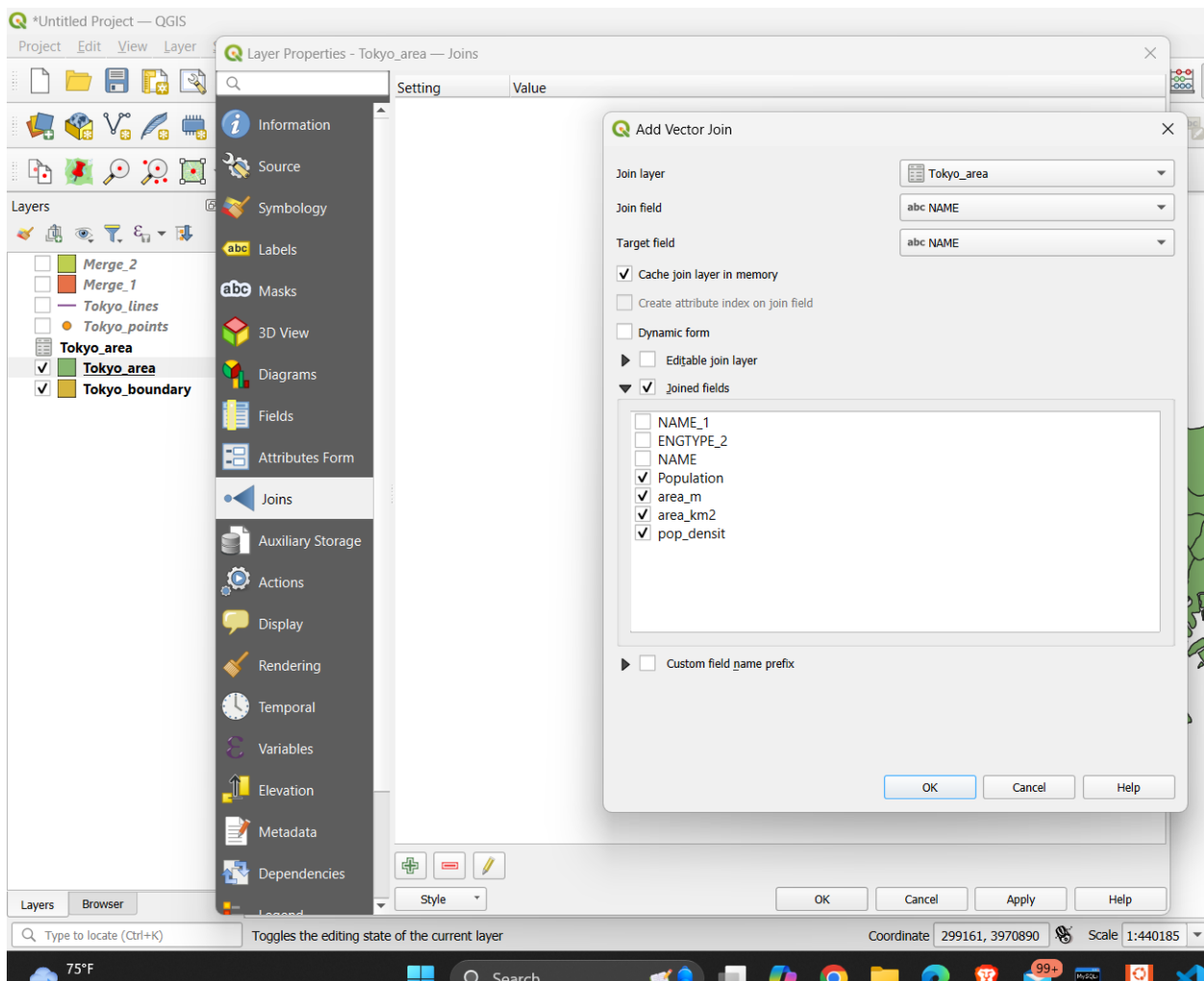


# LAB-2

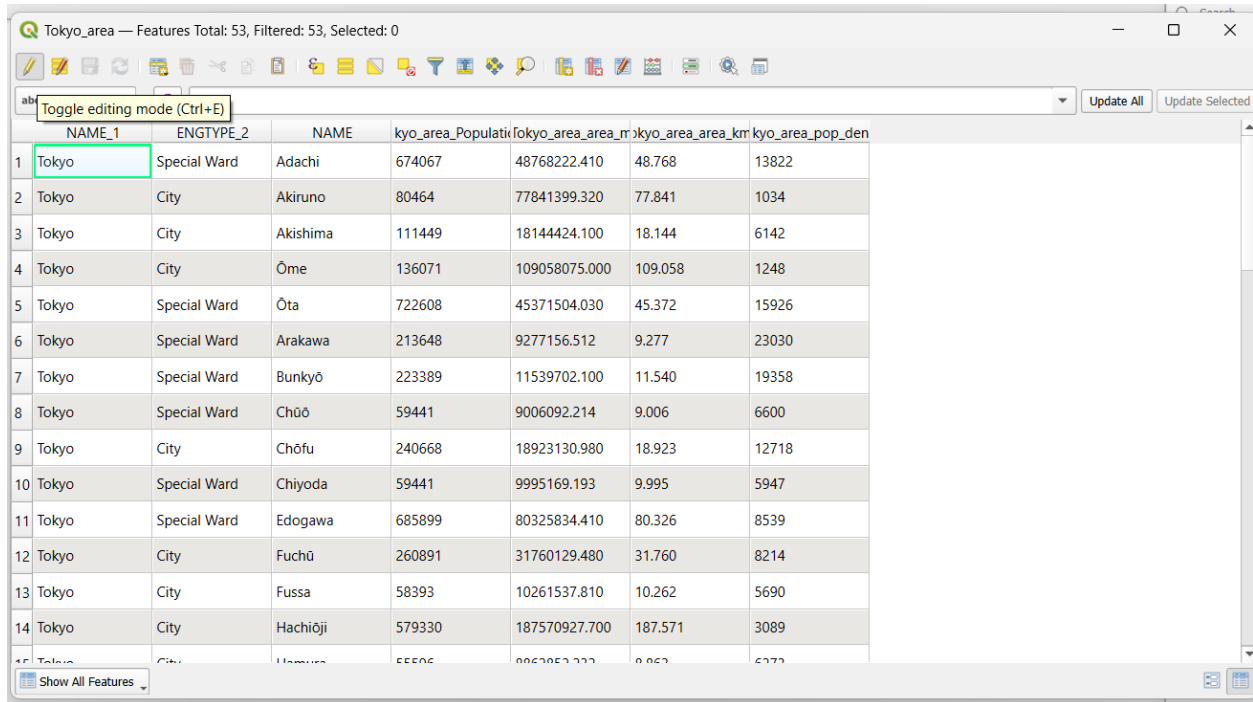
2021101107-sajja

## JOIN/UNJOIN EXCEL FILE TO ATTRIBUTE TABLE

We will go to tokyo\_area.shp → properties → joins → add join → change join layer to 'tokyo\_area' → join field and target field as "NAME" → select 'joined fields' → select your desired columns → select OK.



For seeing the desired rows even when the shp file isnt joined with the csv file, we will choose tokyo area shp file→attribute table→toggle editing→open field calculator→write the row name acc to values→go to fields and values→choose the column you want to replicate→select ok→once all 4 columns are copied then select pencil icon and save.



	NAME_1	ENGTYP_2	NAME	kyo_area_Population	tokyo_area_area_m	kyo_area_area_km	kyo_area_pop_den
1	Tokyo	Special Ward	Adachi	674067	48768222.410	48.768	13822
2	Tokyo	City	Akiruno	80464	77841399.320	77.841	1034
3	Tokyo	City	Akishima	111449	18144424.100	18.144	6142
4	Tokyo	City	Ôme	136071	109058075.000	109.058	1248
5	Tokyo	Special Ward	Ôta	722608	45371504.030	45.372	15926
6	Tokyo	Special Ward	Arakawa	213648	9277156.512	9.277	23030
7	Tokyo	Special Ward	Bunkyo	223389	11539702.100	11.540	19358
8	Tokyo	Special Ward	Chûô	59441	9006092.214	9.006	6600
9	Tokyo	City	Chôfu	240668	18923130.980	18.923	12718
10	Tokyo	Special Ward	Chiyoda	59441	9995169.193	9.995	5947
11	Tokyo	Special Ward	Edogawa	685899	80325834.410	80.326	8539
12	Tokyo	City	Fuchû	260891	31760129.480	31.760	8214
13	Tokyo	City	Fussa	58393	10261537.810	10.262	5690
14	Tokyo	City	Hachioji	579330	187570927.700	187.571	3089
15	Tokyo	City	Hama	55566	8853853.333	8.853	6333

We have done the above replication method for all the four columns that we joined in the first step from the csv file. Now the attribute table for the Tokyo\_area.shp looks like the image below:

