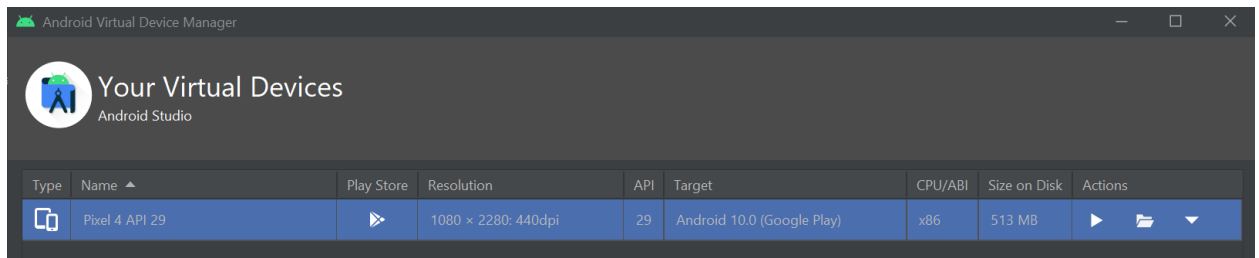


This is how I build and run my app.

1. Download the source code from my GitHub in the LitterBugSubmission directory.
2. Open Android Studio and go to **File > Open** and then open the file from wherever you downloaded it to.
3. To run LitterBug using an emulator. Create a new device using the AVD manager and make sure the device has Google Play (This is essential for the use of google maps).

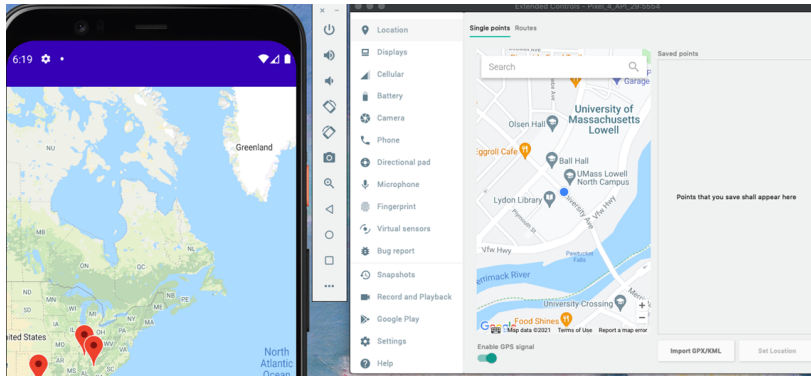


You can also run LitterBug by connecting your android device by USB. Your device must be in developer mode. This link will show you how to put your device in developer mode. <https://www.tutlane.com/tutorial/android/android-test-app-on-real-device-mobile-phone> Once your phone is connected Android Studio should show it as an available device.

You can also download the .apk file directly to your android device from Github. On your device you first have to change your settings to allow for unknown apps. Then using your web browser download the .apk file from Github and allow it to be installed on your device.

4. Once you have created a new android device build LitterBug by clicking **Build > Make Project**.

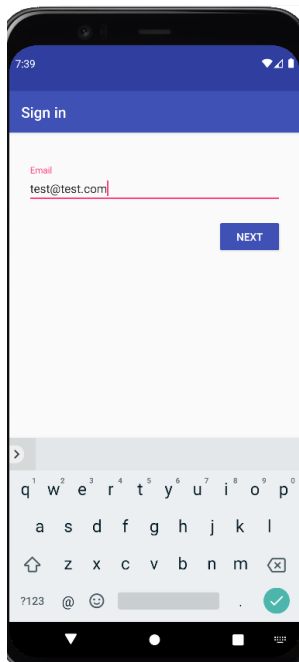
5. If you are going to run LitterBug using an Android emulator you can set your current location as shown below. Note: I've seen that it is sometimes helpful to bring up Google Maps before running my app to get the emulator to recognize the location.



6. Next, run the app by clicking the green triangle play button at the top of the screen.
7. Once the app has been built and launched you will see a home screen. Click the “Sign In” button.



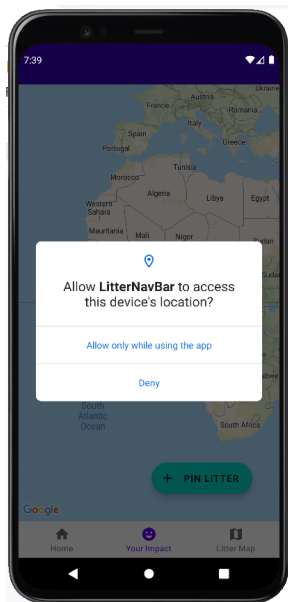
8. Sign in using email: test@test.com and password: testpassword (this has some user data already stored). You can also create your own test account.



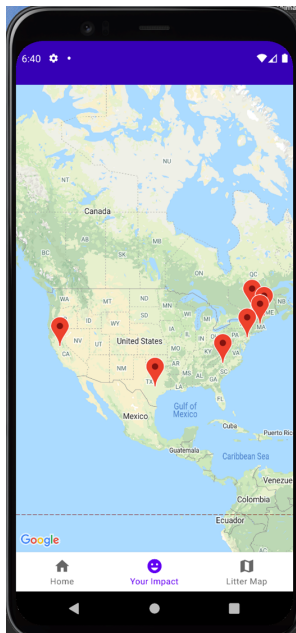
9. Next you will be taken to the LitterBug home screen where you will be able to see the amount of trash the user has picked up. You can also sign out by clicking the “Sign Out” button.



10. When you click on either the Impact tab or the Litter Map tab for the first time you will need to allow LitterBug to access your location.

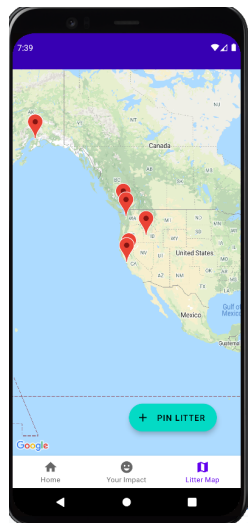


11. You can click on the Impact tab located in the bottom navigation bar where you can see the pinned locations of where the user picked up litter.

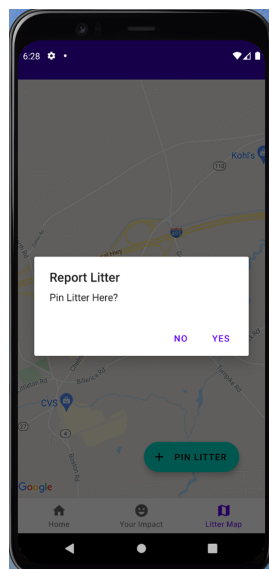


12. You can also click the Litter Map tab.

a. You can pin litter at your current location by clicking the “Pin Litter” button.



b. You can also report litter at any location on the map by clicking the location. A dialog box will ask you to confirm.



- c. You can pick up litter on this map by clicking a marker and clicking “yes” when prompted with “Do you want to pick up the litter at this location?”. You will then be able to see this marker on your Impact map.

