COURSERA CAPSTONE PROJECT:

Opening a New Shopping Mall in Casablanca, Morocco

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BUSINESS PROBLEM

- **Location of the shopping malls is one of the most important factors which determine wether the mall will be a succes or a failure**

- **Objective:**

Anlayzing and defining the best location in the city of Casablanca, Morocco to open a new shopping mall

- **Business question:**

In the city of Casablanca, Morocco, if a property developer is looking to open a new shopping mall, where would you recommend that they open it?

DATA

- **Data requirements**
  - **List of neighborhoods in Casablanca**
  - **Latitude and longitude coordinates of the neighborhoods**
  - **Venue data and data related to shopping malls**

- **Data sources**
  - **Wikipedia page for neighborhoods**
  - **Geocoder package for latitude and longitude coordinates**
  - **Foursquare API for venue data**

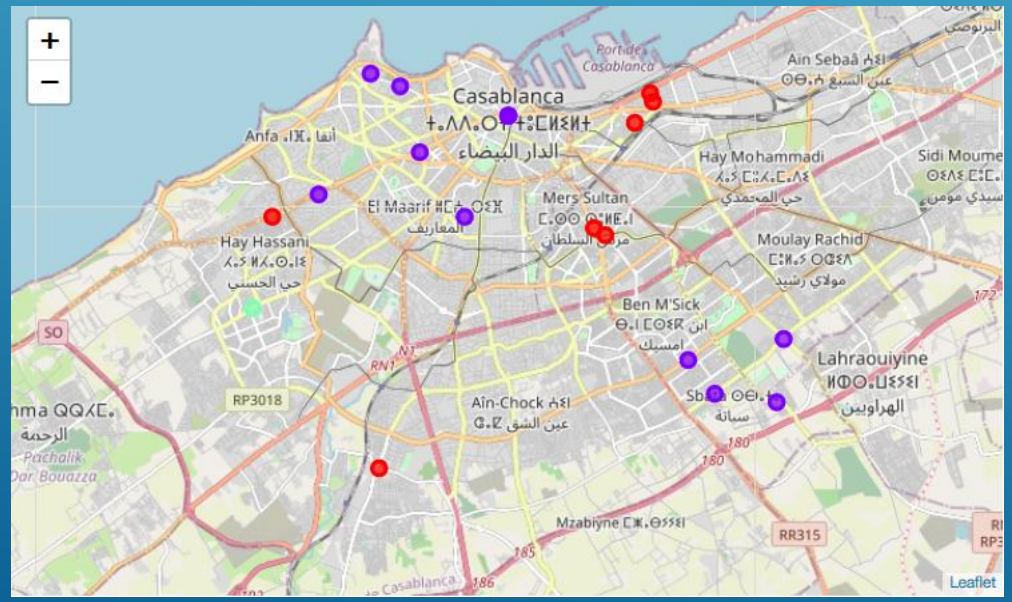
METHODOLOGY

- Web scraping Wikipedia page for neighborhoods list
- Get latitude and longitude coordinates using Geocoder
- Use Foursquare API to get venue data
- Group data by neighborhood and taking the mean of the frequency of occurrence of each venue category
- Filter venue category by Shopping Mall
- Perform clustering on the data by using k-means clustering
- Visualize the clusters in a map using Folium

RESULTS

Categorized the neighborhoods into 3 clusters :

- **Cluster 0: Neighborhoods with moderate number of shopping malls**
- **Cluster 1: Neighborhoods with high concentration of shopping malls**
- **Cluster 2: Neighborhoods with low number to no existence of shopping malls**



DISCUSSION

- Most of the shopping malls are concentrated in the central area of the city
- Highest number in cluster 1 and moderate number in cluster 0
- Cluster 2 has very low number to no shopping mall in the neighborhoods
- Oversupply of shopping malls mostly happened in the central area of the city, with the suburb area still have very few shopping malls

RECOMMENDATIONS

- Opening new shopping malls in neighborhoods of cluster 2 with little to no competition
- Opening in neighborhoods of cluster 0 with moderate competition if having unique selling propositions to stand out from the competition
- Avoiding neighborhoods of cluster 1, already high concentration of shopping malls and intense competition

CONCLUSION

- **Answer to business question: The neighborhoods in cluster 2 are the most preferred locations to open a new shopping mall**
- **Findings of this project will help the relevant stakeholders to capitalize on the opportunities on high potential locations while avoiding overcrowded areas in their decisions to open a new shopping mall**

THANK YOU