

**Project 3 - Geo-Camera**  
**CSCE 4623 – Mobile Programming – Fall 2019**  
**Due Date – Monday, October 28th, 11:59 PM CT**

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**Task:** You have been tasked with developing an application that allows the use of the camera and Maps API to associate a geographical location with a photograph.

**Expected Operation:** The Geo-Camera application will require the use of the Maps API and the camera sensor. There are two primary work flows: 1) The user will use the Camera sensor (either through an implicit call to the default camera application, or through the Camera API) to take a photograph. 2) The user can view a map centered on the user's current location, populated with markers showing locations that the user has taken photos. These markers should be clickable to show the photo or photos taken at that location. These two work flows should be resident in the same activity as two separate fragments.

The application will be tested on the Google Nexus 6 Phone or Google Pixel 3a. If that does not work, I will attempt operation on the Nexus 6 emulator.

**Rubric:** The project will be graded according to the following rubric:

Category	Description	Percentage
Pass Given Tests	There are a set of example scenarios in this document which you must implement.	50%
Pass Hidden Tests	I will run a set of hidden tests on your application to test operation.	20%
User Experience	How your application looks and feels to the user is important. Consider how you want to implement the UX to appeal to your user.	10%
Coding Comments & Style	Android uses XML and Java as its primary languages. Use the appropriate coding styles (e.g. lowerCamelCase for variables and methods). Comment functions with a description about their behavior, any parameters, any return values, and any shared variables which it manipulates.	10%
Report	A simple, one- or two-page report. The report should have the project name (e.g. To-Do List), a picture of the application, a short description of what you did, and the outcomes (e.g. Did it pass all example tests, if not, why not, your UX design methodology, etc...). The report should use the template found on the website. Failure to do so will result in missed points.	10%

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Table 1: Grading Rubric

**Tests:** The following tests will be run, and the expected output is shown:

1. Open to a map displaying markers of any pictures that have been taken
2. Use a button to launch a live view from the camera sensor for the user to take a photo
3. Capture a photograph to permanent storage
4. Associate the photograph with the current latitude/longitude and timestamp
5. Create a marker at the latitude/longitude of a photograph
6. Populate markers at locations of past photographs when application loads
7. Allow click of marker to show photo taken at that location

**Submission:** You should zip your project directory and submit it through Blackboard.