

## **IP Geolocation Project**

- I faced an issue with trying to access an API that does not use SSL encryption. In the design, I had planned to use <http://ip-api.com/json/{IP or DNS}> API to get the info I needed to render in my app. After reading a few articles, I found out that the issue was because Android 9 and later version disallow unencrypted connections.
- -Yes, I made small adjustment to get around this issue. I used two APIs one to get the current host's ip address and another one to get the info about the IP address (country, latitude, longitude,...). This option helped, but the api that gets info about the IP address does not provide the exact longitude and latitude. Places in the same time zone have the same latitude and longitude (For example OKC and Chicago may have the same latitude and longitude).

-The other major deviation I made is to remove the dns (Domain Name Service) lookup functionality. When designing my app, I had intended to allow the user to search for domain names (like google.com). But, the API that used does not provide dns lookup.

- - One improvement would be to allow searching for Domain Names in addition to IP address.

-Another improvement would be to show the host(s) on a map to visualize the relative location of the host with a particular ip address (or domain name).