CS 402: Android Development

Project 1

You will construct an Android app, in Kotlin, that fulfills all the requirements listed below. I recommend you choose a theme that closely matches what you plan on for your final app. This is not required, but may help move your final project forward and provide a solid base to build upon.

Requirements

1. **3 Activities** - At least 2 Activities that are used in the app. The first one may contain a side menu, a bottom navigation bar, a tabbed scroll view, etc, but you will need to launch one other activity.
2. **2 custom Fragments on the same Activity** - Put at least 2 fragments on a single activity and work together (passing information between them or controlling one another). Do not put any code that controls that fragment into the Activity. The Activity may contain code to display that fragment, however, or to initiate a task that the fragment handles. For example, you can call a method on the Maps fragment to cause the camera to zoom in, but is limited to one function call.
3. **Web Service** - Use Retrofit or similar library to make a web service API call to a server on the internet. It can not use the CoinDesk API. Find a unique one that's publicly available.
4. **Camera** - Use the Android camera activity to take a photo (or choose from photos app/service), and display that image (can be the thumbnail/data preview) in an ImageView.

5. **Design Patterns** - Implement the Observer and Singleton pattern. You can use Event Bus and the object keyword for a data repository.
6. **Readme** - Include a Mark Down file in the project directory that outlines basic features of your app. The fancier, the better. Include animated gifs, screenshot images, links and other things to dress up the readme.
7. **Video** - Create a 3-5 minute video of your app, with developer commentary. Post the video with a publicly available link and include that link in your Readme.md file.

Notes

Grading

Completing all requirements gives a base score of 4 out of 5 (80%). To achieve a higher score, add additional content, ideas, design or extra detail. The more you add, the higher the potential grade.

Concepts included in your project, but not covered in class, are great ways to add points to your grade. Design is important and can also increase your score. Feel free to call out any non-obvious, or under the hood enhancements that might not be noticed on a cursory scan of the source code or run through of the application.