

Performing Table Joins

QGIS Tutorials and Tips



Author

Ujaval Gandhi

<http://google.com/+UjavalGandhi>

Translations by

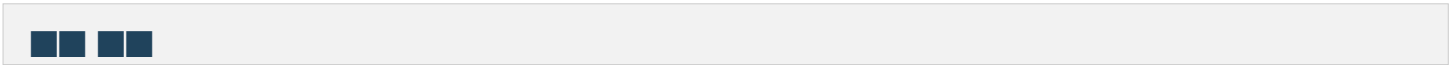
SongHyun Choi



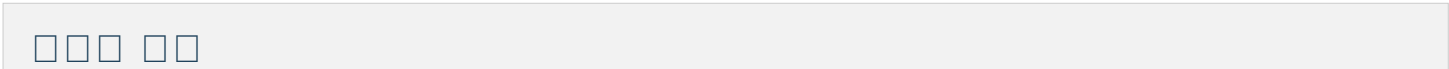
000000 00 00 000000 **shapefile** 00 000000 000000 00000. 00 00000 0000 00 00000000
 00 0000 0000 00 00 000000 0000 0000 00000. 0 0000 0000 00 `Table Join` 00 0000 00 0
 0000000 **QGIS** 00 0000 0000 0000 00000000.



US Census Bureau shapefile.



- CSVファイルは、テキスト形式でデータを保存する。 **.csv** 拡張子。
- QGISは、CSVファイルを読み込んで、地図上に表示する。



US Census Bureau MAF/TIGER shapefile

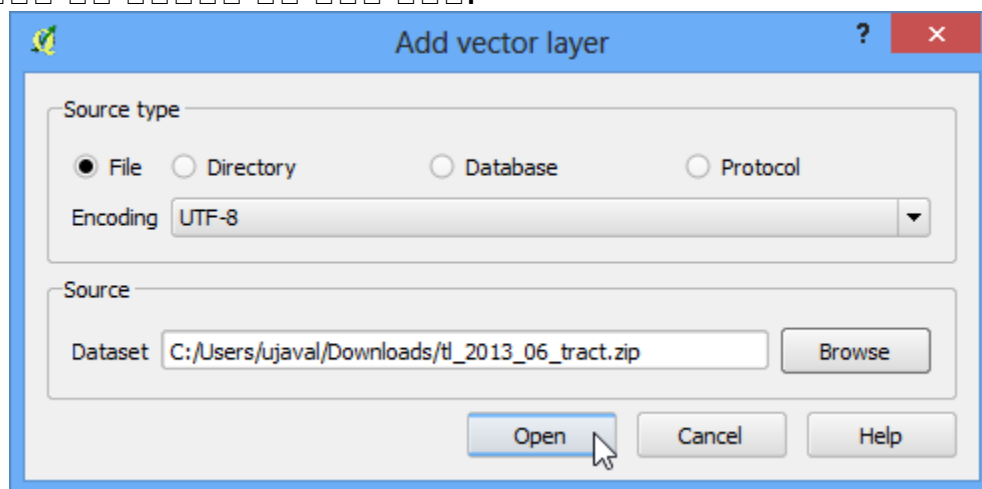
Americal FactFinder
 <<http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>>`_□
 □□□□ □□ □□□ □□□□□□. `Advanced Search` □ □□□ □ □□ □□□ CSV □ □□□ □□□□ □□
 □□ `Topic – Total Population` □ `Geographies – All Census Tracts in California` □ □□□ □
 □□□□. □ □□□□□ `Total Population 2010 Census Summary File 1` □ □□□□□.

