*\*All data files will be located at ../data/*

1. **Data preprocessing & Generation**

**Data preprocessing code:**

* data\_processing.ipynb

**Imported Data files:**

* toronto\_reviews.csv
* businesses\_final\_toronto.csv

**Cleaned exported data files:**

* Cleaned\_Toronto\_Reviews.json
* Cleaned\_Toronto\_Business.json

1. **Project data generation (for Recommender System)**

*Run following code for data files generation:*

*python projectData\_generation.py –data\_dir ../data/ --data\_name Cleaned\_Toronto\_Reviews.json*

*Current application for the recommender system setting is item-based to make user-item preference predictions. The code currently leverages item-keyword information stored in vector space using TF-IDF to compute item-item similarities matrix. Therefore, the current item similarity matrix is generated by using the item-keyword matrix.*

**Data file generations code:**

* projectData\_generation.py

**Imported data files:**

* Cleaned\_Toronto\_Reviews.json

**Generated data files:**

* Dictionaries that maps item id to their attributes:
  + icDictionary.json
  + ipDictionary.json
  + isDictionary.json
* Dictionaries that maps items id to their distance to each intersection:
  + idDictionary\_yongefinch.json
  + idDictionary\_bloorbathurst.json
  + idDictionary\_spadinadundas.json
  + idDictionary\_queenspadina.json
  + idDictionary\_blooryonge.json
  + idDictionary\_dundasyonge.json
* Other relevant matrices
  + rtrain.npz
  + icmatrix.npz
  + IKbased\_II\_similarity.npy
  + UI\_prediction\_matrix.npy

1. **Explanation generation**

**Data preprocessing code:**

* data\_processing.ipynb

**Imported data files:**

* Export\_TorontoData.json

**Exported explanation data file:**

* Toronto\_explanation.json

1. **Conversational Recommender System API**

**API code:**

* convSys\_API.ipynb

**Imported Data files:**

* Toronto\_explanation.json