Reverse Geocoding in QGIS Aim:

To extract location details and save as csv.

Introduction:
Reverse geocoding is the process of converting geographic coordinates (latitude and longitude) into a human-readable address or location description. For example, if you have the coordinates of a location, reverse geocoding can help you determine the exact street address or location name.

Tools:

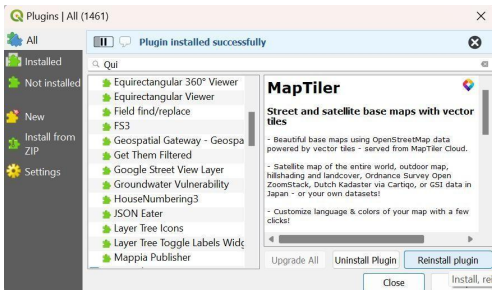
- QGIS: A free tool for mapping and working with geographic data.
- MMQGIS Plugin: An additional tool in QGIS that helps with tasks like reverse geocoding.
- OpenStreetMap (OSM): A free map that provides location data, which is used for reverse geocoding.

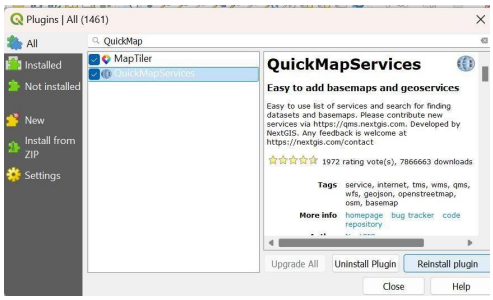
Data Source:

- **OpenStreetMap (OSM):**is used to find the addresses from your coordinates.
- **Location Data CSV file**: Contains the latitude and longitude coordinates

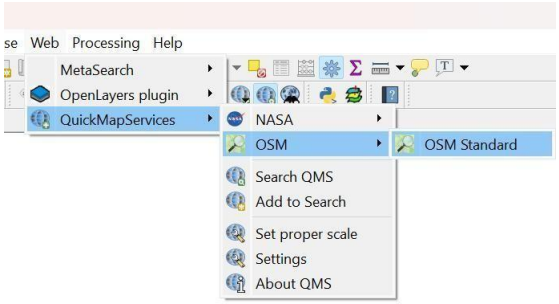
Steps :

Step 1 : Go to plugins and install Map Tiler and QuikMapServices

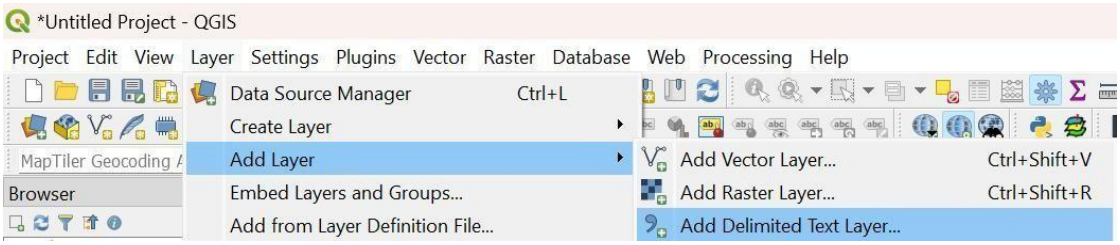


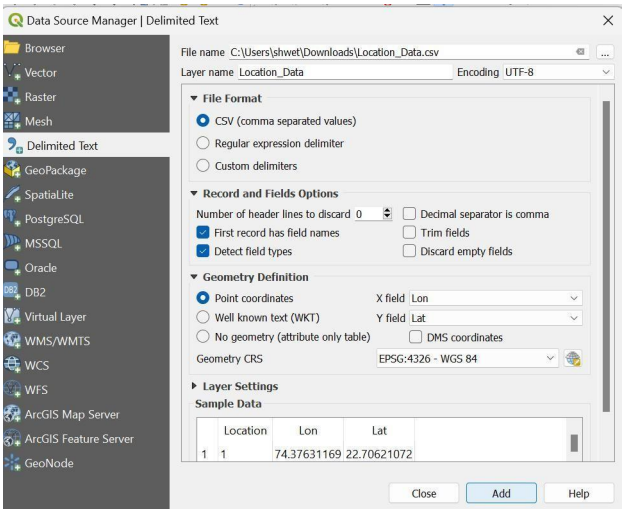


Step 2 : Go to web then click on QuickMapServices and then OSM and then click on OSM standards