□□□ □□ [TIGER] [USCENSUS]

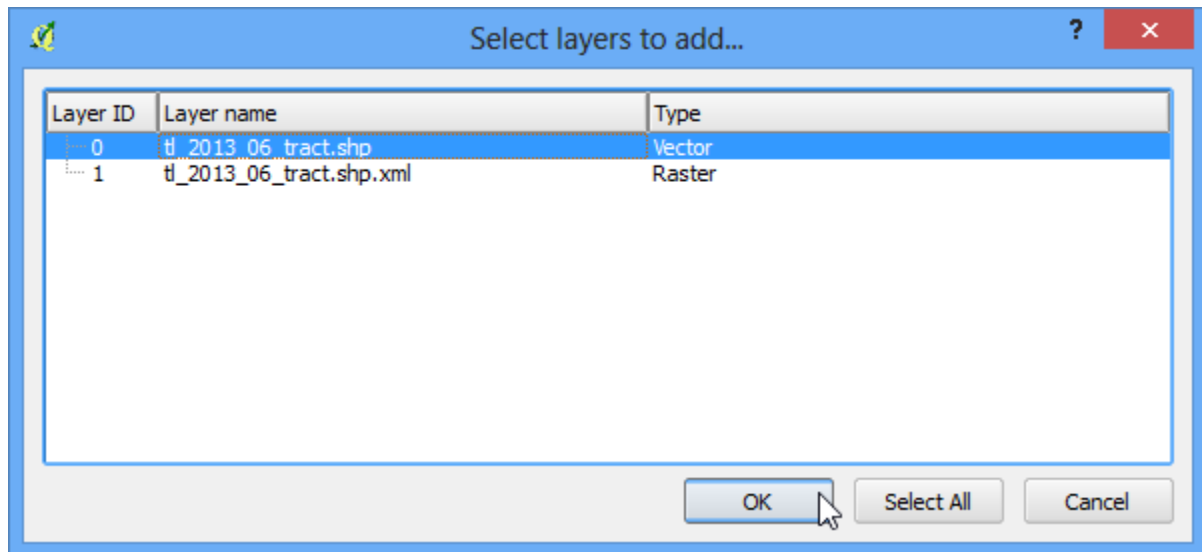
1. `shapefile` `-->` `:menuselection: Layer --> Add Vector Layer``



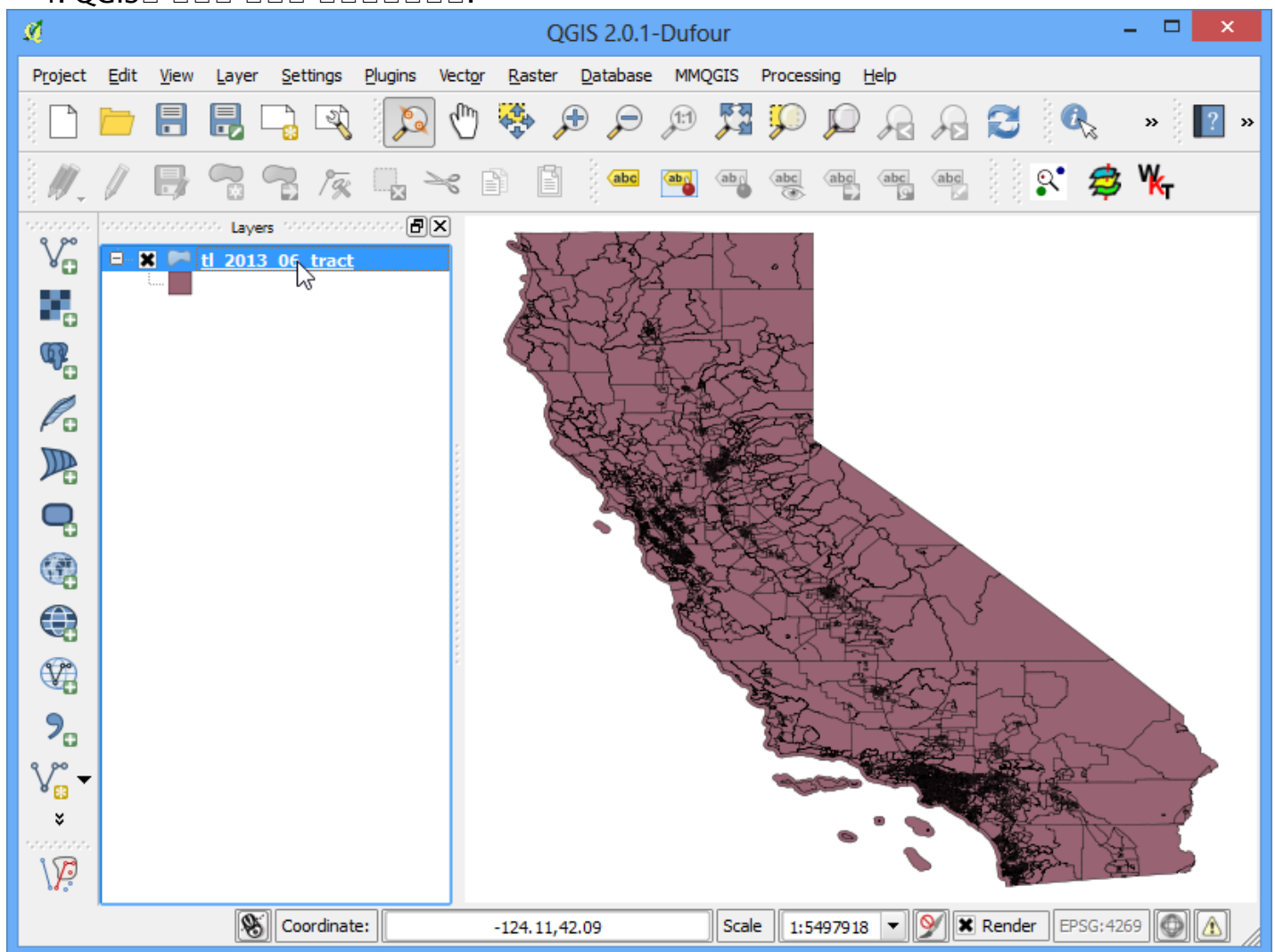
2. 파일을 불러와서 `tl_2013_06_tract.zip`을 불러옵니다. QGIS에 불러오면 zip 파일이 아니라 shapefile로 인식됩니다. 이 때 shapefile을 불러오기 위해 'Layer' 메뉴에서 'Add Vector Layer...'를 선택합니다.



