## Performing Table Joins

## QGIS Tutorials and Tips



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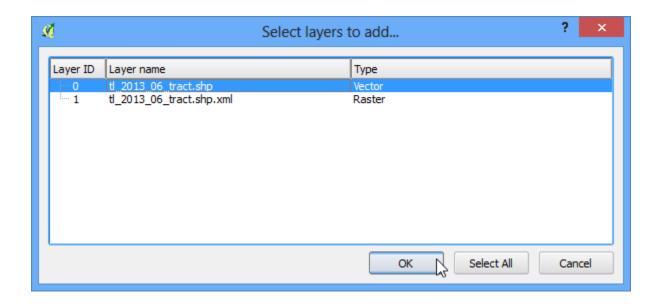
00000 00 00 00000 shapefile 00 00000 00000 0000. 00 0000 000 00 00000 000
000000 00000 000 00 00000 US Census Bureau000 00000 00 000000 000 shapefile
<ul> <li>CSV</li> <li>QGIS</li> </ul>
US Census Bureau has various spatial extracts from the MAF/TIGER database. You can query and download census tracts shapefile for California. Download Census Tracts for California file.
`Americal FactFinder

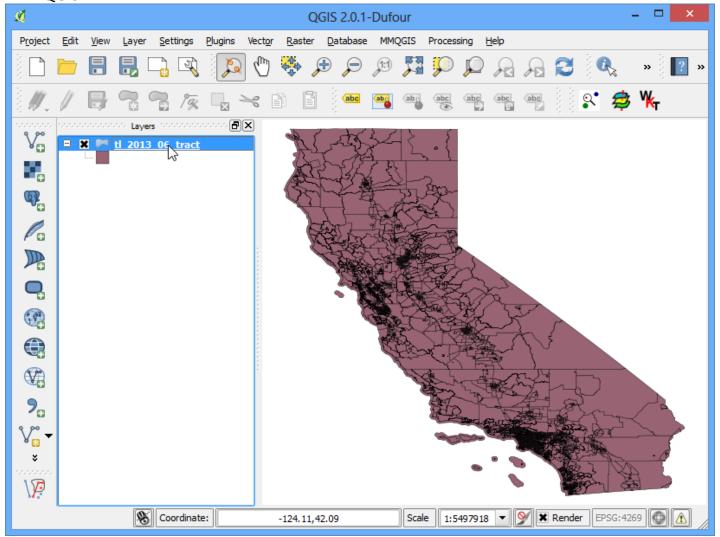


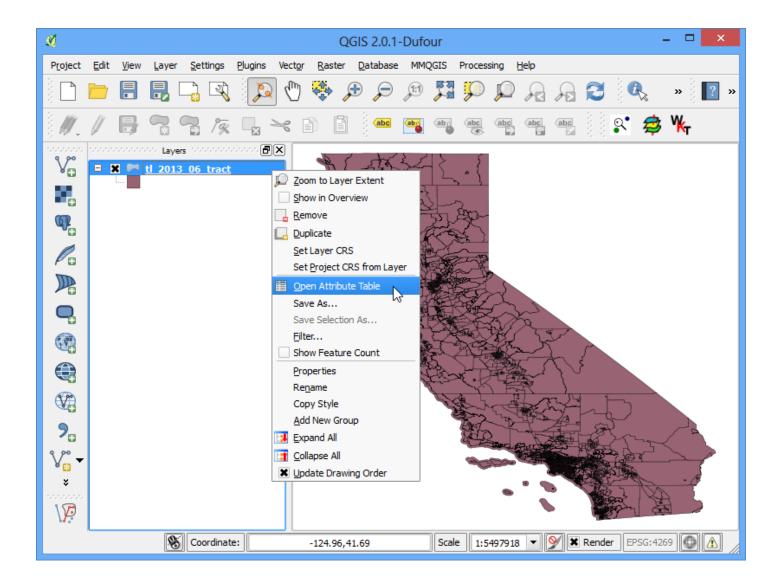
2. Browse to the downloaded zip file £1\_2013\_06\_tract.zip and select it. QGIS can open zip files directly so no need to uncompress it first.



