

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

