# CAB RIDE SHARING IN NEW YORK CITY

To run the code locally, please follow these steps:

- Below are the steps to run the source code to perform more trials and conduct simulations for all the algorithms: The steps to use this API is :
- Download the Java based implementation from the following link:https://github.com/graphhopper/graphhopper/blob/0.6/docs/web/quickstart.md

Follow the instructions in this link and use the New York based OSM instead of the default instructions used in the Graphhopper Page.

- The New York OSM file can be obtained from : http://download.geofabrik.de/north-america/us/new-york.html

Change the configurations:

- Need to change the configuration file to enable walking based calculations to the calculations:
- Navigate to config-example.properties file in Graphhopper folder and change : graph.flagEncoders=car , add foot to this statement.

- Start GraphHopper by using this command in Command Prompt or teminal: java -jar *.jar jetty.resourcebase=webapp config=config-example.properties osmreader.osm=new-york-latest.osm

- Please note that Graphhopper must be running all the time while algorithm is running.

- Download PostgreSQL with GIS and SQLite. Additionally, download SQLite Browser. Set up a username and password in PostgreSQL.

- Import taxishare_post.sql file in PostgreSQL and taxi_data.db file in SQLite. The database related dumps are available from https://drive.google.com/open?id=0BworjGnztGcSR1pUdkV0cTRfSlk.

- Import the downloaded files from Google Drive and uncompress them.Import them into Postgres and SQLite having corresponding names as their file names

- Open the Source folder in any Python IDE configured to Python 3.4.

- The entry point to the algorithm is at the file- **getpandas.py** and the method import_dataframes(pool_size) needs to be executed.
- Change the path of the sql file located and also username and password of PostgreSQL database in postgres_conn.py file.
- Similarly, change the path of the db file located in sqlite_import.py file.
- In getPandas.py file, in Line 17 change the month you would like to run the experiment for, Eg: For Jan (1,2) , Jan to April (1,5). Change the parameter for pool size in line - 146. eg.(5,10,15,20 poolsizes)