

Map Area:

Quincy, Massachusetts, United States

<https://www.openstreetmap.org/export#map=12/42.2623/-71.0159>

The reason that I chose this place is that I've always admired the founding fathers like Washington, Adams, Jefferson, and especially Jefferson. Seeing that there is no chance that I can get a dataset representing Monticello, instead I chose Quincy, the birthplace of the Adamses.

Problems encountered in the map

1. Invalid tag type and value

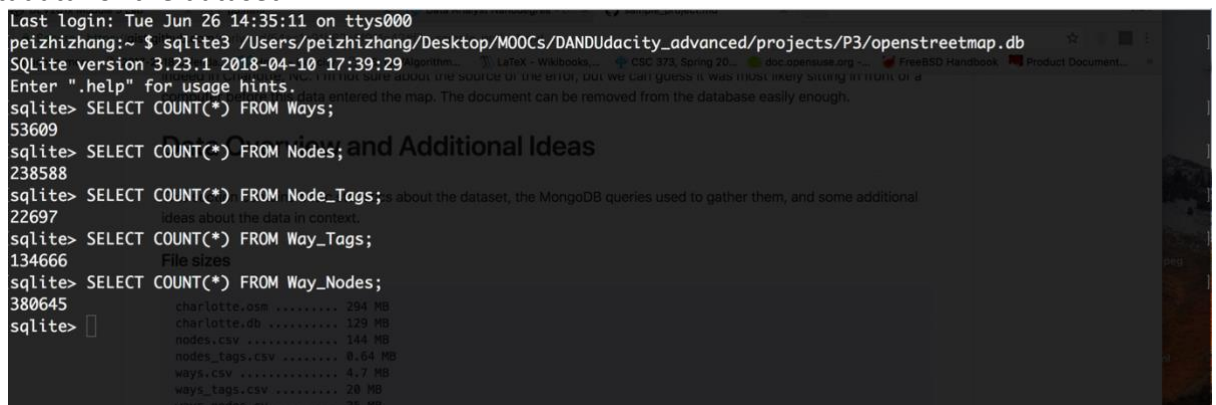
As further query shows, there are multiple tags with unmeaningful types and values, like for example, there is a tag with type 'noref' and value '4'. Without any gold standard data, there is no appropriate method to remedy this problem

Overview

1. Running ls -al on the files

```
drwxr-xr-x 18 peizhizhang staff 576 Jun 26 16:53 .
drwxr-xr-x 12 peizhizhang staff 384 Jun 12 17:58 ..
-rw-r--r--@ 1 peizhizhang staff 6148 Jun 25 16:27 .DS_Store
drwxr-xr-x 7 peizhizhang staff 224 Jun 25 22:23 .idea
-rw-r--r-- 1 peizhizhang staff 0 Jun 12 15:52 README.md
drwxr-xr-x 3 peizhizhang staff 96 Jun 22 18:17 __pycache__
-rw-r--r--@ 1 peizhizhang staff 64174633 Jun 21 15:38 data.osm
-rw-r--r-- 1 peizhizhang staff 6301 Jun 24 15:10 data.py
-rw-r--r-- 1 peizhizhang staff 0 Jun 26 16:53 file_sizes.txt
-rw-r--r--@ 1 peizhizhang staff 20156519 Jun 24 15:41 nodes.csv
-rw-r--r--@ 1 peizhizhang staff 879470 Jun 24 15:41 nodes_tags.csv
-rw-r--r-- 1 peizhizhang staff 33996800 Jun 24 20:51 openstreetmap.db
-rw-r--r--@ 1 peizhizhang staff 12149 Jun 25 22:30 p3.docx
-rw-r--r-- 1 peizhizhang staff 2313 Jun 22 16:54 schema.py
-rw-r--r--@ 1 peizhizhang staff 3254491 Jun 24 15:41 ways.csv
-rw-r--r--@ 1 peizhizhang staff 9101978 Jun 24 15:41 ways_nodes.csv
-rw-r--r-- 1 peizhizhang staff 4552938 Jun 24 15:41 ways_tags.csv
-rw-r--r--@ 1 peizhizhang staff 162 Jun 26 14:27 ~$p3.docx
```

2. metadata for the dataset



```
Last login: Tue Jun 26 14:35:11 on ttys000
peizhizhang:~ $ sqlite3 /Users/peizhizhang/Desktop/MOOCs/DANDUdacity_advanced/projects/P3/openstreetmap.db
SQLite version 3.23.1 2018-04-10 17:39:29
Enter ".help" for usage hints.
sqlite> SELECT COUNT(*) FROM Ways;
53609
sqlite> SELECT COUNT(*) FROM Nodes;
238588
sqlite> SELECT COUNT(*) FROM Node_Tags;
22697
sqlite> SELECT COUNT(*) FROM Way_Tags;
134666
sqlite> SELECT COUNT(*) FROM Way_Nodes;
380645
sqlite>
File sizes
charlotte.osm ..... 294 MB
charlotte.db ..... 129 MB
nodes.csv ..... 144 MB
nodes_tags.csv ..... 8.64 MB
ways.csv ..... 4.7 MB
ways_tags.csv ..... 28 MB
ways_nodes.csv ..... 35 MB
```

Top 10 contributing users

```

WesWeaver|114356
eugenebata|46990
peace2|7532
dchiles|6345
woodpeck_fixbot|4746
chrmur|4268
Ann_Khroshun|4121
choess|3370
dankpoet|2874
MSoslow|2848
sqlite> SELECT SUM(count) as sum FROM (SELECT user, COUNT(*) as count FROM Nodes GROUP BY user ORDER BY count DESC LIMIT 10)
sub;
197450
sqlite> SELECT COUNT(*) FROM Nodes;
238588

```

Additional Ideas

1. More detailed info about the data may be required, like for restaurant nodes, land area of the restaurants can be vital.
2. After careful data exploration, I find that top ten contributing users make up about 82.8% of the dataset. Thus I suggest that some inciting measure must be undertaken in order for more users to contribute.