Q Tokyo\_area — Features Total: 53, Filtered: 53, Selected: 0

NAME_1	ENGTYPE_2	NAME	kyo_area_Populatsi	kyo_area_m	kyo_area_area_km	kyo_area_pop_den	area_m	area_kms	popdens	area_pop
1 Tokyo	Special Ward	Adachi	674067	48768222.410	48.768	13822	48768222	49	13822	674067
2 Tokyo	City	Akiruno	80464	77841399.320	77.841	1034	77841399	78	1034	80464
3 Tokyo	City	Akishima	111449	18144424.100	18.144	6142	18144424	18	6142	111449
4 Tokyo	City	Ôme	136071	109058075.000	109.058	1248	109058075	109	1248	136071
5 Tokyo	Special Ward	Ôta	722608	45371504.030	45.372	15926	45371504	45	15926	722608
6 Tokyo	Special Ward	Arakawa	213648	9277156.512	9.277	23030	9277157	9	23030	213648
7 Tokyo	Special Ward	Bunkyo	223389	11539702.100	11.540	19358	11539702	12	19358	223389
8 Tokyo	Special Ward	Chûo	59441	9006092.214	9.006	6600	9006092	9	6600	59441
9 Tokyo	City	Chôfu	240668	18923130.980	18.923	12718	18923131	19	12718	240668
10 Tokyo	Special Ward	Chiyoda	59441	9995169.193	9.995	5947	9995169	10	5947	59441
11 Tokyo	Special Ward	Edogawa	685899	80325834.410	80.326	8539	80325834	80	8539	685899
12 Tokyo	City	Fuchû	260891	31760129.480	31.760	8214	31760129	32	8214	260891
13 Tokyo	City	Fussa	58393	10261537.810	10.262	5690	10261538	10	5690	58393
14 Tokyo	City	Hachioji	579330	187570927.700	187.571	3089	187570928	188	3089	579330
15 Tokyo	City	Hamura	55596	8862852.232	8.863	6273	8862852	9	6273	55596
16 Tokyo	City	Higashikurume	116869	11937470.710	11.937	9790	11937471	12	9790	116869
17 Tokyo	City	Higashimuraya...	150984	18518925.250	18.519	8153	18518925	19	8153	150984
18 Tokyo	City	Higashiyamato	85229	15285584.140	15.286	5576	15285584	15	5576	85229
19 Tokyo	Town	Hinode	17141	24808514.020	24.809	691	24808514	25	691	17141
20 Tokyo	Town	Hinohara	2194	103315408.000	103.315	21	103315408	103	21	2194
21 Tokyo	City	Hino	185133	28881958.840	28.882	6410	28881959	29	6410	185133
22 Tokyo	City	Inagi	87927	15103608.090	15.104	5821	15103608	15	5821	87927
23 Tokyo	Special Ward	Itabashi	569225	36391036.200	36.391	15642	36391036	36	15642	569225

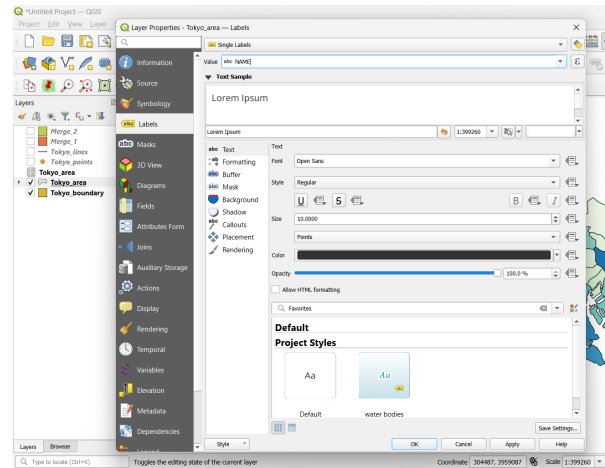
Show All Features

Now we will again go to properties of tokyo\_area.shp file and remove the above join with csv file. Then we open the attribute table of the same shapefile to find only the columns we had replicated in the previous step( shown below):

