Searching for PIZZA in foreign cities

Part of Battle of the Neighborhood

Coursera Capstone project

Introduction:

Suppose you have never been to the Pakistan and you need to have just pizza while you are there.

So, you need to go to a spot with a high thickness of Pizza puts around you.

The issue we intend to fathom is to examine the Pizza stores' areas in the significant city/urban areas and locate the best spot for our visitor so he can have a decent pizza he craves for.

Our fundamental objective are voyagers with a sample of western-style pizza

Data Section:

- I will utilize the Four-Square Programming interface to gather information about areas of Pizza stores in 5 significant Pakistan city/urban areas which are:
- Islamabad,
- Karachi,
- Lahore,
- Peshawar,
- Quetta.
- These are one of the most populated Pakistan cities and Islamabad is the capital of Pakistan as well as other cities are capital of their respected provinces and I am confident that they will contain the best Pizza in the Pakistan.

Method:

- My principle focus here is to asses which city would have the most noteworthy Pizza store density. I utilized the Four-Square Programming interface through the venues channel. I utilized the close to question to get venues in the urban communities. Additionally, I utilize the CategoryID to set it to show just Pizza Spots. An example of my query:
- https://api.foursquare.com/v2/venues/explore?&client_id=&client_secret=&v=20180605&Karachi, Pakistan&limit=100&categoryId=4bf58dd8d48988d1ca941735
-
- That 4bf58dd8d48988d1ca941735 is the Id of the Pizza Spot Class. Likewise, foursquare restricts us to limit of 100 scenes for each inquiry.

Method:

Also, I repeated the same query for the 4 other cities as well and got their best venues. I saved the name and organize information just from the outcome and plotted them on the map for visual examination.

Next, to get a indicator of the density of Pizza Spots, I determined center co-ordinate of the venues to get the mean longitude and latitude values. At that point I determined the mean of the Euclidean distance from every setting to the mean directions. That was my marker; mean distance to the mean co-ordinate.

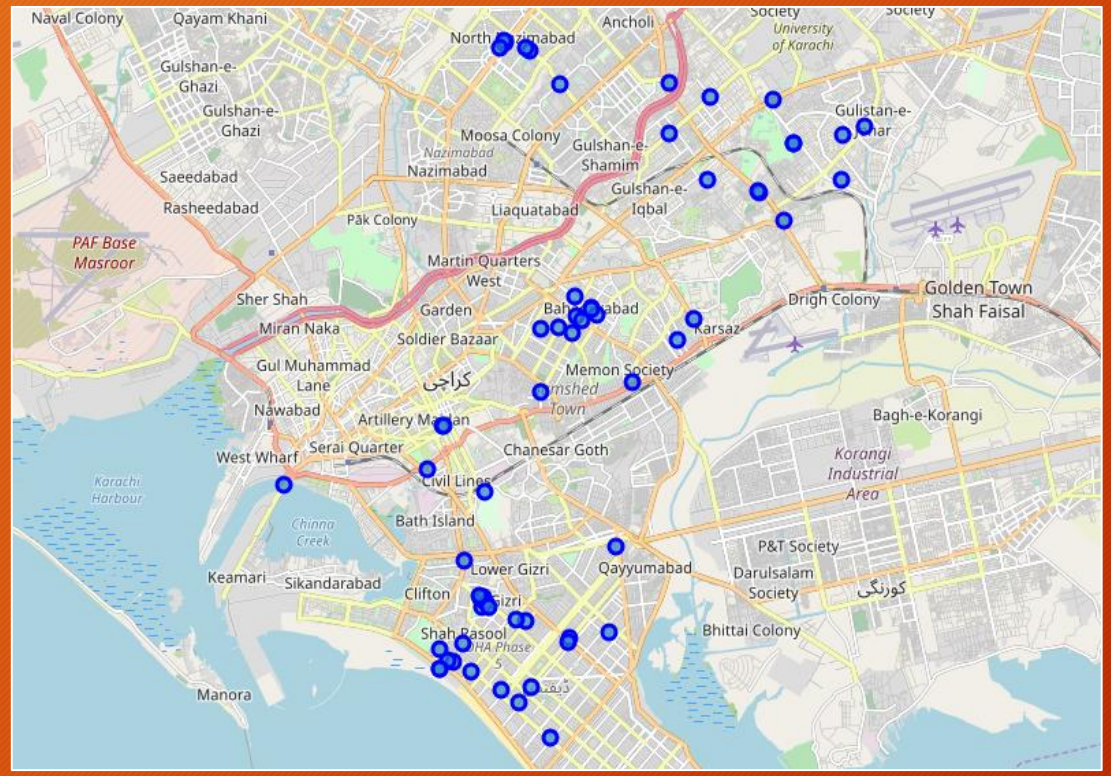
Results:

Based on the initial visual inspection we can see that Karachi and Lahore have most pizza places followed by Islamabad, Quetta and Peshawar have least number of pizza stores.

