

Cosc 5/4735
Due: Feb 13

Program #2
50 points

Write the following phone app. The goal is learn to combine varying complex pieces together into a one program.

Your app will do the following. It will have GPS (using fuse APIs) and maps. Inside the app, the user will be able to take a picture. That picture will be shown on the map (via the gps location for where it was taken). The user will be able to click on a landmark marker and the picture will be displayed again. The information does not have to survive the app closing (ie you don't have to save the pictures to the filesystem), but can if you want to.

I would suggest, but it is not required:

The app displays the map as default screen with the GPS running, so the information is already available when the use takes a picture. The user can then use something like FAB, a menu, BottomNavigationView, or even a Navigation drawer layout to start the picture taking process, which is likely a call to a "camera" intent or camera fragment. Once the picture has been returned, then location is determined and a location marker is placed on the map at the current GPS location. When the user clicks on the location marker, it brings up the picture for the user see (which again, is likely a dialog or fragment). Examples you might find useful, LocationAwareDemo, MapDemoV2, and PicCaptureIntent (or picCapture1 or picCapture2 or CameraXdemo).

PROGRAM REQUIREMENTS:

You must use Google Maps API, Fuse API (not straight gps), and camera. Everything else is up to you to decide how to implement it, but it should be easy for the grader to use.

GRADUATE only section:

You **can not** use the camera intent, instead you must implement the camera picture taking in your app.

TURN IN and GRADING:

Soft copy:

1. Use this link to create your repo <https://classroom.github.com/a/8tT9r0yb>
2. Upload your project to your repo
3. Upload your debug.keystore and default.keyset (found in c:\users\\.android\ to the base directory of the repo. (DO NOT upload a developer key, assuming you have one.) This is so we doesn't have to create new API keys to grade the assignment.
4. Create/Edit the readme.md file, add the following:
 - o Course number 5735 or 4735
 - o Name
 - o How to run the program.
 - o Which phone/emulator to run on including special information like android version (ie 13) and screen size.
 - Or if you are using the borrowed a phone: pixel 4a, etc.
5. Lastly ensure everything has uploaded to the GitHub website and not just the local repo.

Code will be graded on correctness, comments, and coding style.