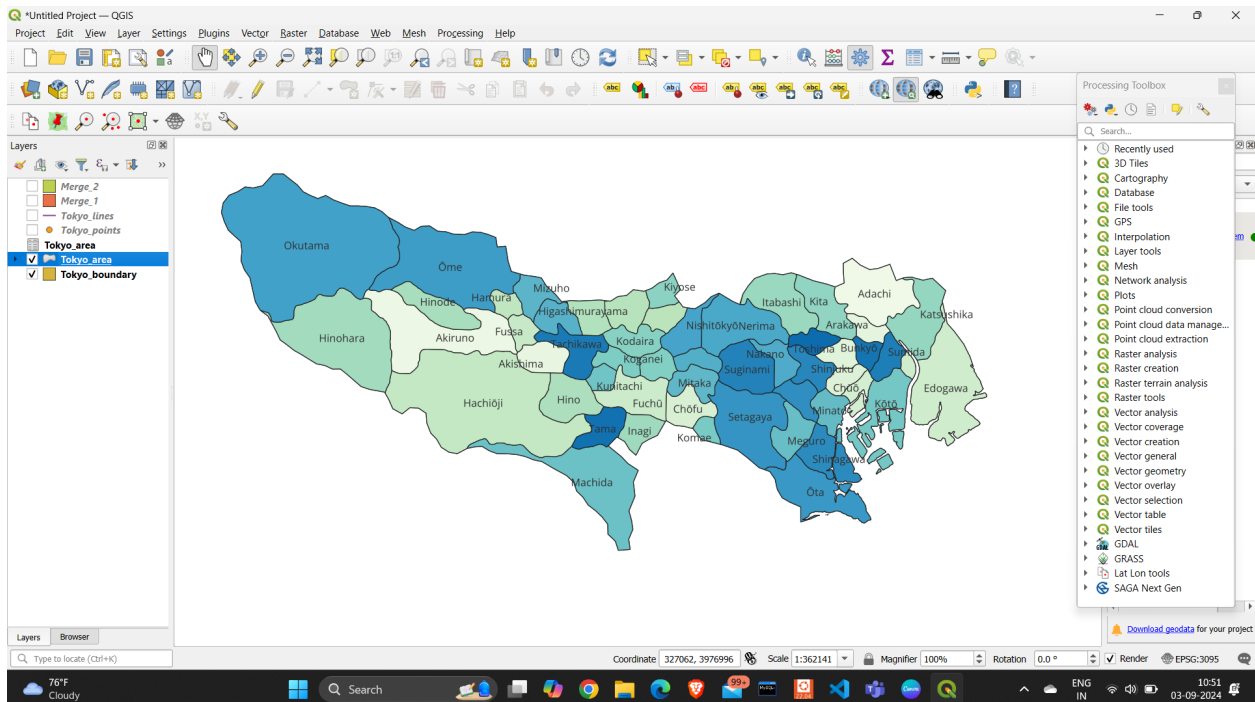
Q Tokyo\_area — Features Total: 53, Filtered: 53, Selected: 0

NAME_1	ENGTYPE_2	NAME	area_m	area_kms	popdens	area_pop
1 Tokyo	Special Ward	Adachi	48768222	49	13822	674067
2 Tokyo	City	Akiruno	77841399	78	1034	80464
3 Tokyo	City	Akishima	18144424	18	6142	111449
4 Tokyo	City	Ôme	109058075	109	1248	136071
5 Tokyo	Special Ward	Ôta	45371504	45	15926	722608
6 Tokyo	Special Ward	Arakawa	9277157	9	23030	213648
7 Tokyo	Special Ward	Bunkyo	11539702	12	19358	223389
8 Tokyo	Special Ward	Chûo	9006092	9	6600	59441
9 Tokyo	City	Chôfu	18923131	19	12718	240668
10 Tokyo	Special Ward	Chiyoda	9995169	10	5947	59441
11 Tokyo	Special Ward	Edogawa	80325834	80	8539	685899
12 Tokyo	City	Fuchû	31760129	32	8214	260891
13 Tokyo	City	Fussa	10261538	10	5690	58393
14 Tokyo	City	Hachioji	187570928	188	3089	579330
15 Tokyo	City	Hamura	8862852	9	6273	55596
16 Tokyo	City	Higashikurume	11937471	12	9790	116869
17 Tokyo	City	Higashimuraya...	18518925	19	8153	150984
18 Tokyo	City	Higashiyamato	15285584	15	5576	85229
19 Tokyo	Town	Hinode	24808514	25	691	17141
20 Tokyo	Town	Hinohara	103315408	103	21	2194
21 Tokyo	City	Hino	28881959	29	6410	185133
22 Tokyo	City	Inagi	15103608	15	5821	87927
23 Tokyo	Special Ward	Itabashi	36391036	36	15642	569225
24 Tokyo	Special Ward	Koto	39438117	39	12744	502579