3. `tl_2013_06_tract.shp` 파일을 불러옵니다. :guilabel: `OK` 버튼을 클릭합니다.



4. QGIS □ □ □ □ □ □ □ □ □ □.



5. □ □ □ □ □ □ □ □ □ □ □ □ □ □ :guilabel: `Open Attribute Table` □ □ □ □ □ □.



6. □□ shapefile□ □□□ □□□□□□. □ shapefile□ □□□□ □□□□ □□□□ □ □□□ □□□□ □□□□ □□□□□□. □ □□□□ ****GEOID****□□□□ □ □□□□ □□□□□□ □□ ID□ □□□□ □□ □□ □□□□ □ shapefile□ '□□' □ □ □□□□.



The screenshot shows a Notepad window with the file 'ca_tracts_pop.csv' open. The text is a CSV file containing census tract data for Alameda County, California. The first row is the header, and the subsequent rows list individual census tracts from 4001 to 4031. The 'GEO.id' and 'GEO.id2' columns are circled in red.

POPGROUP.id	POPGROUP.display-label	GEO.id	GEO.id2	GEO.display-label	D001
001	Total population	1400000US06001400100	06001400100	"Census Tract 4001, Alameda County, California"	2937
001	Total population	1400000US06001400200	06001400200	"Census Tract 4002, Alameda County, California"	1974
001	Total population	1400000US06001400300	06001400300	"Census Tract 4003, Alameda County, California"	4865
001	Total population	1400000US06001400400	06001400400	"Census Tract 4004, Alameda County, California"	3703
001	Total population	1400000US06001400500	06001400500	"Census Tract 4005, Alameda County, California"	3517
001	Total population	1400000US06001400600	06001400600	"Census Tract 4006, Alameda County, California"	1571
001	Total population	1400000US06001400700	06001400700	"Census Tract 4007, Alameda County, California"	4206
001	Total population	1400000US06001400800	06001400800	"Census Tract 4008, Alameda County, California"	3594
001	Total population	1400000US06001400900	06001400900	"Census Tract 4009, Alameda County, California"	2302
001	Total population	1400000US06001401000	06001401000	"Census Tract 4010, Alameda County, California"	5678
001	Total population	1400000US06001401100	06001401100	"Census Tract 4011, Alameda County, California"	4156
001	Total population	1400000US06001401200	06001401200	"Census Tract 4012, Alameda County, California"	2416
001	Total population	1400000US06001401300	06001401300	"Census Tract 4013, Alameda County, California"	3528
001	Total population	1400000US06001401400	06001401400	"Census Tract 4014, Alameda County, California"	4314
001	Total population	1400000US06001401500	06001401500	"Census Tract 4015, Alameda County, California"	2630
001	Total population	1400000US06001401600	06001401600	"Census Tract 4016, Alameda County, California"	2163
001	Total population	1400000US06001401700	06001401700	"Census Tract 4017, Alameda County, California"	2667
001	Total population	1400000US06001401800	06001401800	"Census Tract 4018, Alameda County, California"	1703
001	Total population	1400000US06001402200	06001402200	"Census Tract 4022, Alameda County, California"	2385
001	Total population	1400000US06001402400	06001402400	"Census Tract 4024, Alameda County, California"	2351
001	Total population	1400000US06001402500	06001402500	"Census Tract 4025, Alameda County, California"	1784
001	Total population	1400000US06001402600	06001402600	"Census Tract 4026, Alameda County, California"	1151
001	Total population	1400000US06001402700	06001402700	"Census Tract 4027, Alameda County, California"	1569
001	Total population	1400000US06001402800	06001402800	"Census Tract 4028, Alameda County, California"	3345
001	Total population	1400000US06001402900	06001402900	"Census Tract 4029, Alameda County, California"	1434
001	Total population	1400000US06001403000	06001403000	"Census Tract 4030, Alameda County, California"	2788
001	Total population	1400000US06001403100	06001403100	"Census Tract 4031, Alameda County, California"	2238

8. `00 0000 0000 csv000 00000 00 00000 0000. 000 0 00 00 000 String`
`(text)000 000. 0000 0000 00 D001'0000 0000 000000. 0000 00000 0000 0`
`0000 0000 0000 0000 0000 0000. QG/S000 0000 0000 000000'.csvt'00 0000 00`
`'00'0000 0000 0000. 0 0000 0 0000 0000 0000 0000 0000 0 00 0000. 0000 '.csv`
`0000 00 00 00000 '\ca_tracts_pop.csvt'\0 000000. 00 :download:'download the`
`csvt file from here. <../static/performing_table_joins/data/ca_tracts_pop.csvt>'00`
`00000 0 0 00000.`



9. In QGIS, open the CSV file and load it into the project. Then, go to Layer --> Add Delimited Text Layer and click OK.



10. CSV file format. File format: CSV (comma separated values). No geometry (attribute only table). OK.

Create a Layer from a Delimited Text File

File Name:

Layer name: Encoding:

File format: ☒ CSV (comma separated values) ☐ Custom delimiters ☐ Regular expression delimiter

Record options: Number of header lines to discard: ☒ First record has field names

Field options: ☐ Trim fields ☐ Discard empty fields ☐ Decimal separator is comma

Geometry definition: ☐ Point coordinates ☐ Well known text (WKT) ☒ No geometry (attribute only table)

Layer settings: ☐ Use spatial index ☐ Use subset index ☐ Watch file

	POPGROUP.id	POPGROUP.display-label	GEO.id	GEO.id2	GEO.display-label
1	001	Total population	1400000US06001400100	06001400100	Census Tract 4001, Alameda County
2	001	Total population	1400000US06001400200	06001400200	Census Tract 4002, Alameda County
3	001	Total population	1400000US06001400300	06001400300	Census Tract 4003, Alameda County
4	001	Total population	1400000US06001400400	06001400400	Census Tract 4004, Alameda County
5	001	Total population	1400000US06001400500	06001400500	Census Tract 4005, Alameda County

