Data Collection:

1. New York crime data from https://data.cityofnewyork.us/Public-Safety/NYPD-Complaint-Data-Current-Year-To-Date-/5uac-w243
   This dataset includes all valid felony, misdemeanor, and violation crimes reported to the New York City Police Department (NYPD) for all complete quarters from 2016 to 2019. This data set consists data about neighbourhood name, crime, date ,place and location details. From this data we can able to extract the no. of crimes in each neighbourhood and stats about crimes etc..

2. Foursquare api for extacting neighbourhoods and venues details.
   The collected data consists of NYC venues with compact metadata like id, name, location, checkins count (total checkins ever done in that venue), users count (total users who have ever checked in), tip count (total number of tips written by users), associated categories, menu, etc. The Foursquare categories span a broad ontology, with the following 10 categories on the first level: (1) Arts and Entertainment, (2) College and University, (3) Event, (4) Food, (5) Nightlife Spot, (6) Outdoors and Recreation, (7) Professional and Other Places, (8) Residence, (9) Shop and Service, (10) Travel and Transport.
3. We can consider Population of the each neighbourhood city (Optional if requires can consider).

Analytical Approach:

Unsupervised learning to find patterns of crimes in New York city and its neighbourhood places : K-means clustering will be used to compare crimes