Faculty of Engineering and Applied Science

SOFE 4640U: Mobile Application Development

Assignment: #2

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Assignment Demo: https://www.youtube.com/watch?v=4rYxjU5n8lU

Github: https://github.com/Mitul2000/Location-Finder-App-MA2

App explanation:

The app works by allowing users to add, remove, search the lat and long for any city or address in the world. It uses both geocoding and reverse geocoding, providing the capability for using latitude and longitude to find an address and also to use an address to get the latitude and longitude for any location. Each instruction in the assignment is followed and explained below

Instructions:

Create a LocationFinder app for the following instructions:

1. Find latitude and longitude of 50 locations by either searching online or using Location-Manager.GPS_PROVIDERon an android phone.
2. Use Geocodingto find 50 addresses of these 50 latitude and longitude pairs

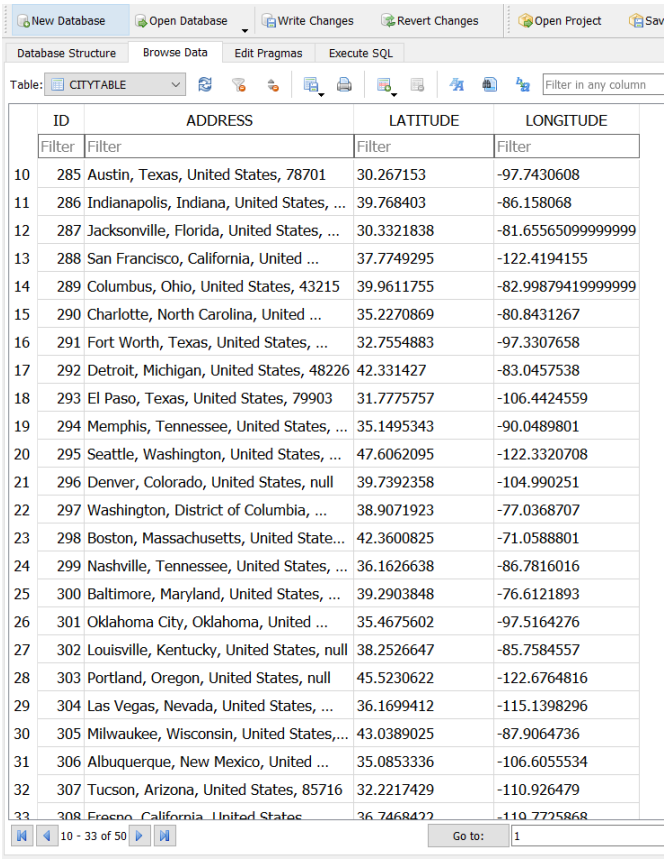
I do this by using a city.json file in the asset directory and I use the first 50 cities in the file to ONLY retrieve their Latitude and Longitude. Once I receive each latitude and longitude, I reverse geocode the location to get the address and I insert the address, latitude and longitude in the database.

a) Retrieve only Latitude and Longitude.
b) Reverse geocode each Latitude and Longitude.

3. Create a database and a location table with four columns(id, address, latitude, longitude)with these 50 locations.

Database populated

Database Table



	ID	ADDRESS	LATITUDE	LONGITUDE
	Filter	Filter	Filter	Filter
10	285	Austin, Texas, United States, 78701	30.267153	-97.7430608
11	286	Indianapolis, Indiana, United States, ...	39.768403	-86.158068
12	287	Jacksonville, Florida, United States, ...	30.3321838	-81.65565099999999
13	288	San Francisco, California, United ...	37.7749295	-122.4194155
14	289	Columbus, Ohio, United States, 43215	39.9611755	-82.99879419999999
15	290	Charlotte, North Carolina, United ...	35.2270869	-80.8431267
16	291	Fort Worth, Texas, United States, ...	32.7554883	-97.3307658
17	292	Detroit, Michigan, United States, 48226	42.331427	-83.0457538
18	293	El Paso, Texas, United States, 79903	31.7775757	-106.4424559
19	294	Memphis, Tennessee, United States, ...	35.1495343	-90.0489801
20	295	Seattle, Washington, United States, ...	47.6062095	-122.3320708
21	296	Denver, Colorado, United States, null	39.7392358	-104.990251
22	297	Washington, District of Columbia, ...	38.9071923	-77.0368707
23	298	Boston, Massachusetts, United State...	42.3600825	-71.0588801
24	299	Nashville, Tennessee, United States, ...	36.1626638	-86.7816016
25	300	Baltimore, Maryland, United States, ...	39.2903848	-76.6121893
26	301	Oklahoma City, Oklahoma, United ...	35.4675602	-97.5164276
27	302	Louisville, Kentucky, United States, null	38.2526647	-85.7584557
28	303	Portland, Oregon, United States, null	45.5230622	-122.6764816
29	304	Las Vegas, Nevada, United States, ...	36.1699412	-115.1398296
30	305	Milwaukee, Wisconsin, United States,...	43.0389025	-87.9064736
31	306	Albuquerque, New Mexico, United ...	35.0853336	-106.6055534
32	307	Tucson, Arizona, United States, 85716	32.2217429	-110.926479
33	308	Fresno, California, United States	36.7468422	-119.7725868