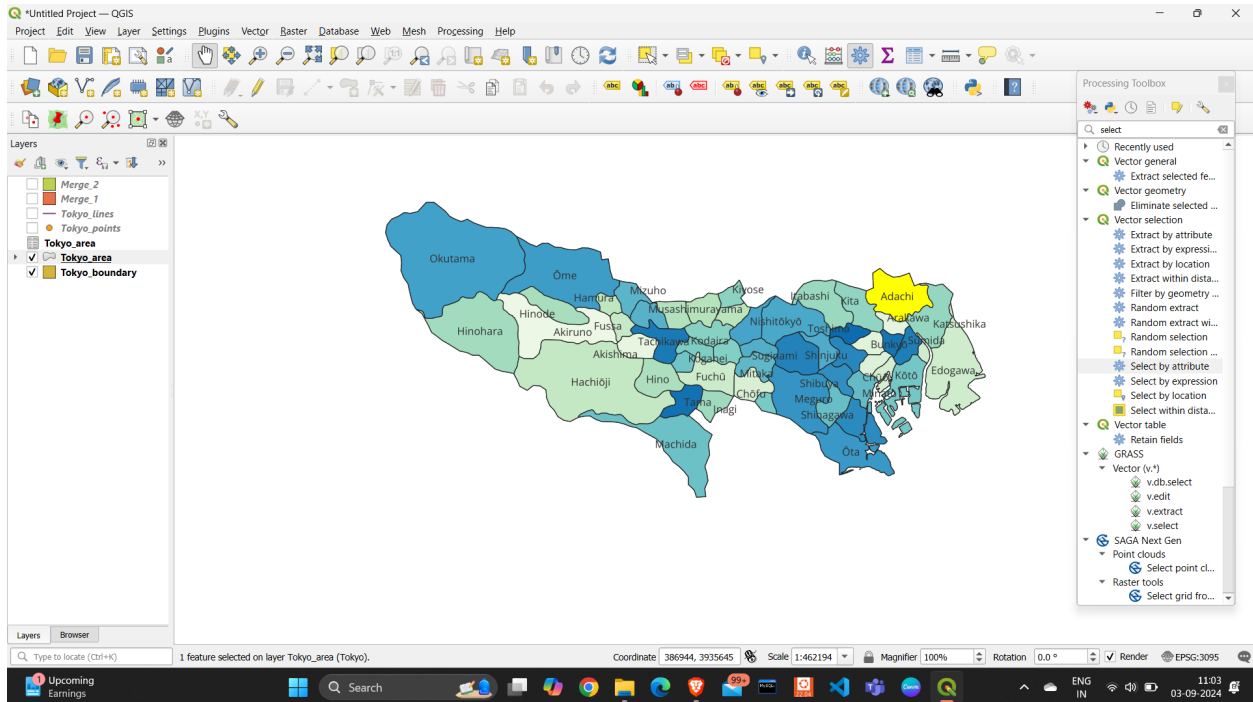
Show All Features

[illegible]

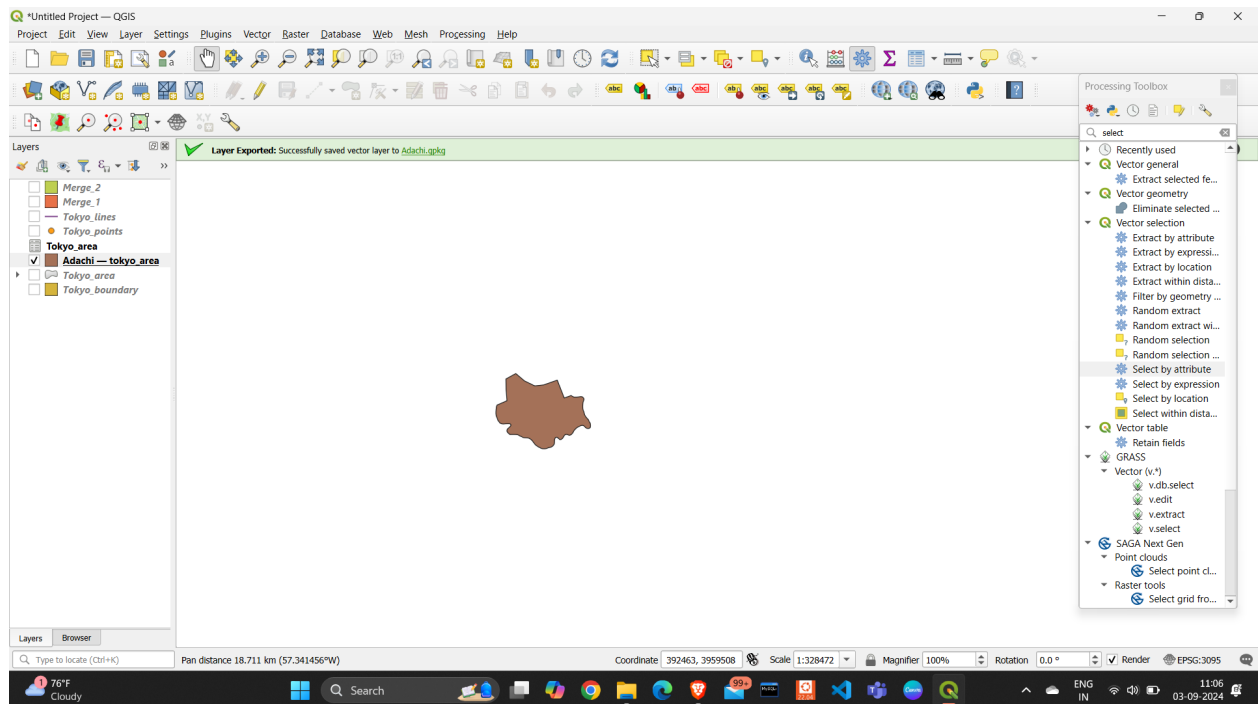