11. CSV is QGIS's preferred format.



12. Select the ***tl_2013_06_tract*** layer. Right-click on it and select Properties.



13. Click on Layer Properties and then Joins tab. Click on the + button to add a new join.



14. Add vector join Join layer` `ca_tracts_pop`
 shapefile CSV id Join field` `Target field` `GEO.id2` `GEOID`
 :guilabel:`OK`



15. Layer Properties QGIS CSV shapefile
 `tl_2013_06_tract` Open
 Attribute Table`



16. □□ ca_tracts_pop_D001 □□□ □ □□□ □□□ □□□ □ □ □□□□. □□ CSV□□□□□ □ □□□ □□□□ □□□□□. □□ □□□□ □□ QGIS□ □□□□□.

Attribute table - tl_2013_06_tract :: Features total: 8057, filtered: 8057, selected: 0

	INTPTLAT	INTPTLON	tracts_pop_POPGRC	op_POPGROURdi	tracts_pop_GEC	pop_GEQdis	ca_tracts_pop_D001
0	+37.5371514	-122.0081094	001	Total population	1400000US06...	Census Tra...	2873
1	+37.5293619	-121.9931002	001	Total population	1400000US06...	Census Tra...	2816
2	+34.0175004	-118.1974975	001	Total population	1400000US06...	Census Tra...	2598
3	+34.0245059	-118.2142985	001	Total population	1400000US06...	Census Tra...	3766
4	+34.0187546	-118.2117956	001	Total population	1400000US06...	Census Tra...	3618
5	+34.0682177	-118.2320356	001	Total population	1400000US06...	Census Tra...	3127
6	+34.0571230	-118.2311021	001	Total population	1400000US06...	Census Tra...	7883
7	+34.0299036	-118.2244531	001	Total population	1400000US06...	Census Tra...	2146
8	+34.0561941	-118.2466502	001	Total population	1400000US06...	Census Tra...	1363
9	+37.5184093	-121.9748369	001	Total population	1400000US06...	Census Tra...	7194
10	+34.0798577	-118.3181008	001	Total population	1400000US06...	Census Tra...	3628
11	+34.0798690	-118.3068568	001	Total population	1400000US06...	Census Tra...	3670
12	+34.0799255	-118.3024972	001	Total population	1400000US06...	Census Tra...	5067
13	+34.0813650	-118.2961539	001	Total population	1400000US06...	Census Tra...	4389
14	+34.0800134	-118.2881064	001	Total population	1400000US06...	Census Tra...	3513
15	+34.0781753	-118.3695958	001	Total population	1400000US06...	Census Tra...	2037
16	+34.1022274	-118.2669741	001	Total population	1400000US06...	Census Tra...	4717
17	+34.0992506	-118.2836893	001	Total population	1400000US06...	Census Tra...	3203
18	+37.5184218	-121.9515237	001	Total population	1400000US06...	Census Tra...	2917
19	+37.5168344	-121.9605916	001	Total population	1400000US06...	Census Tra...	5918
20	+37.5071943	-121.9271475	001	Total population	1400000US06...	Census Tra...	4611
21	+37.4707325	-121.9129556	001	Total population	1400000US06...	Census Tra...	4074

Show All Features

17. `tl_2013_06_tract` :guilabel: `Properties` .



18. Click Style in the Layer Properties dialog. The Style dialog box appears. :guilabel: `Graduated` is selected. :guilabel: `Column` is set to :guilabel: `ca_tracts_pop_D001`. :guilabel: `Color ramp` is set to :guilabel: `Mode` and :guilabel: `Quantile (Equal Count)`. :guilabel: `Classify` is checked. :guilabel: `OK` is clicked.



19. `guiLabel: 'Zoom in'`



20. The map shows the population density of California by tract. The map is a choropleth map, where the color of the tracts represents the population density. The map is a vector map, where the tracts are represented by lines and the population density is represented by the color of the tracts. The map is a vector map, where the tracts are represented by lines and the population density is represented by the color of the tracts.

