

Coursera Capstone: IBM Data Science Professional Certificate.

Project - Where should I Move?

Author: Preet Mishra

Data Section

Following sources of data are used in the Project:

- **Data title:**

List of postal codes of Canada: M

Type of data:

HTML.


Description of the dataset:

This is a list of postal codes in Canada where the first letter is M. Postal codes beginning with M are located within the city of Toronto in the province of Ontario. Only the first three characters are listed, corresponding to the Forward Sortation Area.

A python script was developed to harness the data and use it in the project.

Source:

https://en.wikipedia.org/wiki/List_of_postal_codes_of_Canada:_M



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List of postal codes of Canada: M

From Wikipedia, the free encyclopedia

This is a list of [postal codes in Canada](#) where the first letter is M. Postal codes beginning with M are located within corresponding to the Forward Sortation Area.

[Canada Post](#) provides a free postal code look-up tool on its website,^[1] via its [applications](#) for such [smartphones](#) as: also sell validation tools, which allow customers to properly match addresses and postal codes. Hard-copy directo

[Toronto - FSAs](#) [\[edit \]](#)

Note: There are no rural FSAs in Toronto, hence no postal codes start with M0.

Postcode ↕	Borough ↕	Neighbourhood ↕
M1A	Not assigned	Not assigned
M2A	Not assigned	Not assigned
M3A	North York	Parkwoods
M4A	North York	Victoria Village

- **Data title:**

Toronto Neighborhood coordinates

Type of data:

CSV.

Description of the dataset:

It contains the coordinates of the neighbourhoods in Toronto which is used to make the API calls to Foursquare.

Source:

http://cocl.us/Geospatial_data

Now that we have our dataframe intact. Let's add their longitude and latitude from a csv file.

```
In [12]: geo_data = pd.read_csv('http://cocl.us/Geospatial_data')
         geo_data.head()
```

```
Out[12]:
```

	Postal Code	Latitude	Longitude
0	M1B	43.806686	-79.194353
1	M1C	43.784535	-79.160497
2	M1E	43.763573	-79.188711
3	M1G	43.770992	-79.216917
4	M1H	43.773136	-79.239476

- **Data title:**

Foursquare's Location data

Type of data:

JSON.

Description of the dataset:

Foursquare provides the details about particular location including the places one can explore, venues, tips and photos.

We have used Foursquare's API to get the venues and their category available in a particular neighbourhood.

Source:

<http://foursquare.com/>

Getting the venues

```
In [35]: toronto_venues = getNearbyVenues(names=df['Neighbourhood'],
                                         latitudes=df['Latitude'],
                                         longitudes=df['Longitude'])
```

```
In [38]: print(toronto_venues.shape)
         toronto_venues.head()
```

(2235, 7)

```
Out[38]:
```

	Neighbourhood	Neighbourhood Latitude	Neighbourhood Longitude	Venue	Venue Latitude	Venue Longitude	Venue Category
0	Rouge, Malvern	43.806686	-79.194353	Wendy's	43.807448	-79.199056	Fast Food Restaurant
1	Highland Creek, Rouge Hill, Port Union	43.784535	-79.160497	Royal Canadian Legion	43.782533	-79.163085	Bar
2	Guildwood, Morningside, West Hill	43.763573	-79.188711	Swiss Chalet Rotisserie & Grill	43.767697	-79.189914	Pizza Place
3	Guildwood, Morningside, West Hill	43.763573	-79.188711	G & G Electronics	43.765309	-79.191537	Electronics Store
4	Guildwood, Morningside, West Hill	43.763573	-79.188711	Marina Spa	43.766000	-79.191000	Spa

Using
Foursquare's
API