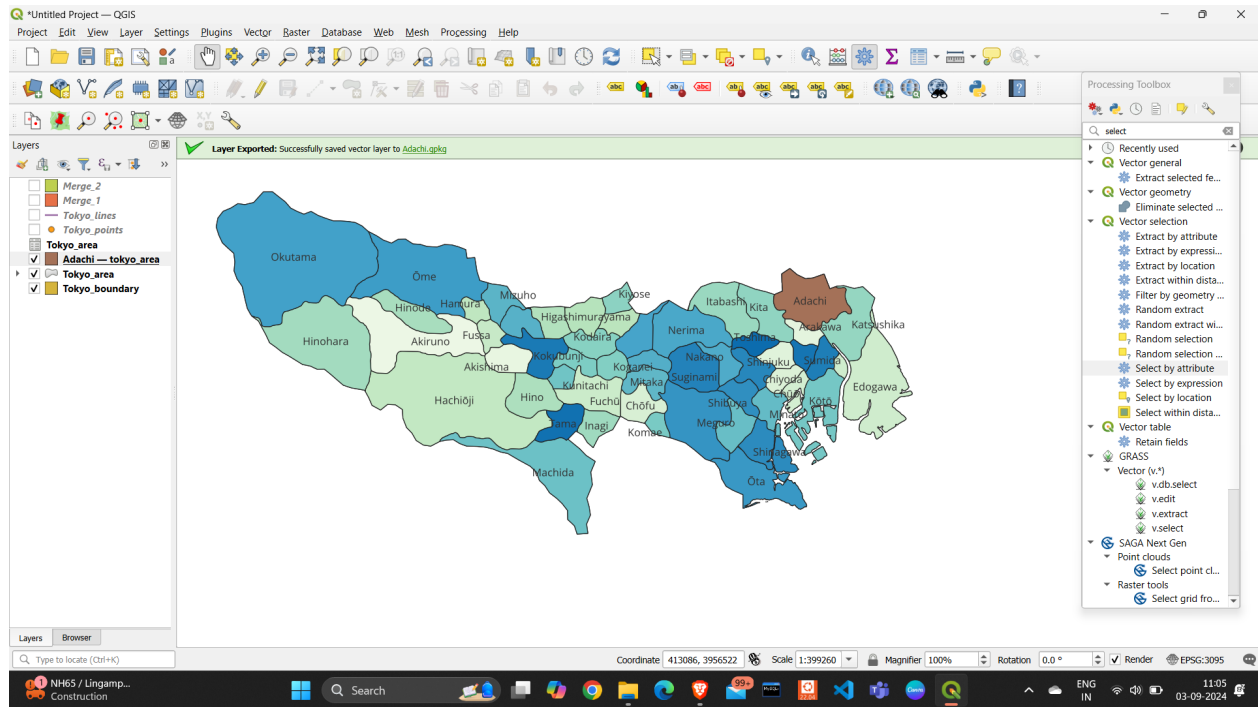
After we have classified and labelled, our shapefile for Tokyo looks like the following:



