Faculty of Engineering and Applied Science

SOFE4640U: Mobile Application Development
Assignment: #2Topic: Basic Android

Name: Mihir Patel

Assignment 2

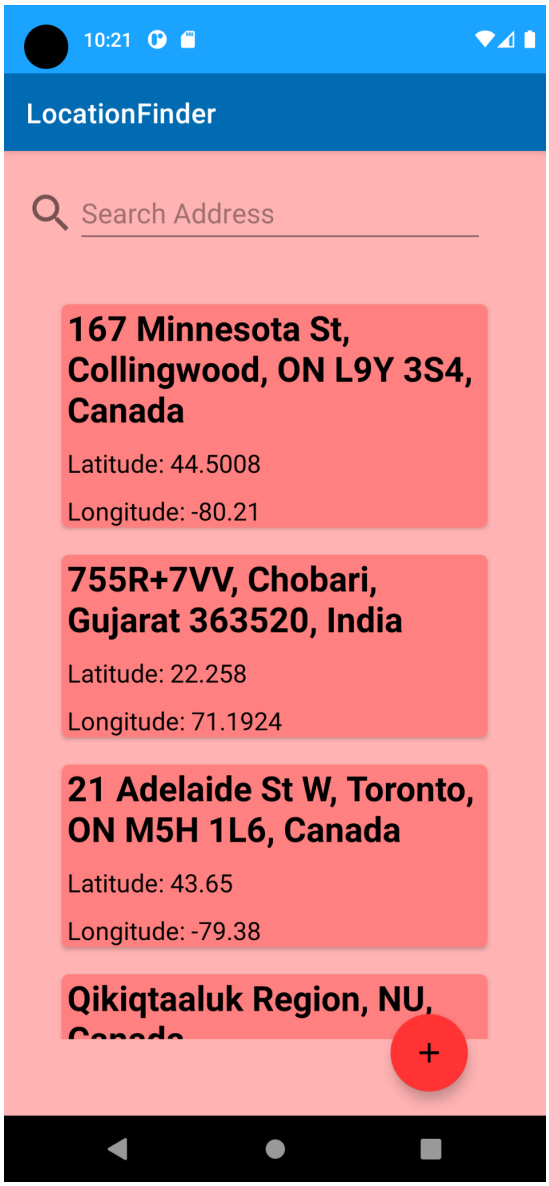
Student Number: 100702168

Application Name: Location Finder
GitHub link: https://github.com/mihirkumar1212/LocationFinder.git

APP Description

The application was developed in order to help a user find a location based on the given longitude and latitude. Users can click on the generate address button after entering the inputs to find an address. Once the address is generated the user can decide if he/she wants to store the address in the application database. The home screen displays all the stored addresses that are stored in the database. It also includes a search query that can be used to search addresses in a database. The application incorporates different layouts, views and intent to make the application easy to use.

