

# Data Analysis for Alsayegh Charitable Foundation

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# Back story:

Al-Sayegh Charitable Foundation wants to establish a charity market during the summer season Alsayegh charitable foundation wants to take advantage of crowded stations to establish the market near to one of the train stations.

# Dataset

MTA: data files containing numbers of cumulative entries and exits and stations, turnstile, dates and time

Dataset: from June 22, 2019 to September 28, 2019. Because it is the duration that corresponds with the summer season .

- Rows 3100324
- columns 11

# Tools :

Python

Jupyter  
notebook

Matplotlib

NumPy

SQLAlchemy

Seaborn

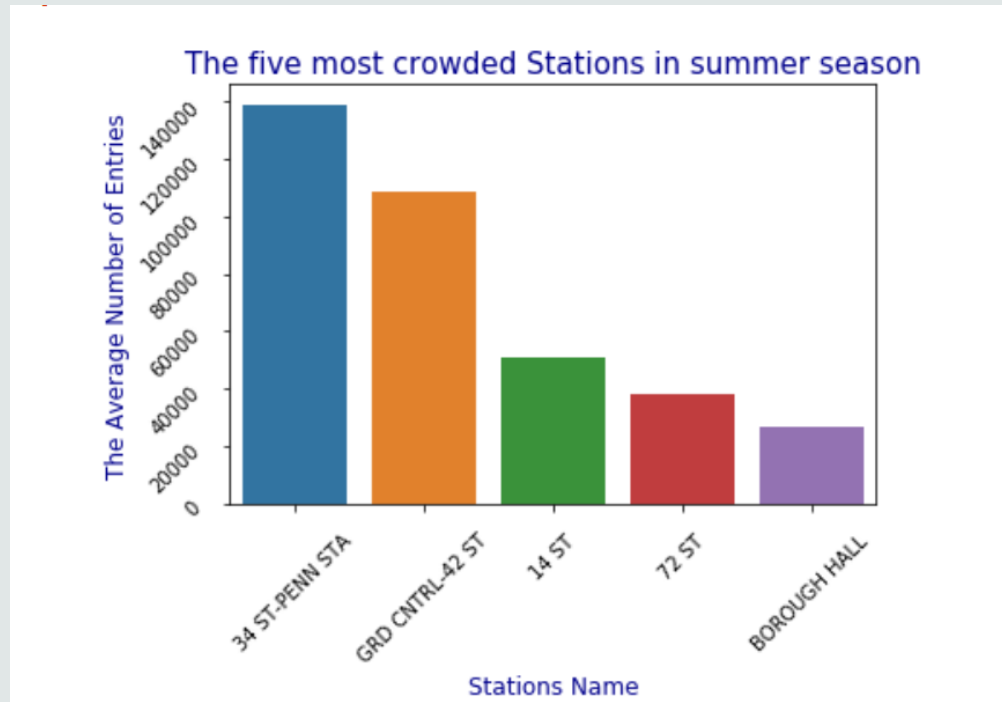
Pandas



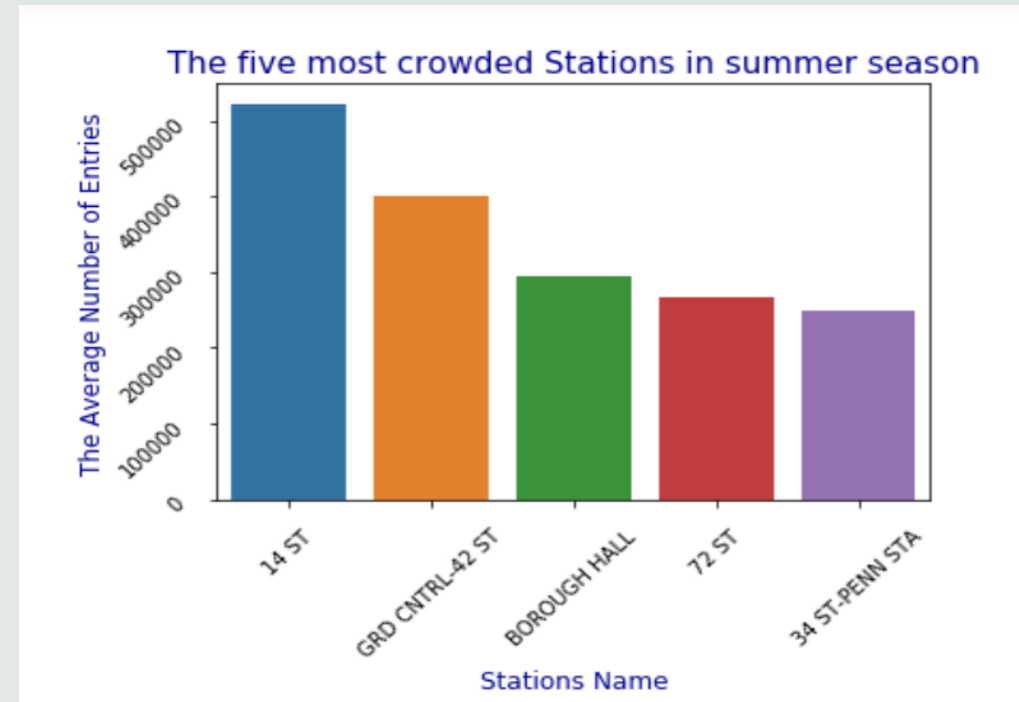
# Cleaning data :

- Check nulls: no nulls
- Fix Columns : Strip column names
- Add new columns : DATE and Daily Entries After
- Check Duplicates: drop the duplicate

