**Objective:**

This project aims at finding a suitable location for setting up a Warehouse for vegetables vendor.

The recommended location should be able to enable easy and faster supply of vegetables to the customers. Also should aim at a place where vegetable consumption is high so that gets good revenue.

**Business Problem:**

For a vegetable vendor the place where he starts the warehouse should be near to the locations he need to supply and should be able to reach without hassles. Also the requirement for vegetables in that area should be high.

Therefore to solve the current problem, we need to find a location where

* No. of restaurants are more
* No. of supermarkets are more
* Population is more

There are other factors which the current problem may depend on such as rent, traffic conditions, area type etc. There factors are currently out of scope for this project due to unavailability of such data.

We consider New York city in this project to find a suitable location for a vegetable vendor to setup warehouse for his business expansion.

**Data:**

To resolve the aforesaid problem, the basic data we need is the latitude and longitude of each area in NewYork city. I refer each location based on zip code of each area in New York. I get this data from

<https://gist.github.com/erichurst/7882666/>

Once we get the latitude and longitude, we need to find top 10 nearby places for each area.

I get this by clustering top venue for each of the areas in New York.

I use FourSquare api to get the nearby places <API: getNearbyVenues()

Another important factor we consider is the population in that area. I get the population data from

<https://www.zip-codes.com/city/ny-new-york.asp>

Sample Data:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ZIP Code** | **Type** | **County** | **Population** | **Area Code(s)** |
| [ZIP Code 10001](https://www.zip-codes.com/zip-code/10001/zip-code-10001.asp) | Standard | [New York](https://www.zip-codes.com/county/ny-new-york.asp) | 21,102 | [646](https://www.zip-codes.com/area-code/area-code-646.asp) / [718](https://www.zip-codes.com/area-code/area-code-718.asp) / [917](https://www.zip-codes.com/area-code/area-code-917.asp) |
| [ZIP Code 10002](https://www.zip-codes.com/zip-code/10002/zip-code-10002.asp) | Standard | [New York](https://www.zip-codes.com/county/ny-new-york.asp) | 81,410 | [718](https://www.zip-codes.com/area-code/area-code-718.asp) |
| [ZIP Code 10003](https://www.zip-codes.com/zip-code/10003/zip-code-10003.asp) | Standard | [New York](https://www.zip-codes.com/county/ny-new-york.asp) | 56,024 | [212](https://www.zip-codes.com/area-code/area-code-212.asp) / [646](https://www.zip-codes.com/area-code/area-code-646.asp) / [347](https://www.zip-codes.com/area-code/area-code-347.asp) / [917](https://www.zip-codes.com/area-code/area-code-917.asp) / [718](https://www.zip-codes.com/area-code/area-code-718.asp) |

Based on above data, I find the top 3 areas in which population, restaurants and supermarkets are more to setup a vegetable warehouse.

This concludes my data section.