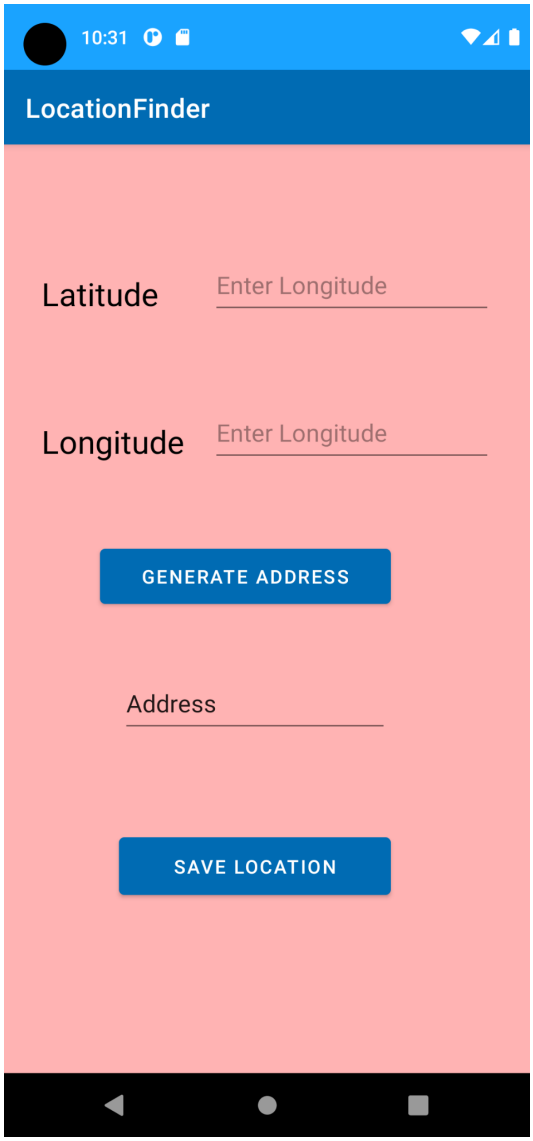
Home Screen



The home page uses the recycler view to display all the information stored in the database. At the top of the page, there is a search view. Users can search for any address that is stored in the database and it will dynamically display on the screen. The query used the “SQL LIKE" function to find all the data similar to the searched address. The recycler view displays the address in bold and below that is the latitude and longitude.

At the bottom of the page, there is an add button. After clicking on the button it will navigate the user to the “Add Location” activity where the user can type the longitude and latitude to generate an address.

Add Page

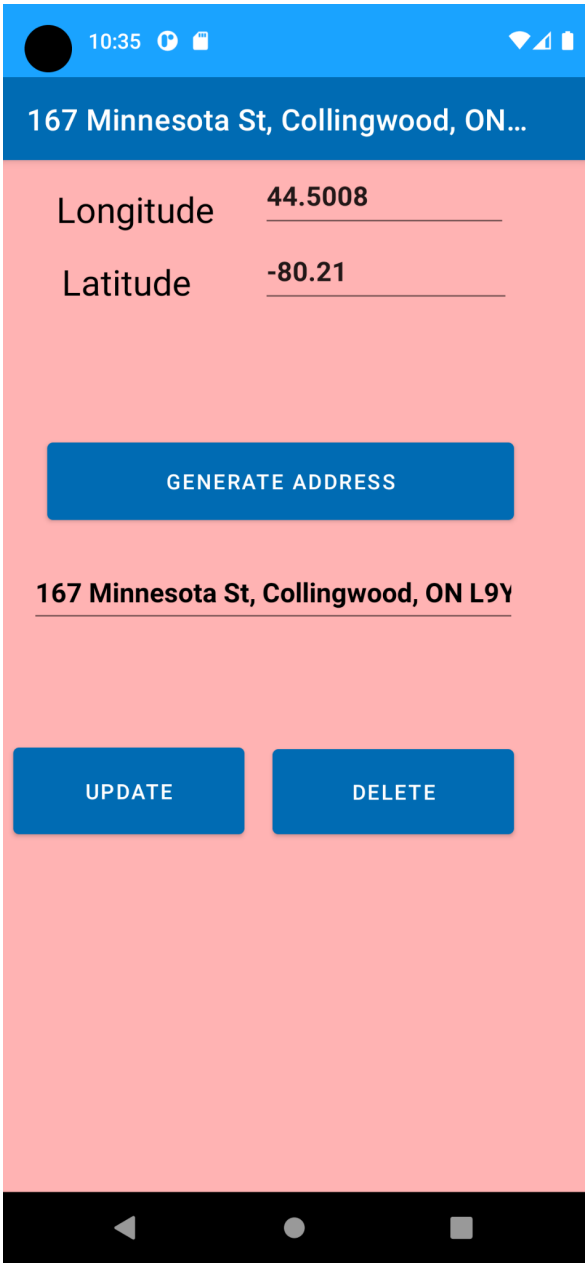


The location Add page can help users find the address of a location, based on the given latitude and longitude. Once the user enters a latitude and longitude the application will validate if the entered inputs are valid.

