User Interface Design Documentation

Maps Activity

- The map activity screen is self explanatory. A Google Map was the best way to display location data, and was chosen because of this, along with its robustness and support. The Maps API can be found here:
https://developers.google.com/maps/documentation/android-api/

- Our maps activity has a toolbar with plus and minus buttons. These button icons are standard and can be found here:
https://www.google.com/design/icons/index.html

- When the user presses the plus and minus buttons, a bottom sheet appears, which will be explained in a later section, and can be found here:
https://github.com/soarcn/BottomSheet

- The menu button reveals a material drawer to the left of the screen, which will be explained in a later section, and can be found here:
https://github.com/mikepenz/MaterialDrawer

BottomSheet

- BottomSheet offers a set of actions from a sheet that appears from the bottom of the screen. The bottom sheet API can be found in the link provided. We chose the bottom sheet because it's a nice overlay on the bottom of the screen, similar to the add button in Photos, and also allows the user to change the icons associated with each action on the bottomsheet.

MaterialDrawer

- MaterialDrawer is our most complex external library in the app. Its API can be found in the link provided. We chose MaterialDrawer for quite a few reasons: firstly it was easy to integrate into our existing app; its API is very easy to use. Furthermore, you can nest drawers when a button in the current drawer is pressed, which accomplished some of the functionality goals we set when we were trying to find a robust drawer. The drawer can also have different profiles, different colors, and different profile pictures, even though we didn't use the majority of those features. Simply put, it was the most flexible and complete solution for our app. There is also an app in the Play Store for developers to download to see MaterialDrawer in action.