parking Garage**: San Jose State University South Garage, 330 South 7th Street, San Jose, CA 95112

5. **Current location**: the current location of the user must be shown on the map with a small red circle.

Device & screen size

We are going to check the assignments on iPhone 6 simulator, please make sure the UI looks good.

Submission instruction: You will get a **PENALTY** for failing to follow the instruction

1. Submit **1 zip** file contains:
   a. README.txt with team member information
   b. Screenshots for each views.
   c. Whole Xcode Project folder(The default folder structure must be retained)
2. Submission comment:
   a. Write your team member information at the comments field on canvas.

Download: http://www.sjsu.edu/map/pics/campusmap.jpg