If Latitude range: - 90 to 90
If longitude range: -180 to 80

If the above conditions are verified once the user clicks the generate address button. If they satisfy the user they will see that the address is displayed on the “Address” section. If no address is found for the given longitude and latitude then the user will be prompted with a toast message to try a different set of coordinates. The save location button will save the coordinates and the address once clicked. After that, the user will be navigated back to the home page. For the purpose of this application I have used geocoder to get the address and postal of of a given address.

Update and Delete Page



This page will allow the user to edit or delete any existing data that is stored in the database. To arrive at the page, the user can click on the desired address that they wish to edit on the home page. After clicking on the address the user will be redirected to the update page where the information that the user entered before will be dynamically updated. Now, the user can either update or delete the information.

If the user decides to pick the delete option then they will be prompted with a dialogue box if they want to confirm the operation or not.

Database

LOCATION_FINDER

Live updates

	ID	Address	Latitude	Longitude
1	1	167 Minnesota St, Collingwood, ON L9Y 3S	44.5008	-80.21
2	2	755R+7VV, Chobari, Gujarat 363520, India	22.258	71.1924
3	4	21 Adelaide St W, Toronto, ON M5H 1L6, Ca	43.65	-79.38
4	5	Qikiqtaaluk Region, NU, Canada	60.1	-80.2
5	6	Atlantic Ocean	32.7	-34.7
6	7	Unnamed Road - Santana do Paraopeba, Br	-20.4	-44.1
7	8	Novaya Zemlya Rayon, Arkhangelsk Oblast,	71.7	51.8
8	9	Łuczanowicka 30, 31-766 Kraków, Poland3	50.1	20.1
9	10	In Salah, Algeria	25.8	3.4
10	11	Region of Queens Municipality, NS, Canada	42.3	-62.1
11	12	Pitkyarantsky District, Republic of Karelia, F	61.2	31.9
12	13	French Polynesia	-10.4	-146.1
13	14	Bangale, Kenya	-0.5	39.1
14	15	Lumuli, Tanzania	-8.1	35.4
15	16	Newfoundland and Labrador, Canada	51.1	-57.3
16	17	Forestville, QC G0T 1E0, CanadaG0T 1E0	49.8	-69.5
17	18	Republic of Karelia, Russia, 186443186443	63.9	33.7
18	19	Pauini - State of Amazonas, 69860-000, Br	-8.1	-67.7
19	20	Antarctica	-86.7	-108.8
20	21	Unnamed Road, Gagetown, NB E5M, Canad	45.7	-66.2
21	22	Yukon Y0B 1Y0, CanadaY0B 1Y0	61.2	-135.5
22	23	St Helena, Ascension and Tristan da Cunha	-7.9	-14.7
23	24	L'Île-d'Anticosti, Quebec, Minganie Regiona	48.4	-62.4
24	25	Likuyuseka, Tanzania	-10.3	36.5

