



**METIS**



# COVID-19

Exploratory Data Analysis  
(EDA) of MTA turnstile data

**CDC**

Methodology

Recommendation

Tools

**Data  
Cleaning**



# Back Story:

The world is experiencing a once-in-a-lifetime pandemic and as a **CDC** (Centers of Disease Control and Prevention) we will maximize protection from the **COVID-19** and prevent possibly spreading it to others.

Objectives



# Objective



- Our goal of this project is to provide people with vaccination centers and provide enough space in each station.

Data Source

- This will help To reduce the risk of infection and prevent COVID-19

Sample



# Dataset

**Metropolitan Transportation  
Authority (MTA)**



## Sample

*Last four months of 2020  
(September - December)*

- Data size over 3 million



# Tools:

## Data:

pandas



NumPy



Seaborn

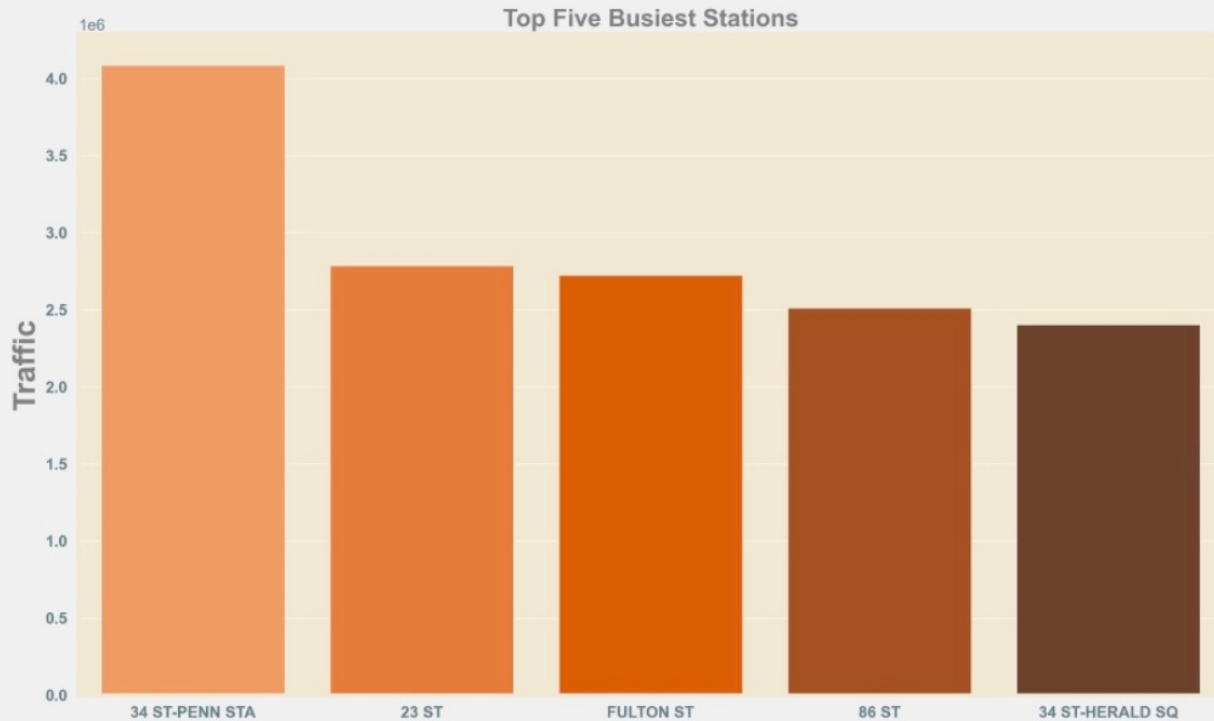
matplotlib



## Data Visualization :



# Key Findings:



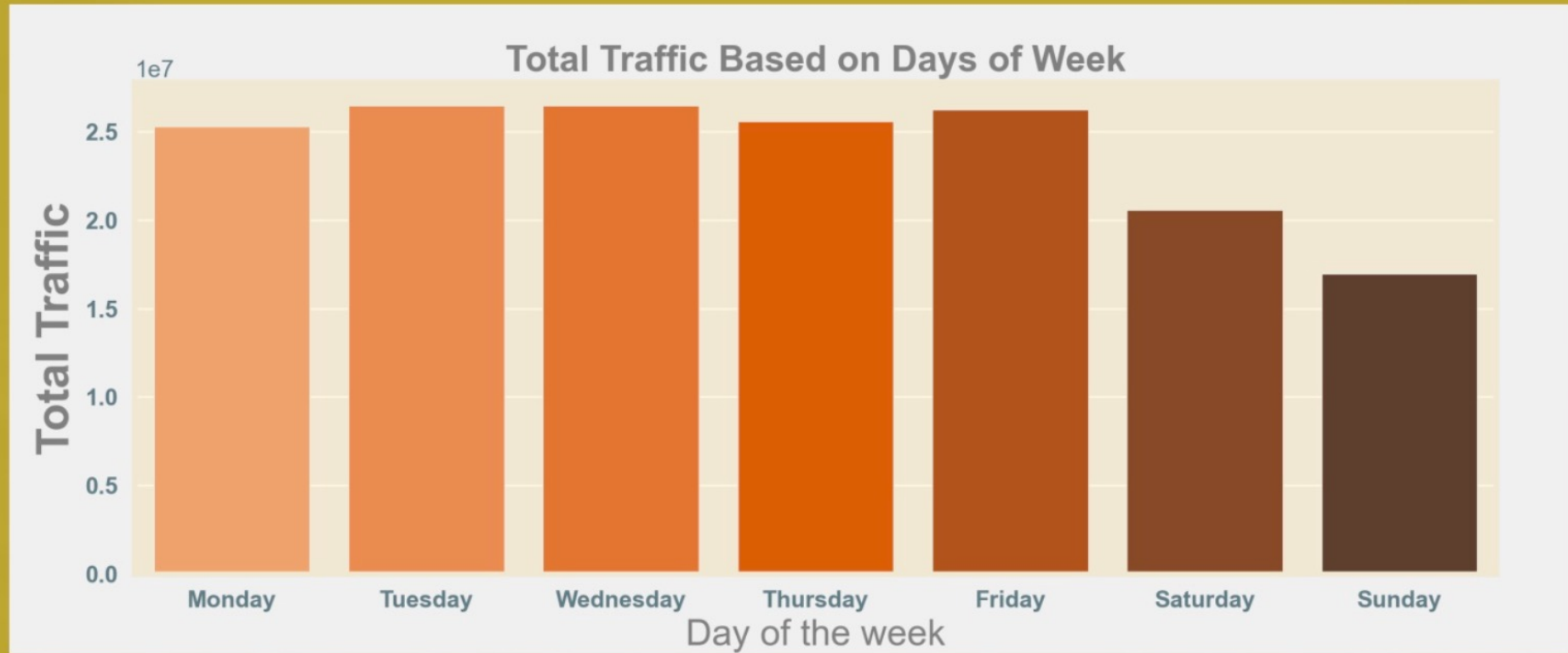
Top 5 busiest stations :