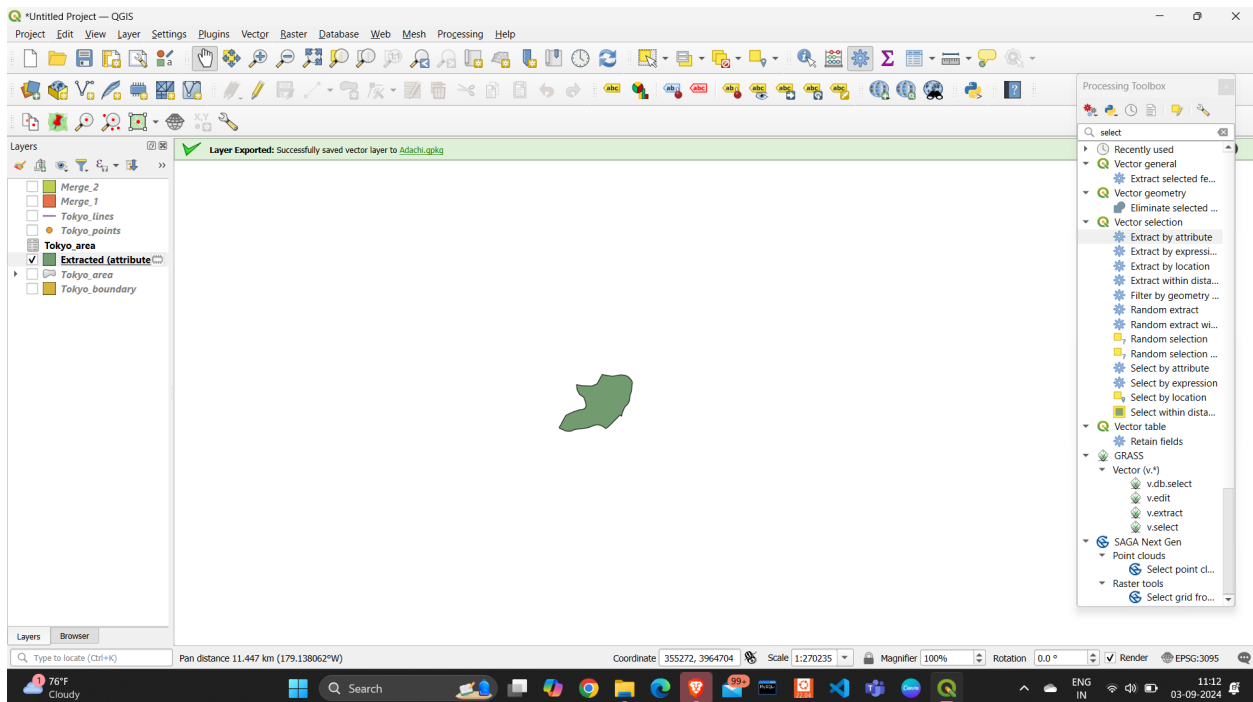
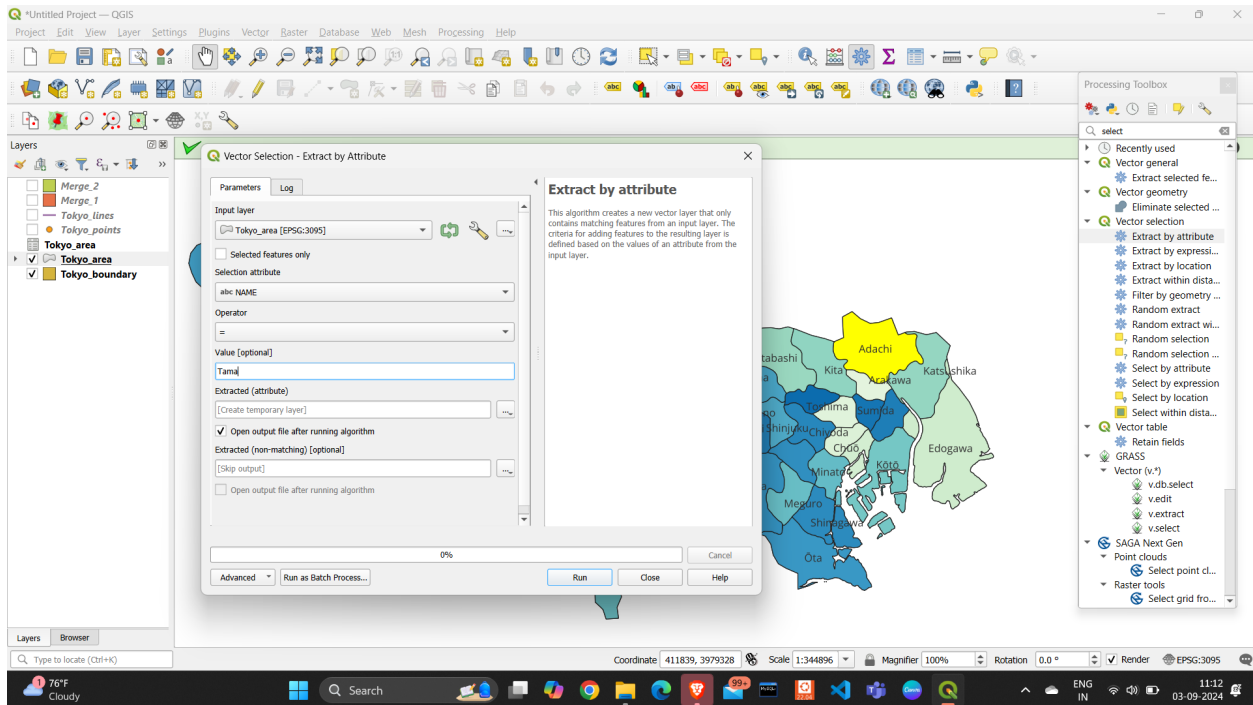
Go to processing→ toolbox→ choose 'select by attribute'→ selection attribute will be 'name' → choose value as your city of choice (case sensitive).→ i chose adachi→ Adachi is highlighted in yellow colour after we have done the selection