50

Device File Explorer

Emulator

LOCATION_FINDER

Live updates

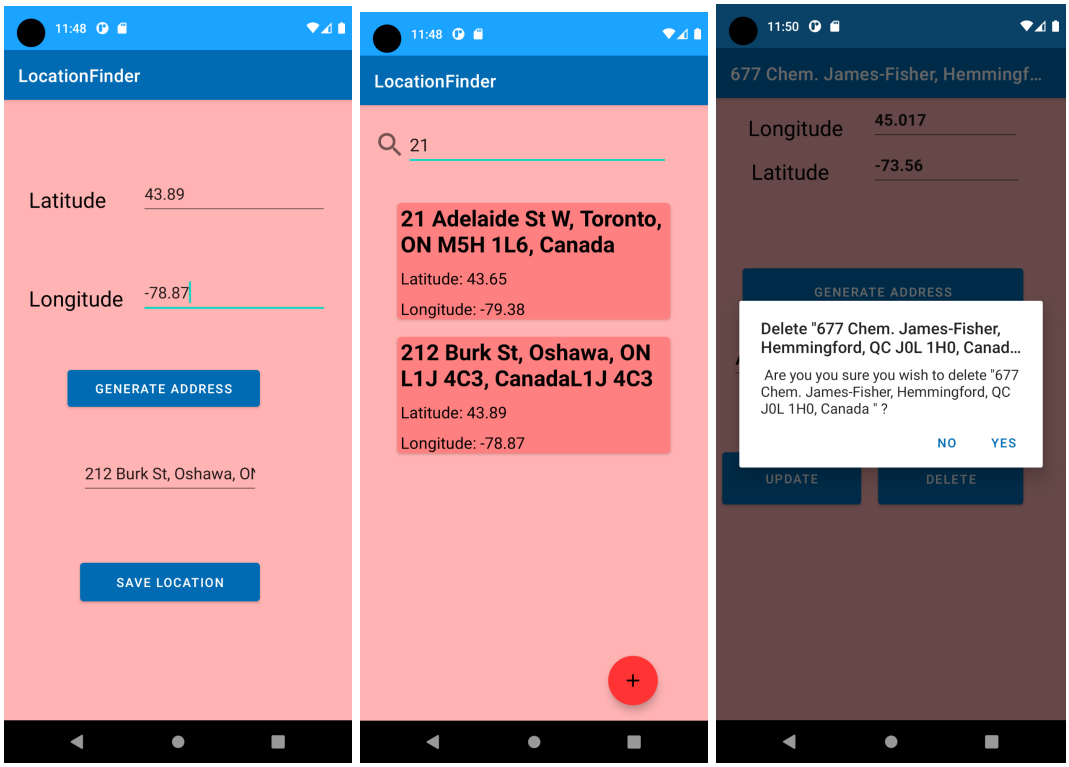
	ID	Address	Latitude	Longitude
27	28	Pyote, TX 79777, USA79777	31.5	-103.1
28	29	3000 S Mayfield Rd, Jackson, WI 53037, US	43.3	-88.2
29	30	Tchirozerine, Niger	18.4	5.0
30	31	Atlantic Ocean	27.6	-56.1
31	32	Al Gash, Sudan	16.2	35.9
32	33	Weddell Sea	-67.3	-32.6
33	34	Vina, Cameroon	6.7	14.0
34	35	Vina, Cameroon	-18.4	-74.7
35	36	Kiribati	-5.7	-168.5
36	37	Gulf of Mexico	25.3	-83.7
37	38	Hall Beach, NU X0A 0K0, CanadaX0A 0K0	67.7	-84.6
38	39	Djanet, Algeria	23.1	10.3
39	40	Ambatofinandrahana, Madagascar	-20.5	46.1
40	41	1160 1st St, New Windsor, NY 12553, USA1	41.5	-74.1
41	42	Indian Ocean	-35.5	20.6
42	43	Atlantic Ocean	32.3	-58.2
43	44	Antarctica	-77.2	43.1
44	45	Algeria	36.8	3.4
45	46	Bolivia	-15.6	-69.3
46	47	Atlantic Ocean	-17.5	-25.3
47	48	Gassman, SD, USA	43.7	-99.7
48	49	Vologda Oblast, Russia, 160528160528	59.0	39.1
49	50	Route sans nom, Côte d'Ivoire	8.4	-3.0
50	51	Antarctica	-77.3	-164.6

50

Device File Explorer

Emulator

Output


11:48
LocationFinder
Latitude
43.89
Longitude
-78.87
GENERATE ADDRESS
212 Burk St, Oshawa, Ol
SAVE LOCATION
11:48
LocationFinder
21
21 Adelaide St W, Toronto, ON M5H 1L6, Canada
Latitude: 43.65
Longitude: -79.38
212 Burk St, Oshawa, ON L1J 4C3, CanadaL1J 4C3
Latitude: 43.89
Longitude: -78.87
+
11:50
677 Chem. James-Fisher, Hemmingf...
Longitude
45.017
Latitude
-73.56
GENERATE ADDRESS
Delete "677 Chem. James-Fisher, Hemmingford, QC J0L 1H0, Canad...
Are you you sure you wish to delete "677 Chem. James-Fisher, Hemmingford, QC J0L 1H0, Canada " ?
NO
YES
UPDATE
DELETE