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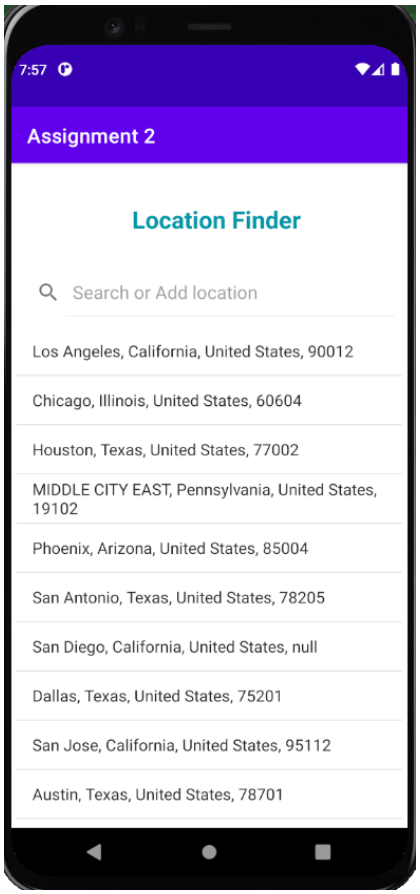
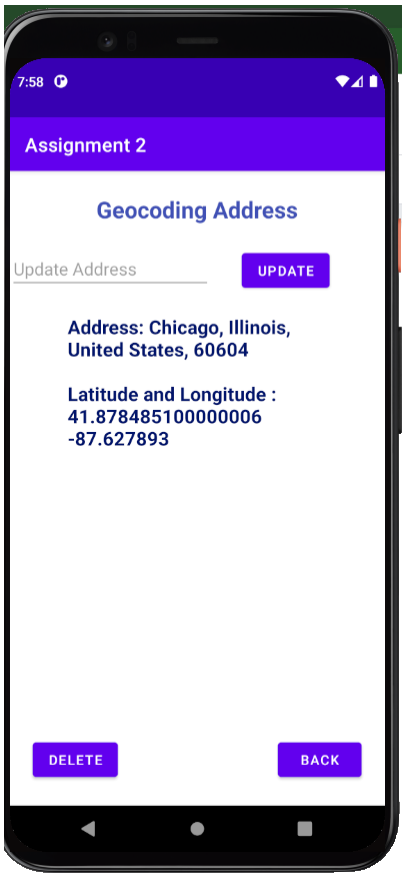
4. A query feature in the app to display latitude and longitude for a given address (if found in the database)

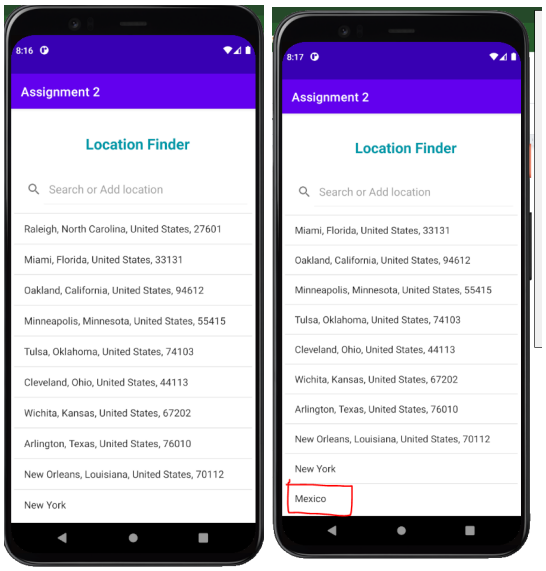
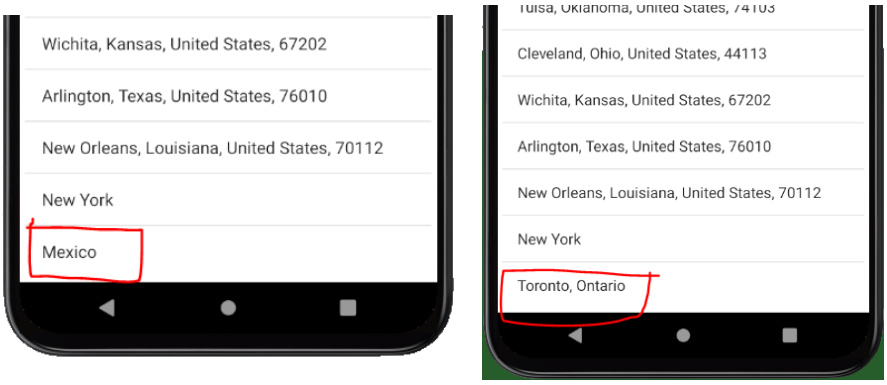
When a user selects an address, it opens another page using the address and geocodes the address to find the latitude and longitude.

Selecting Chicago ----------> Geocoding Page





5. An add, delete, and update feature in the app to add, delete, or update entries into the location table

Tasks	Explanation	Output
Add Query	If an address is not in the list, it will add it to the database and show it on the location finder page	
Update Query	If you click any address, it will take you to the geocoding assignment page and there you can update the name in the database	
Delete Query	Similar to Updating, you can be in the geocoding page and delete the address from the database