3. Select the t1\_2013\_06\_tract.shp layer and click OK.





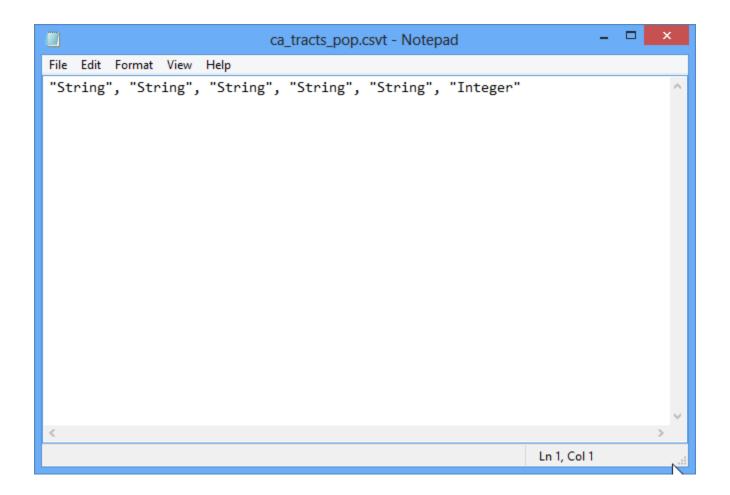


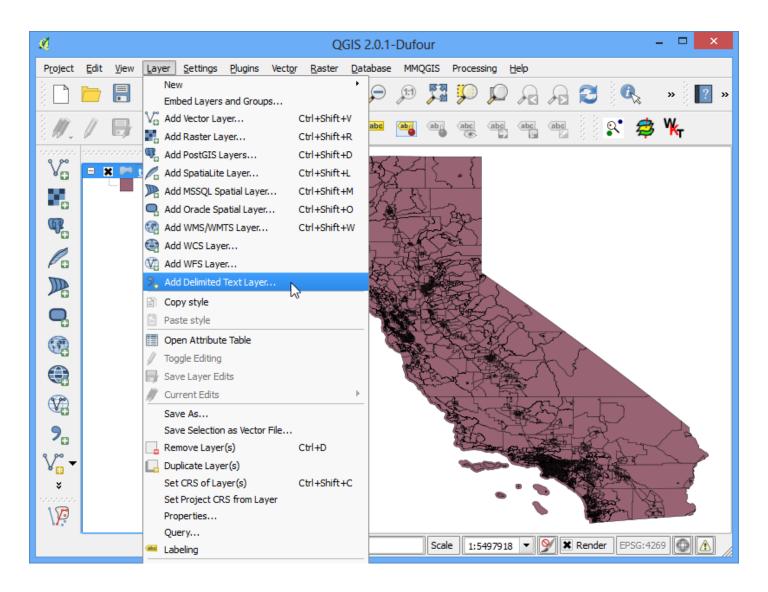


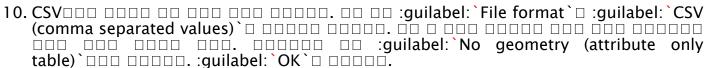
7. Open the CSV file <code>ca\_tracts\_pop.csv</code> in a text editor. You will notice that each row of the file contains information about a tract along with the unique identifier we saw in the previous step. Note that this field is called GEO.id2 in the CSV. You will also note that the D001 column has population value for each of the census tract.

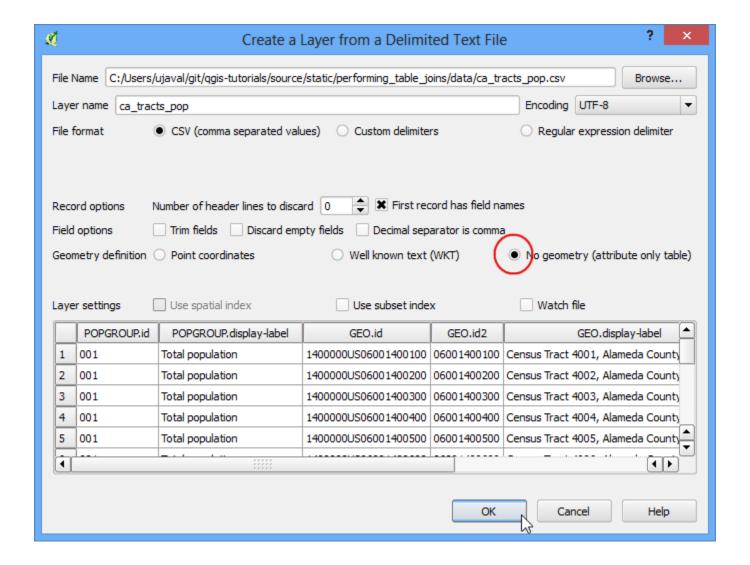


8. We could import this csv file without any further action and it would be imported. But, the default type of each column would be a String (text). That is ok except for the **D001** field which contains numbers for the population. Having those imported as text would not allow us to run any mathematical operations on this column. To tell QGIS to import the field as a number, we need to create a **sidecar** file with a **.csvt** extension. This file will have only 1 row specifying data types for each column. Save this file as **ca\_tracts\_pop.csvt** in the same directory as the original **.csv** file. You can also download the csvt file from here.