- Penn Station
- 23rd Street
- FULTON ST
- 86 ST
- 34 ST-HERALD SQ

Focus on these stations

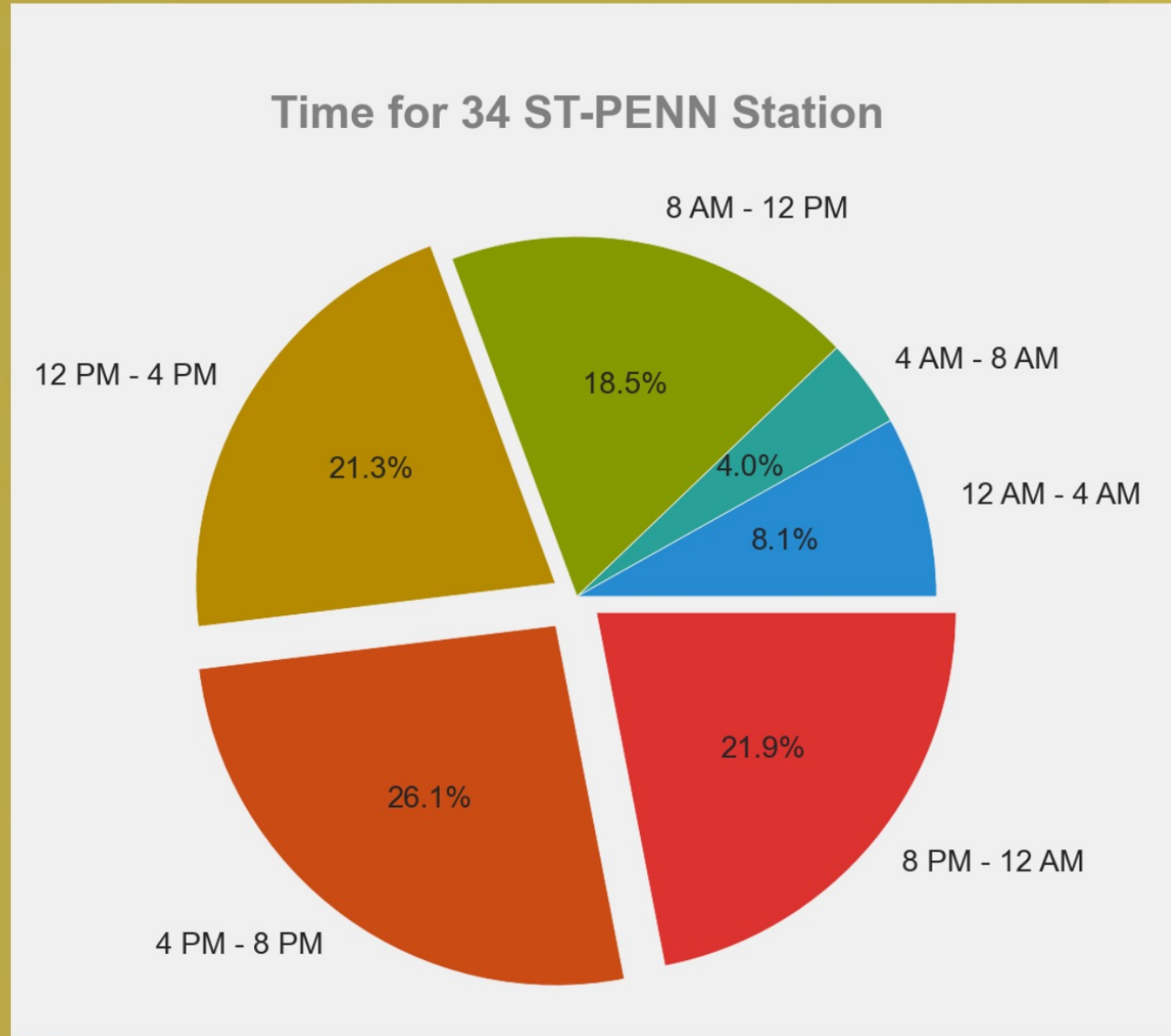
# Key Finding

- **Weekends** generally see less traffic
- **Weekdays** generally see more traffic