# Bar chart before and after cleaning the data

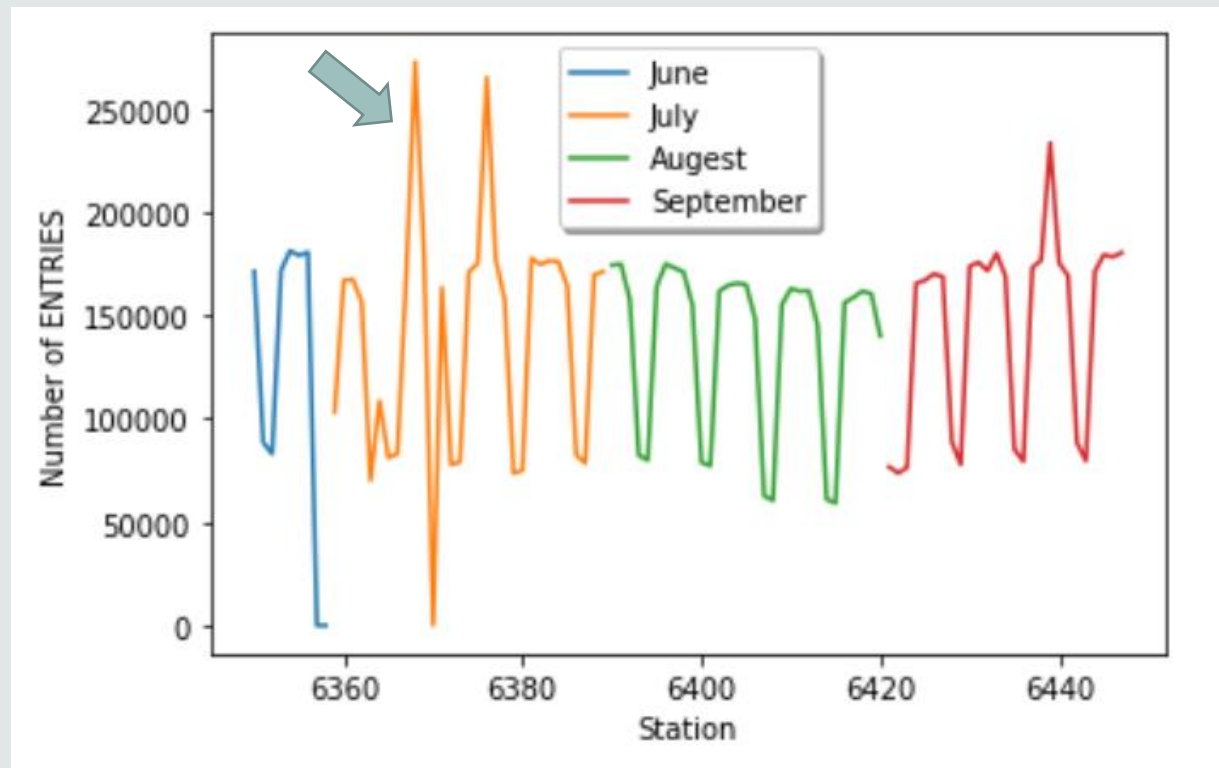


**After**

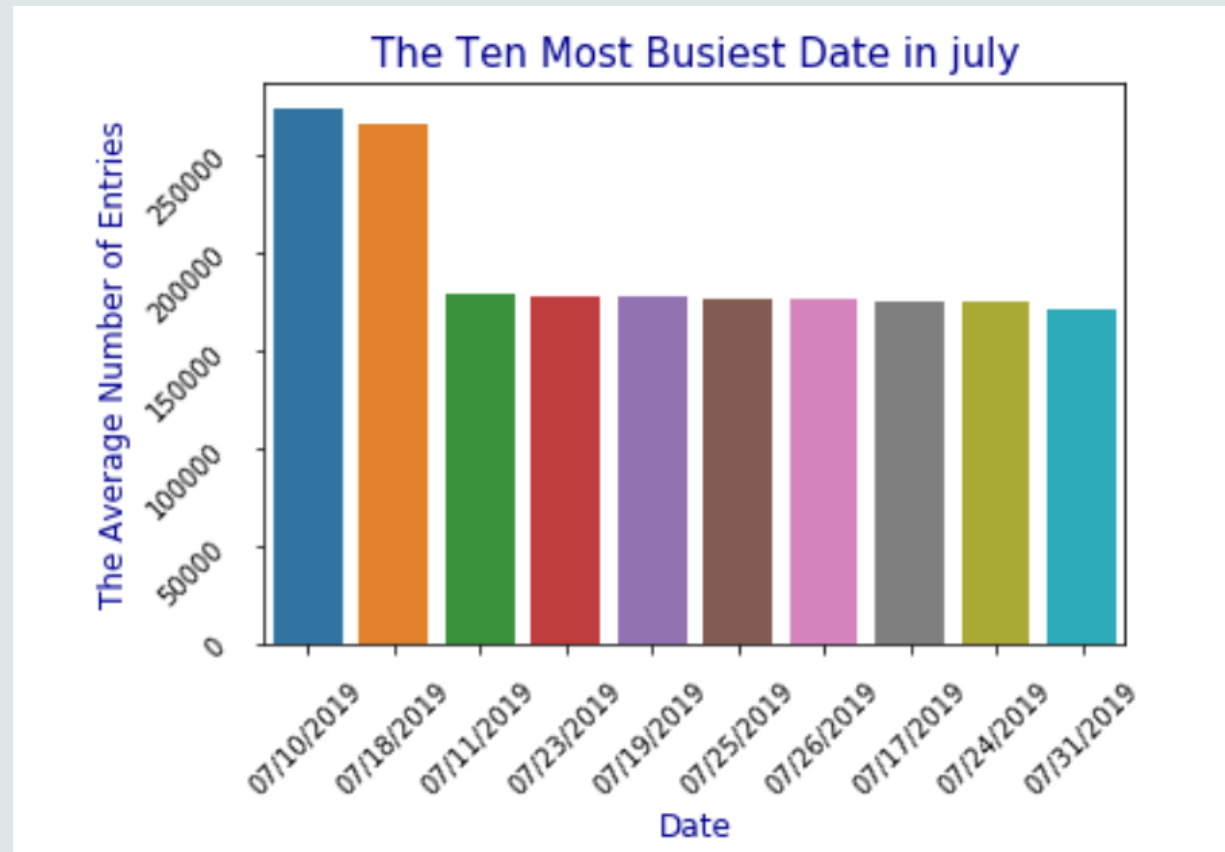


**Before**

# The most crowded month



# The most crowded date





# Conclusion:

- We suggest to alsayegh charitable foundation to establish the market in 10th of July near to 34 ST-PENN STA that located at the intersection of 34th Street and Seventh Avenue.

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# Future work :

- Determine the best time to establish the market
- Get additional data to study the income for the residents of the area