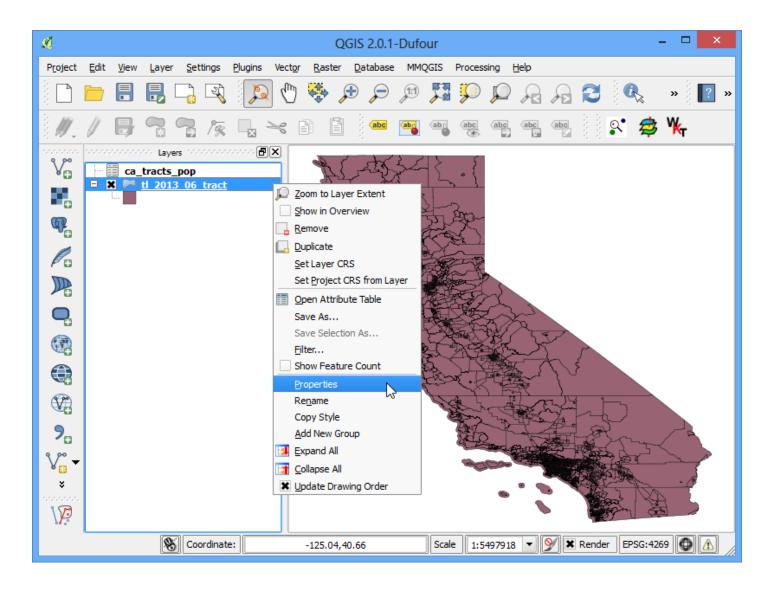








12. Select the t1\_2013\_06\_tract layer. Right-click on it and select Properties.



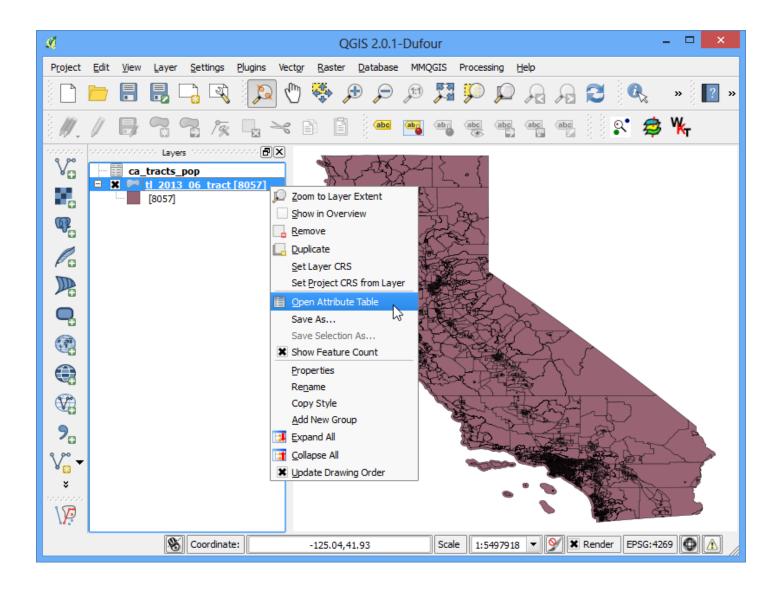
13. 000 00 Layer Properties 000000 00 Joins 00 00000. 000 00 000 000 000



14. In the Add vector join dialog, select <code>ca\_tracts\_pop</code> as the Join layer. Next we have to select the field with unique ids in both the shapefile and the CSV. Select <code>GEO.id2</code> and <code>GEOID</code> as the Join field and Target field respectively. Click OK.



15. Close the Layer Properties dialog and return to the main QGIS window. At this point, the fields from the CSV file are joined with the shapefile. Right-click on the t1\_2013\_06\_tract layer and select Open Attribute Table.





17. Right-click the t1\_2013\_06\_tract layer and select Properties.