Step 3 : Now we need add Location_Data file for this go to layers and click on add layer and then add delimenited text layer

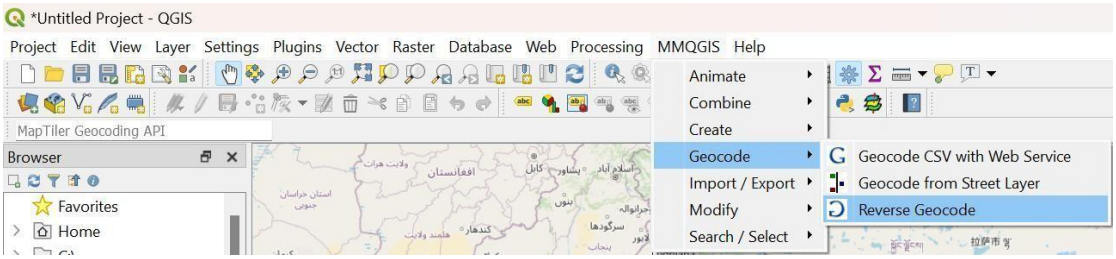




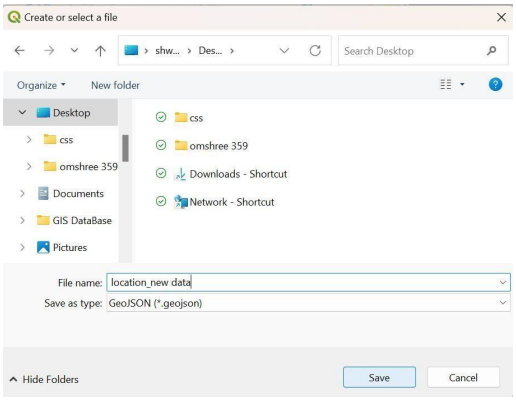
Click on add

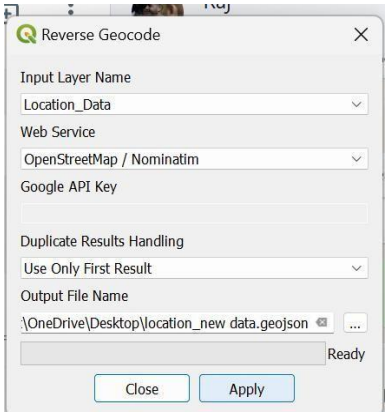
Step 4 : now for extract the location data we need to install mmqgis

Step 5 : then click on MMQGIS then Geocode and then click on Reverse Geocode

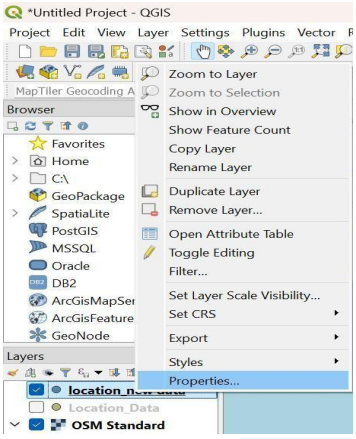


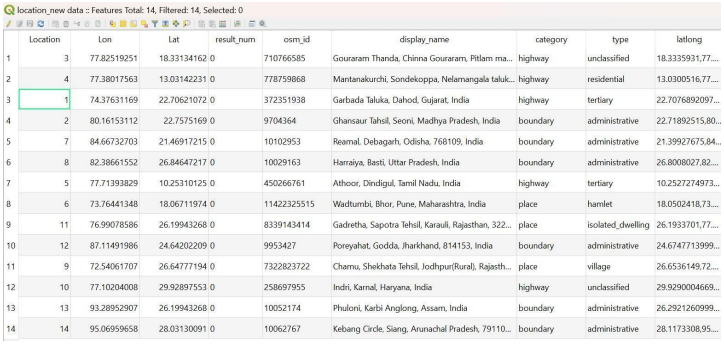
Step 6 : now save output file on your location





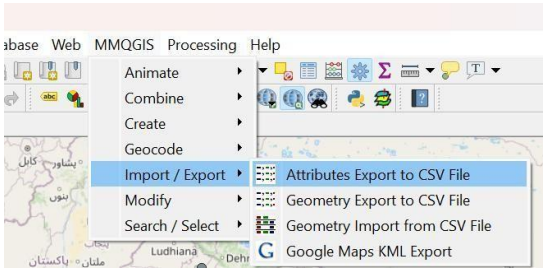
Step 7 : Right click on location _ new data and open attribute table



