

## Exercise 7

### Mobile Device Development

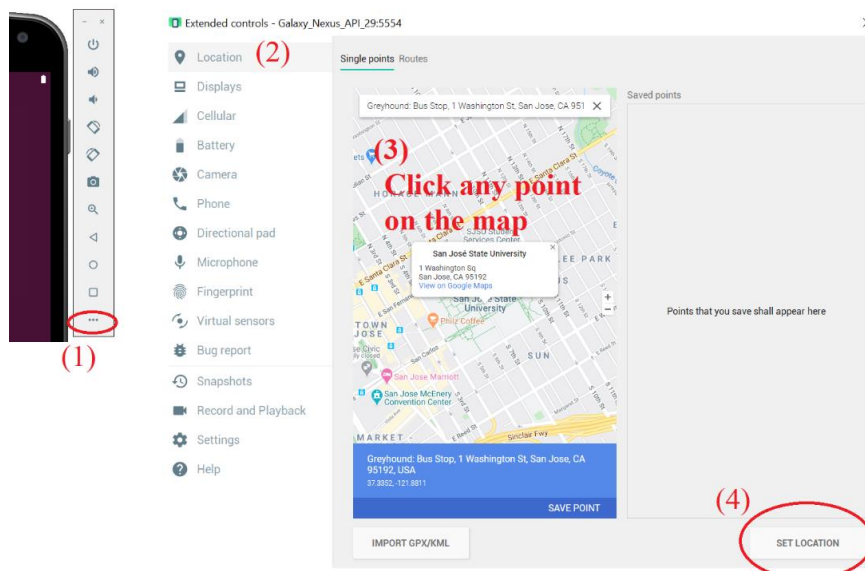
Due: 11/3/2020

Please complete the Android Location (Example 1 starting Slide 30) and Maps (Example 2 starting Slide 31) examples that was discussed in class as part of the lecture.

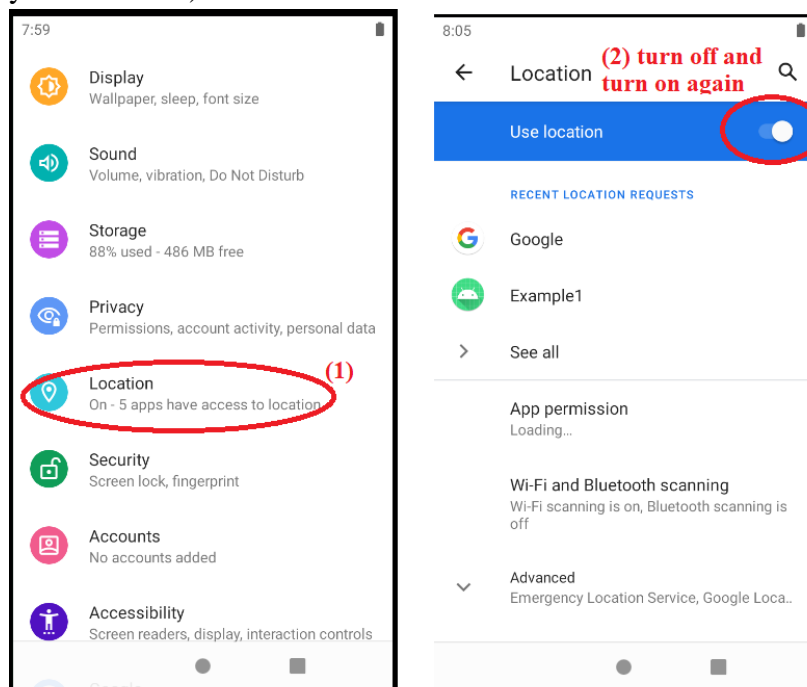
Please Note:

For example1, if you're using an emulator and no message showed when click "Show Location", try:

- 1) Set the location on emulator as shown below (it maybe different depends on your emulator, but you should be able to either input or select a location)



- 2) Turn off the GPS and turn on it again in settings (you may need to find out how to go to the settings on your emulator)



For example2, you need to obtain a google api key. Simply choose “Google Maps Activity” when creating the application. Then it will redirect to google\_maps\_api.xml file as shown below.

```
<resources>
| <!--
|     TODO: Before you run your application, you need a Google Maps API key.
|
|     To get one, follow this link, follow the directions and press "Create" at the end:
|
|     https://console.developers.google.com/flows/enableapi?apiid=maps\_android\_backend&keyType=CLIENT\_SIDE\_ANDROID
|
|     You can also add your credentials to an existing key, using these values:
|
|     Package name:
|     edu.sjsu.android.myapplication
|
|     SHA-1 certificate fingerprint:
|     20:CD:64:98:0D:CB:05:CA:C0:E3:E3:EA:75:1D:75:65:29:74:1D:6A
|
|     Alternatively, follow the directions here:
|     https://developers.google.com/maps/documentation/android/start#get-key
|
|     Once you have your key (it starts with "AIza"), replace the "google_maps_key"
|     string in this file.
|     -->
|     <string name="google_maps_key" templateMergeStrategy="preserve" translatable="false">YOUR_KEY_HERE</string>
|
| </resources>
```

(1) copy and go to this link

(5) Replace here with the key you copied

The screenshot shows the Google API Console interface. On the left, the 'Credentials' section is active, showing a 'Continue' button circled in red with a red arrow pointing to the right. On the right, the 'API Keys' section is shown, with a 'Create API key' button circled in red and a red arrow pointing down to the 'API Keys' table. The table has columns: Name, Creation date, Restrictions, Key, and Usage with all services (last 30 days). A red arrow points to the 'Key' column of the first entry, which is circled in red. A red arrow also points to the 'Usage with all services' column of the same entry, which is circled in red.

Register your application for Maps SDK for Android in Google API Console

Google API Console allows you to manage your application and monitor API usage.

Select a project where your application will be registered

You can use one project to manage all of your applications, or you can create a different project for each application.

Create a project

Continue (2)

The API is enabled

The project has been created and Maps SDK for Android has been enabled.

Next, you'll need to create an API key in order to call the API.

Create API key (3)

Remember to configure the OAuth consent screen with information about your application. CONFIGURE CONSENT

API Keys

<input type="checkbox"/>	Name	Creation date ↓	Restrictions	Key	Usage with all services (last 30 days)
<input type="checkbox"/>	API key 1	Apr 8, 2020	Android apps	AIzaSyC0Es...MS1FiKp2Ec	0

(4) Click to copy the key

## Submission

1. Push your project directory along with the source to remote bitbucket repository by the due date.
2. Invite and share your project repository the Grader (yan.chen01@sjsu.edu) and Instructor (ramin.moazeni@sjsu.edu).
3. Submit a Readme.pdf to Canvas including your name, repository access link, instructions to run your program (if any), snapshot of your running program
4. Your project directory will be graded according to the state your project directory was in at due time when fetched.