Assignment 4: Data Wrangling

In this assignment you will be using the open street map data about Milwaukee city to investigate and correct zip codes.

Stage 1: use the provided osm file to investigate the zip code values and catch any errors, inconsistency, or missing values in the zip codes values.

You should get a list similar to this:

```
{'53005-5918',
 '531351',
 '53202-1510',
 '53202-1552',
 '53202-1614',
 '53202-1615',
 '53202-1618',
 '53202-1697',
 '53202-2001',
 '53202-2018',
 '53202-2330',
 '53203-3099',
 '53205-0740',
 '53205-2236',
 '53212-3839',
 '53212-3942',
 '53212-3951',
 '53212-4099',
 '53214-3110',
 '53217-1628',
 '53217-2030',
 '53217-2338',
 '53217-2339',
 '53217-5399',
 '53220-4320',
 'Milwaukee WI, 53222',
 'WI',
 'WI - 53051',
 'WI - 53222',
 'WI - 53226'}
```

Stage 2: convert all the zip code values to 5-digit format, ex: 53212. The output should like the following results:

```
Milwaukee WI, 53222 ==> 53222
53202-1615 ==> 53202
53202-2330 ==> 53202
53217-5399 ==> 53217
53005-5918 ==> 53005
53220-4320 ==> 53220
53212-3942 ==> 53212
53212-3951 ==> 53212
WI - 53051 ==> 53051
WI - 53051 ==> 53051
WI - 53051 ==> 53051
WI - 53051 ==> 53051
WI - 53222 ==> 53222
WI - 53226 ==> 53226
WI - 53226 ==> 53226
WI - 53226 ==> 53226
WI - 53226 ==> 53226
WI - 53226 ==> 53226
WI - 53226 ==> 53226
53217-1628 ==> 53217
53217-2030 ==> 53217
53205-0740 ==> 53205
WI - 53226 ==> 53226
53202-1552 ==> 53202
WI ==> Original zip code is missing ..... Need to be fixed manually
53202-1614 ==> 53202
53212-4099 ==> 53212
53202-2001 ==> 53202
53212-3839 ==> 53212
53212-3839 ==> 53212
53205-2236 ==> 53205
53202-1510 ==> 53202
53202-2018 ==> 53202
53212-3951 ==> 53212
531351 ==> Can't fix zip code ..... Need to be fixed manually
53202-1618 ==> 53202
53217-2339 ==> 53217
53217-2338 ==> 53217
53214-3110 ==> 53214
53203-3099 ==> 53203
```

Your solution should catch the problematic zip codes (see the first list) and provide the needed fix (see the second list).

Please submit your solution as a Jupyter Notebook (ipynb file)