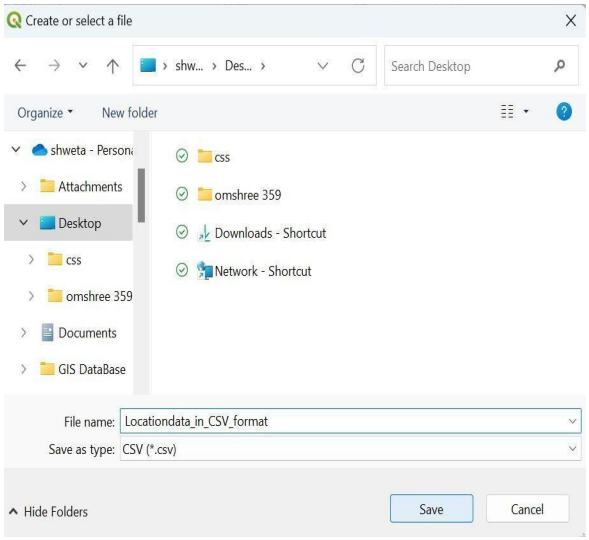


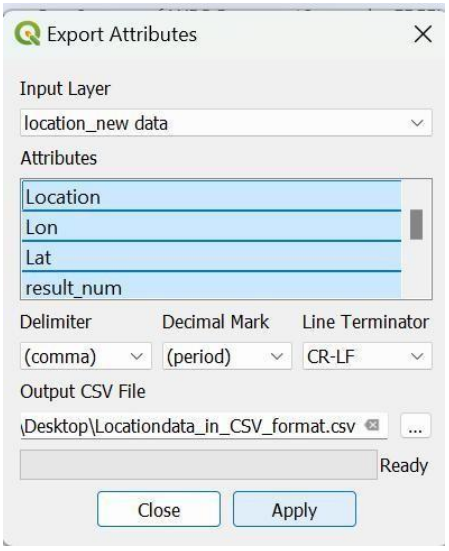
	Location	Lon	Lat	result_num	osm_id	display_name	category	type	latlong
1	3	77.82519251	18.33134162	0	710766585	Gouraram Thanda, Chinna Gouraram, Pitlam ma...	highway	unclassified	18.3335931,77....
2	4	77.38017563	13.03142231	0	778759868	Mantanakurchi, Sondekoppa, Nelamangala taluk...	highway	residential	13.0300516,77....
3	1	74.37631169	22.70621072	0	372351938	Garbada Taluka, Dahod, Gujarat, India	highway	tertiary	22.7076892097...
4	2	80.16153112	22.7575169	0	9704364	Ghansaur Tahsil, Seoni, Madhya Pradesh, India	boundary	administrative	22.71892515,80...
5	7	84.66732703	21.46917215	0	10102953	Reamal, Debagarh, Odisha, 768109, India	boundary	administrative	21.39927675,84...
6	8	82.38661552	26.84647217	0	10029163	Harraiya, Basti, Uttar Pradesh, India	boundary	administrative	26.8008027,82....
7	5	77.71393829	10.25310125	0	450266761	Athoor, Dindigul, Tamil Nadu, India	highway	tertiary	10.2527274973...
8	6	73.76441348	18.06711974	0	11422325515	Wadtumbi, Bhor, Pune, Maharashtra, India	place	hamlet	18.0502418,73....
9	11	76.99078586	26.19943268	0	8339143414	Gadretha, Sapotra Tehsil, Karauli, Rajasthan, 322...	place	isolated_dwelling	26.1933701,77....
10	12	87.11491986	24.64202209	0	9953427	Poreyahat, Godda, Jharkhand, 814153, India	boundary	administrative	24.6747713999...
11	9	72.54061707	26.64777194	0	7322823722	Chamu, Shekhata Tehsil, Jodhpur(Rural), Rajasth...	place	village	26.6536149,72....
12	10	77.10204008	29.92897553	0	258697955	Indri, Karnal, Haryana, India	highway	unclassified	29.9290004669...
13	13	93.28952907	26.19943268	0	10052174	Phuloni, Karbi Anglong, Assam, India	boundary	administrative	26.2921260999...
14	14	95.06959658	28.03130091	0	10062767	Kebang Circle, Siang, Arunachal Pradesh, 79110...	boundary	administrative	28.1173308,95....