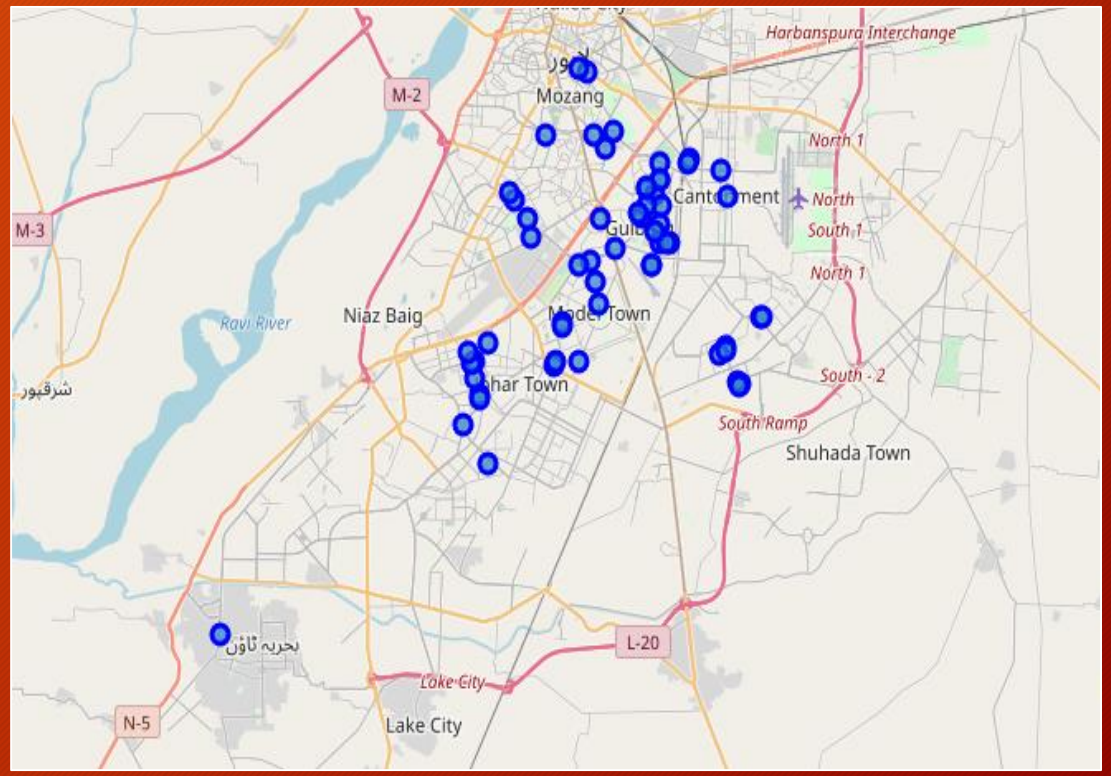
In the next slide are the pictures of geoplot generated with folium.

Results:

- Karachi

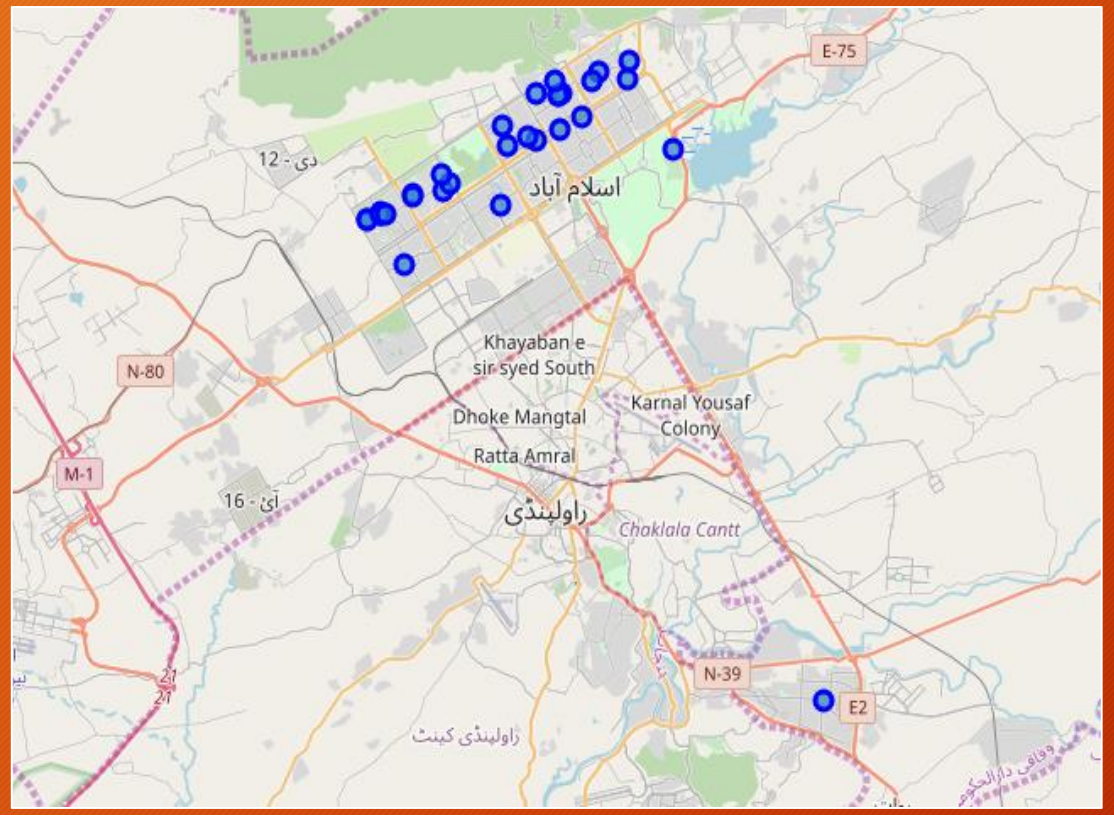


- Lahore

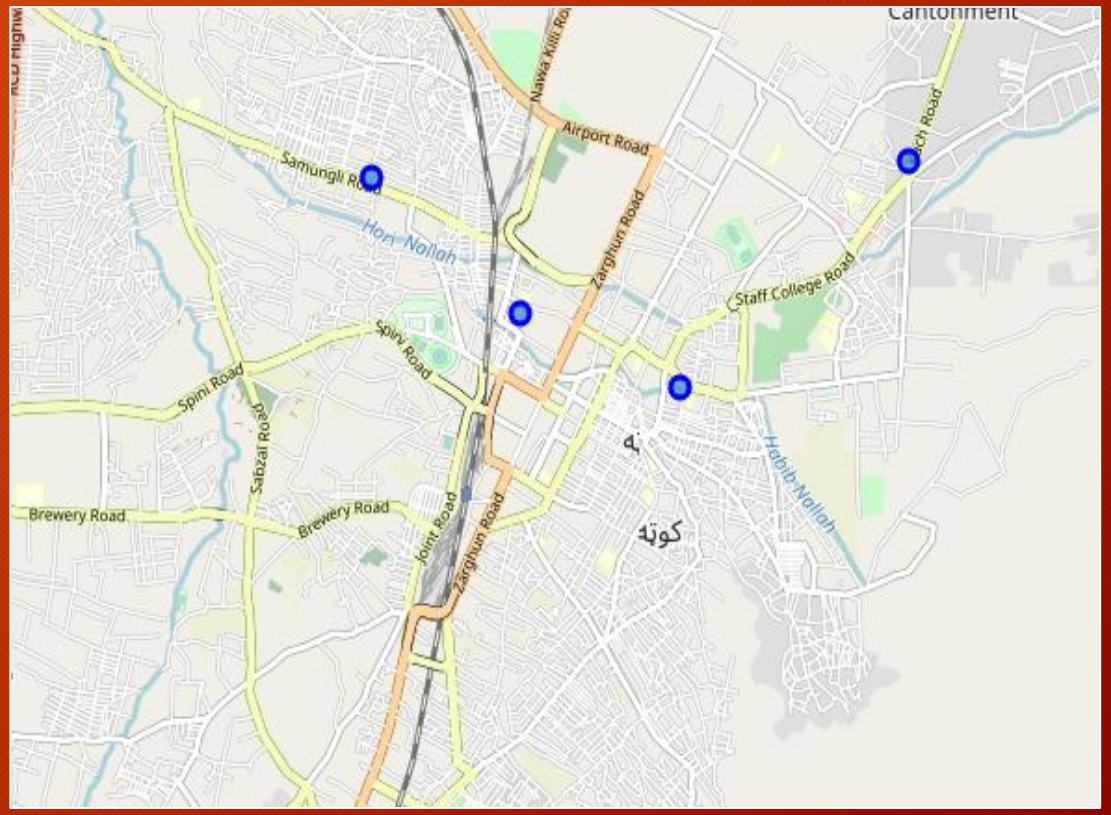


Results:

- Islamabad

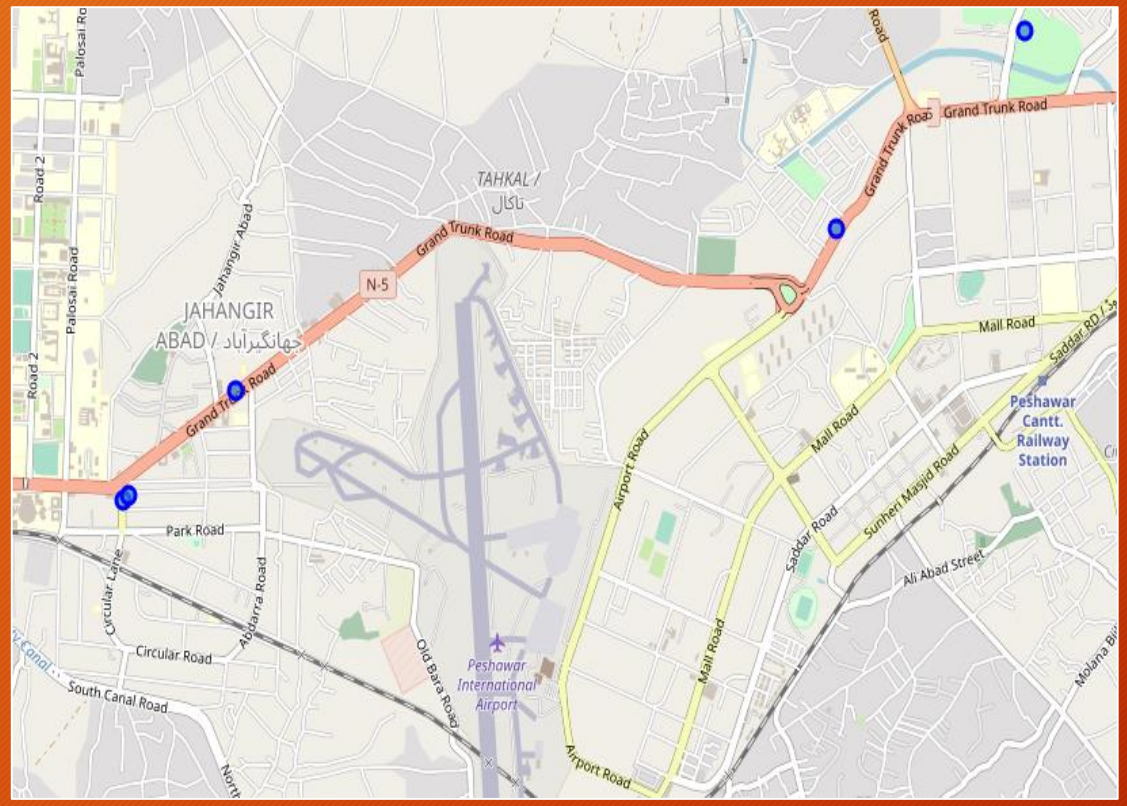


- Quetta



Results:

- Peshawar



Results:

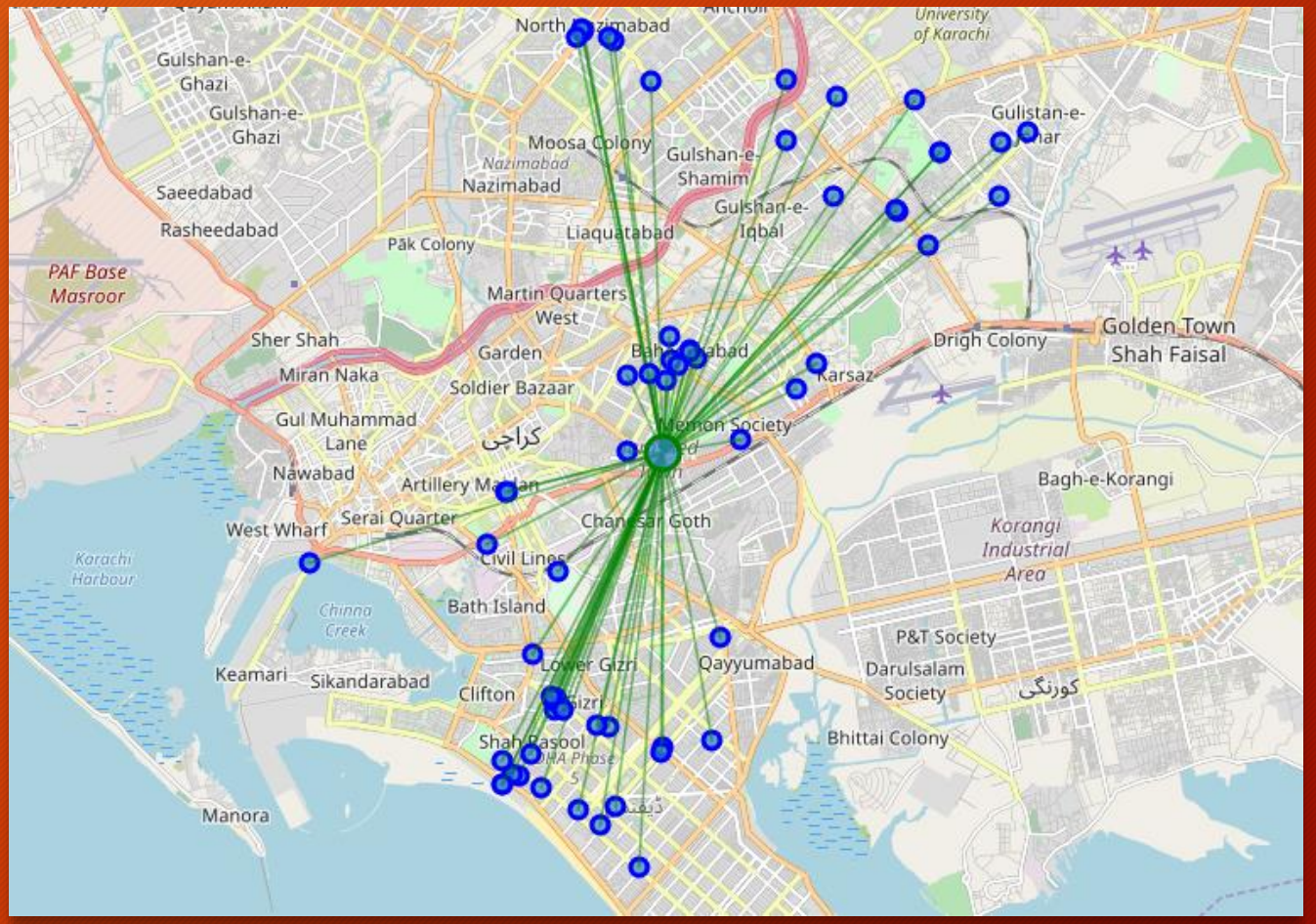
Upon First inspection we see that Karachi, Lahore and Islamabad are the most densely cities.

In the next phase we Calculated the Mean coordinate and the mean distance to mean coordinate (MDMC).

We represent the mean coordinate with a big green circle and distances with green lines

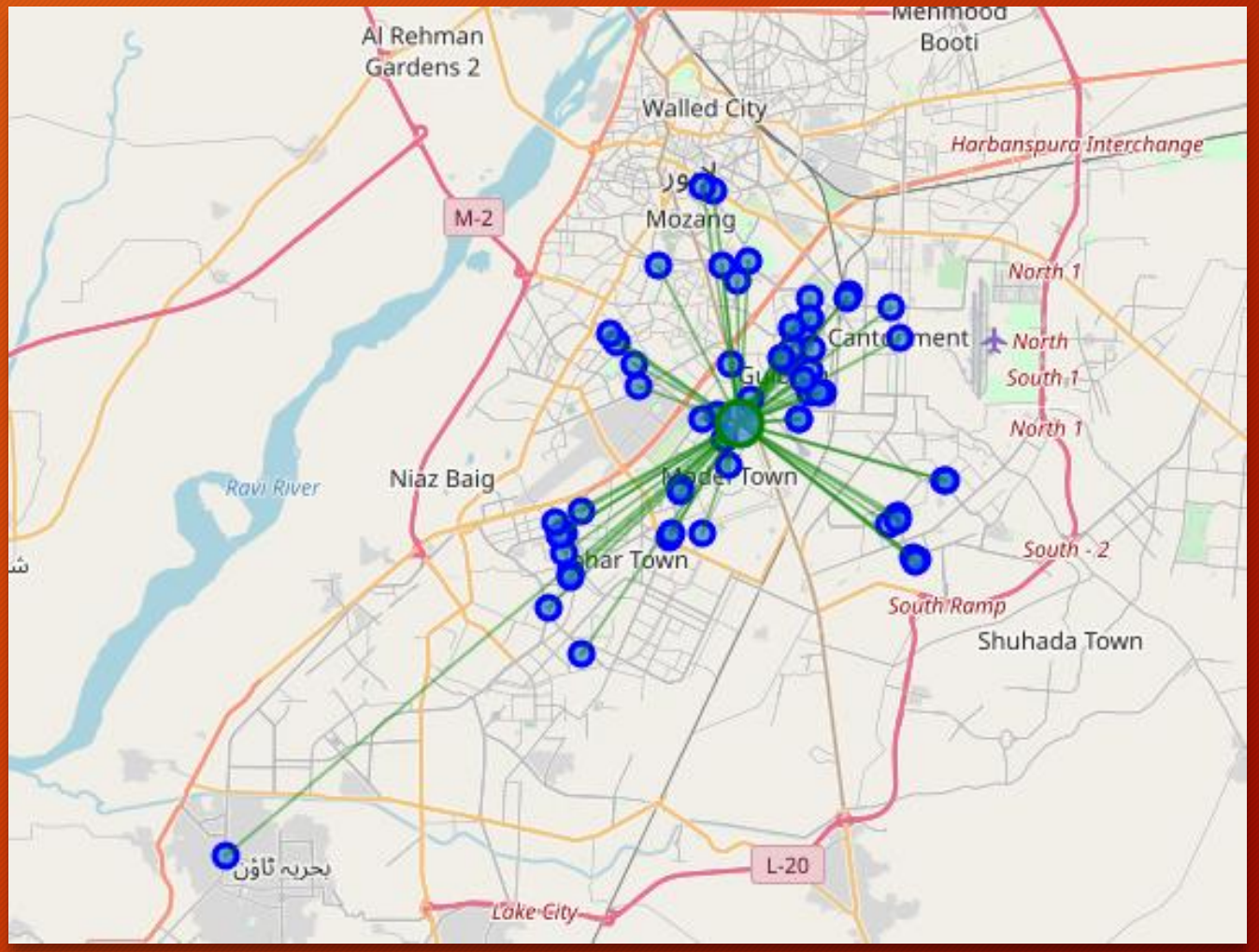
Results:

- Karachi:
- MDMC: 0.054270771528819137



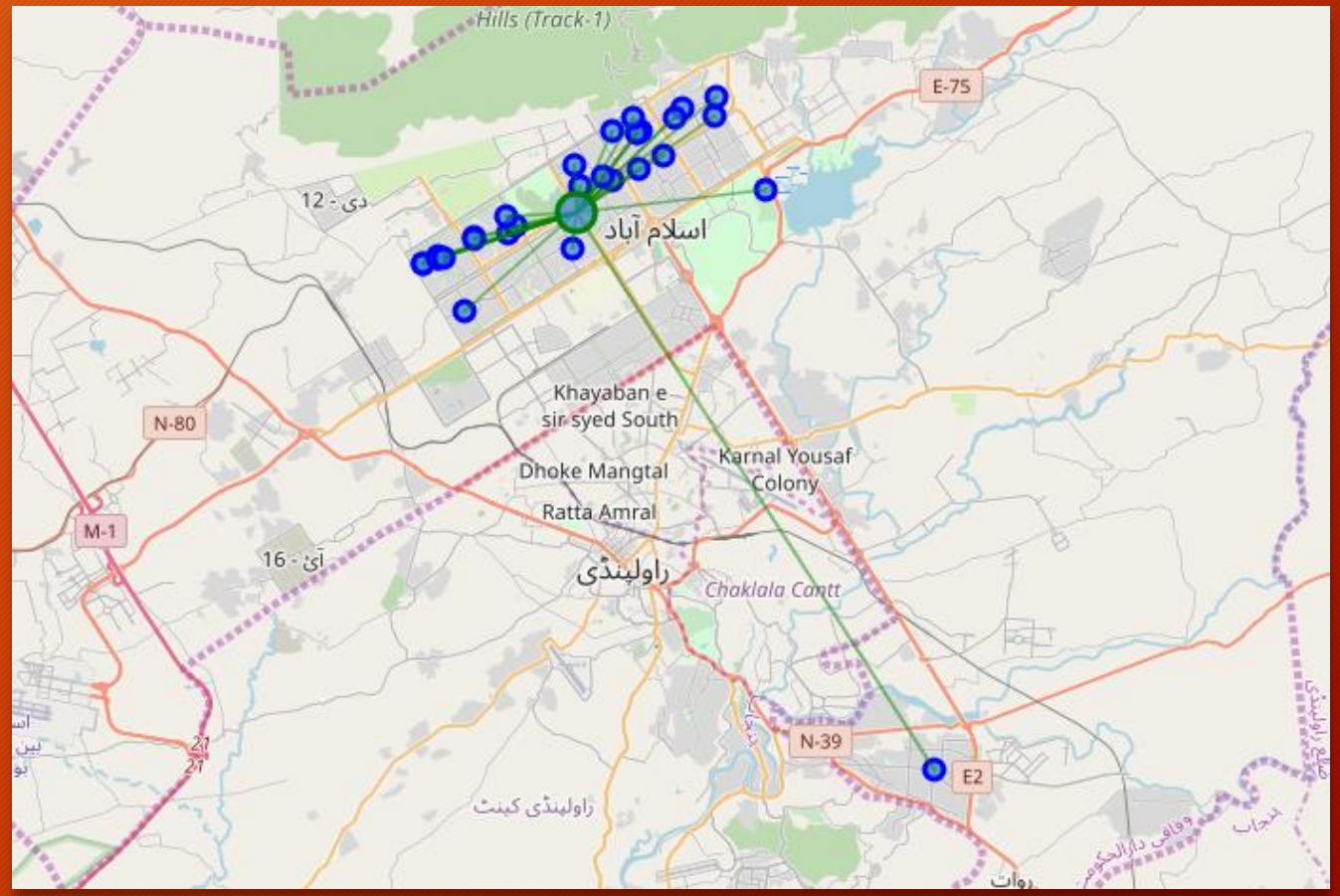
Results:

- Lahore:
- MDMC: 0.044046576252388 99



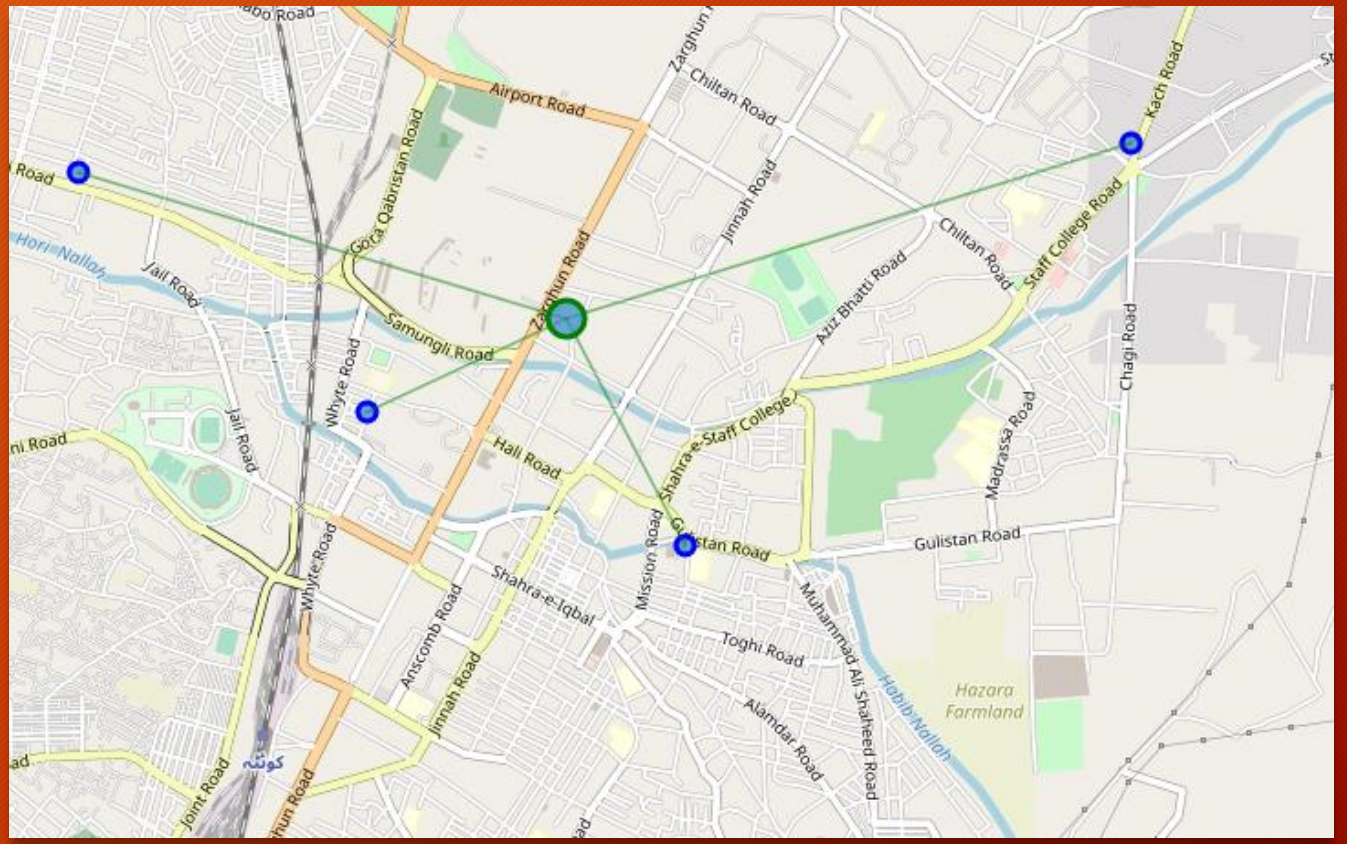
Results:

- Islamabad:
- MDMC: 0.04388346438344819 4



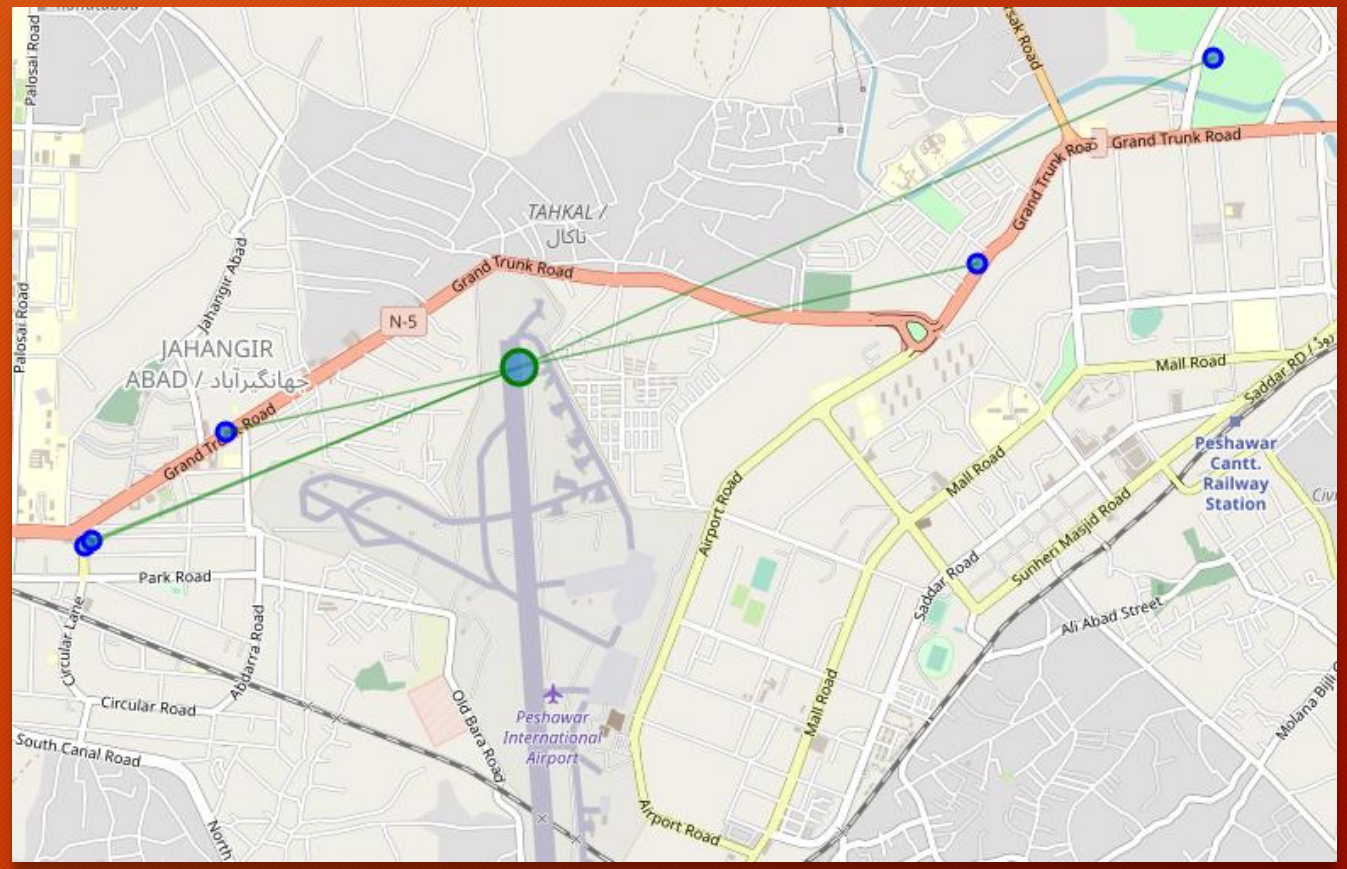
Results:

- Quetta:
- MDMC: 0.017998978965086038



Results:

- Peshawar:
- MDMC: 0.0244146601371890 63



Results

- Therefore, our results are:
  1. Karachi
  2. Lahore
  3. Islamabad
  4. Peshawar
  5. Quetta

Discussion:

One thing to consider in the figure is that there is a faraway Pizza Store in Islamabad that is probably giving it a higher MDMC.

So, I checked what if it could be removed, it would not harm anyone to try 30 pizza places than 31.

The new MDMC was: 0.0382695278645828 which is better than before.

Conclusion:

Now there is no doubt that Karachi and Lahore are the best places to try many Pizza Places in the Pakistan.

Also, if our tourists are done with all the Karachi and Lahore pizza places, he can travel to Islamabad and enjoy 30 more.

I would recommend that our tourist stay at a hotel that is near to the mean co-ordinate.

Thank you