After selection, i can export/save this selected area separately (shown in brown colour):



## EXTRACT BY ATTRIBUTE



# MERGE

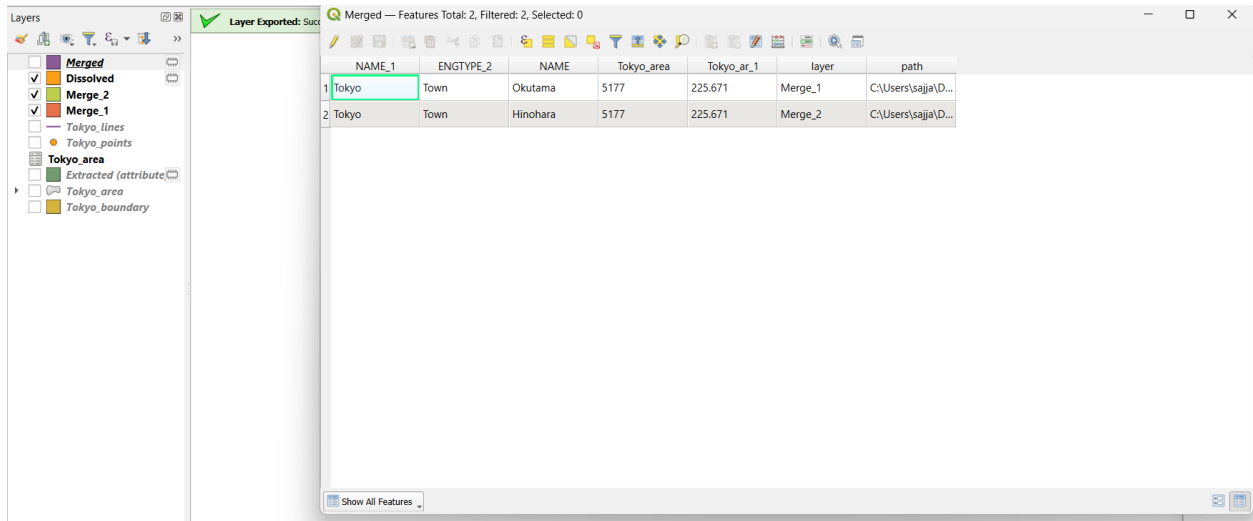
Go to processing→ toolbox→ merge vector layers→ choose merge1 and merge2 as input files→ run:





Attribute table before and after dissolve:

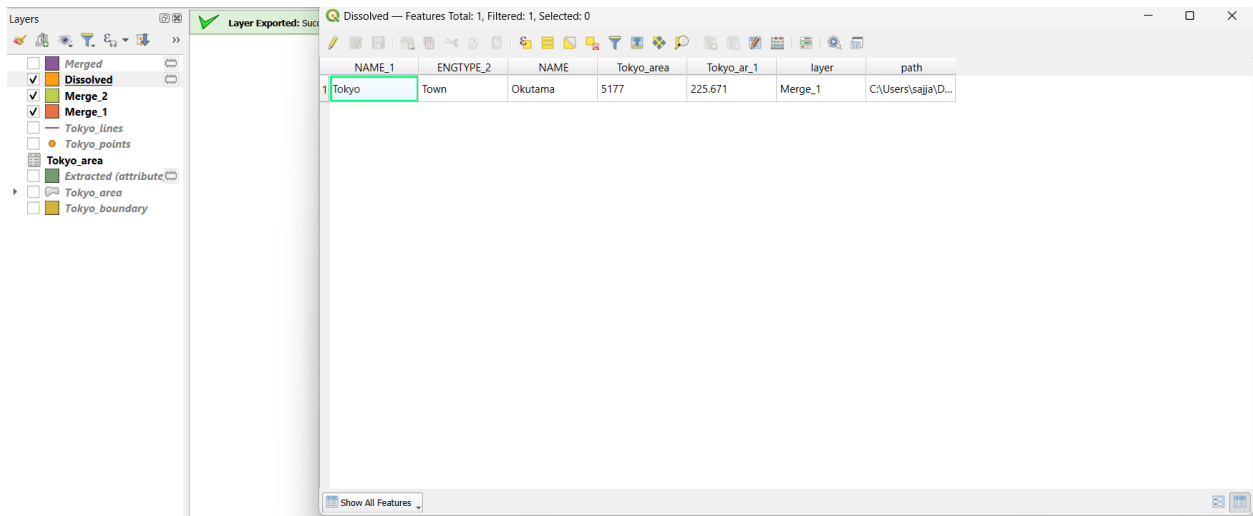
1. When we merged both the areas



The screenshot shows the QGIS interface with the 'Merged' layer selected in the Layers panel. The attribute table for the 'Merged' layer is displayed, showing two features. The first feature is highlighted with a green border.

	NAME_1	ENGTYPE_2	NAME	Tokyo_area	Tokyo_ar_1	layer	path
1	Tokyo	Town	Okutama	5177	225.671	Merge_1	C:\Users\sajjalD...
2	Tokyo	Town	Hinohara	5177	225.671	Merge_2	C:\Users\sajjalD...

2. On dissolving and creating one area



The screenshot shows the QGIS interface with the 'Dissolved' layer selected in the Layers panel. The attribute table for the 'Dissolved' layer is displayed, showing one feature. The first feature is highlighted with a green border.

	NAME_1	ENGTYPE_2	NAME	Tokyo_area	Tokyo_ar_1	layer	path
1	Tokyo	Town	Okutama	5177	225.671	Merge_1	C:\Users\sajjalD...