Step 8 : now go to MMGQIS and then import / export and then click on attributes to csv file

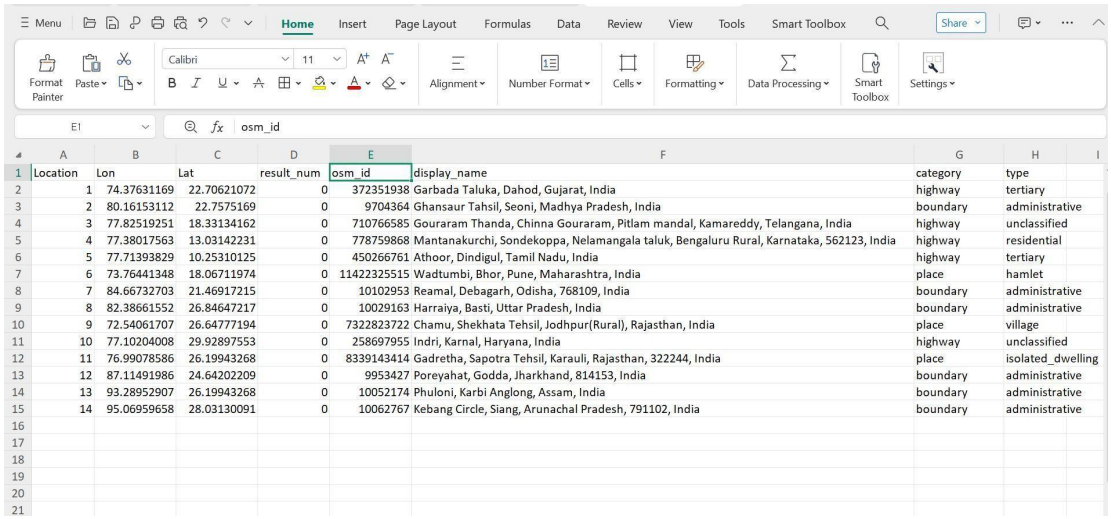


Step 9 : save file





Step 10 : Now go on Location data _in_CSV file
Step 11 : It will show the data



	A	B	C	D	E	F	G	H
1	Location	Lon	Lat	result_num	osm_id	display_name	category	type
2	1	74.37631169	22.70621072	0	372351938	Garbada Taluka, Dahod, Gujarat, India	highway	tertiary
3	2	80.16153112	22.7575169	0	9704364	Ghansaur Tahsil, Seoni, Madhya Pradesh, India	boundary	administrative
4	3	77.82519251	18.33134162	0	710766585	Gouraram Thanda, Chinna Gouraram, Pitlam mandal, Kamareddy, Telangana, India	highway	unclassified
5	4	77.38017563	13.03142231	0	778759868	Mantanakurchi, Sondekoppa, Nelamangala taluk, Bengaluru Rural, Karnataka, 562123, India	highway	residential
6	5	77.71393829	10.25310125	0	450266761	Athoor, Dindigul, Tamil Nadu, India	highway	tertiary
7	6	73.76441348	18.06711974	0	11422325515	Wadtumbi, Bhor, Pune, Maharashtra, India	place	hamlet
8	7	84.66732703	21.46917215	0	10102953	Reamal, Debagarh, Odisha, 768109, India	boundary	administrative
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11	10	77.10204008	29.92897553	0	258697955	Indri, Karnal, Haryana, India	highway	unclassified
12	11	76.99078586	26.19943268	0	8339143414	Gadretha, Sapotra Tehsil, Karauli, Rajasthan, 322244, India	place	isolated_dwelling
13	12	87.11491986	24.64202209	0	9953427	Poreyahat, Godda, Jharkhand, 814153, India	boundary	administrative
14	13	93.28952907	26.19943268	0	10052174	Phuloni, Karbi Anglong, Assam, India	boundary	administrative
15	14	95.06959658	28.03130091	0	10062767	Kebang Circle, Siang, Arunachal Pradesh, 791102, India	boundary	administrative
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Reference:

Data set : https://drive.google.com/file/d/17jXv4vf2CxdJ-QEW3gsY_iFVKPcw5bhf/view

Github: https://github.com/AmrutaSatpute18005/GIS-project/blob/main/gis%20project.qgz

Conclusion : The above project has been implemented and executed successfully.