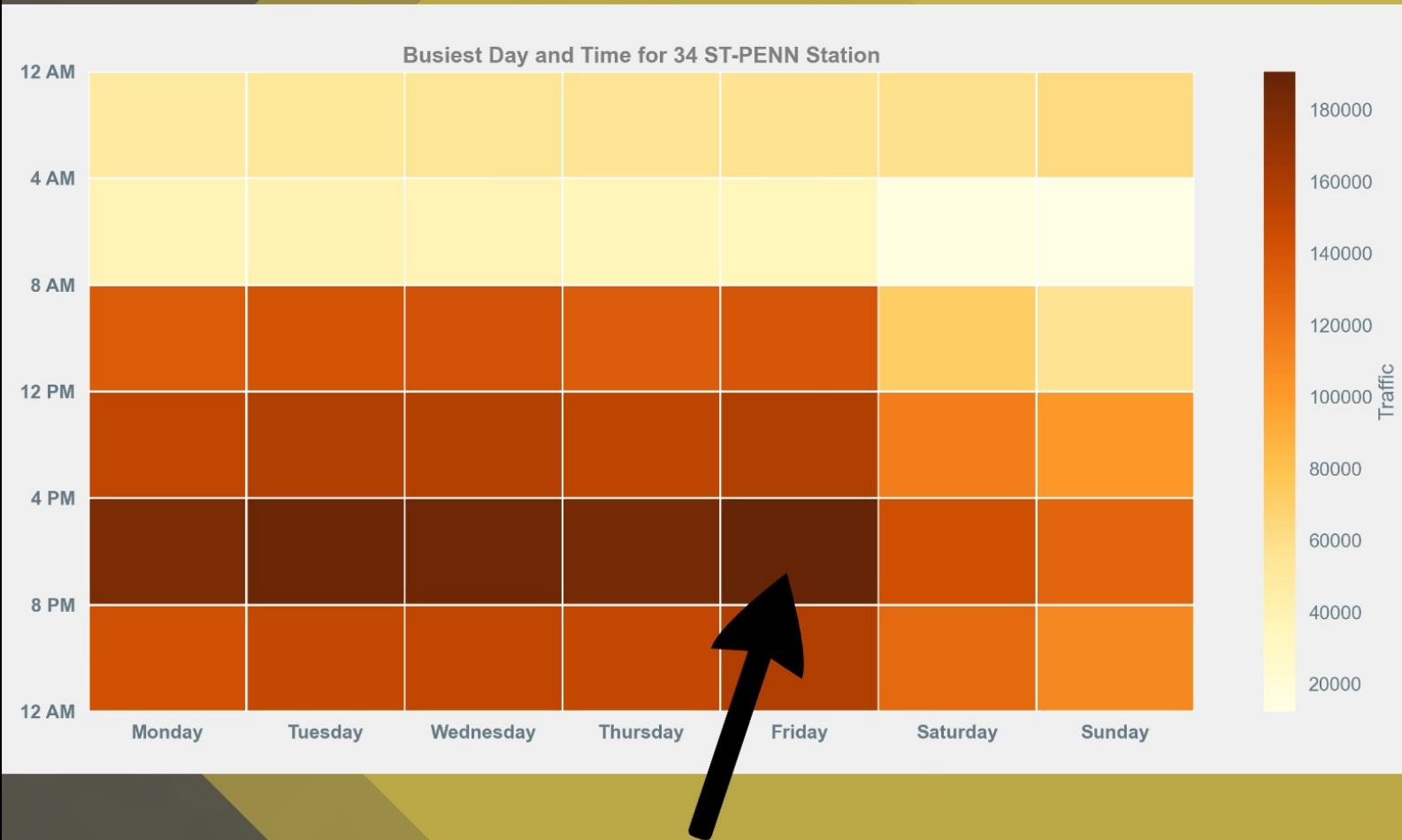




**Evening** is the best time



# Key Findings:



The **best time** to put  
vaccination centers :

**Friday, 4 PM - 8 PM**



## Recommendation & Opportunities for the future



**Where**

**5 Stations**



**When**

**Weekdays**



**Time**

**Evening**



THANK YOU..

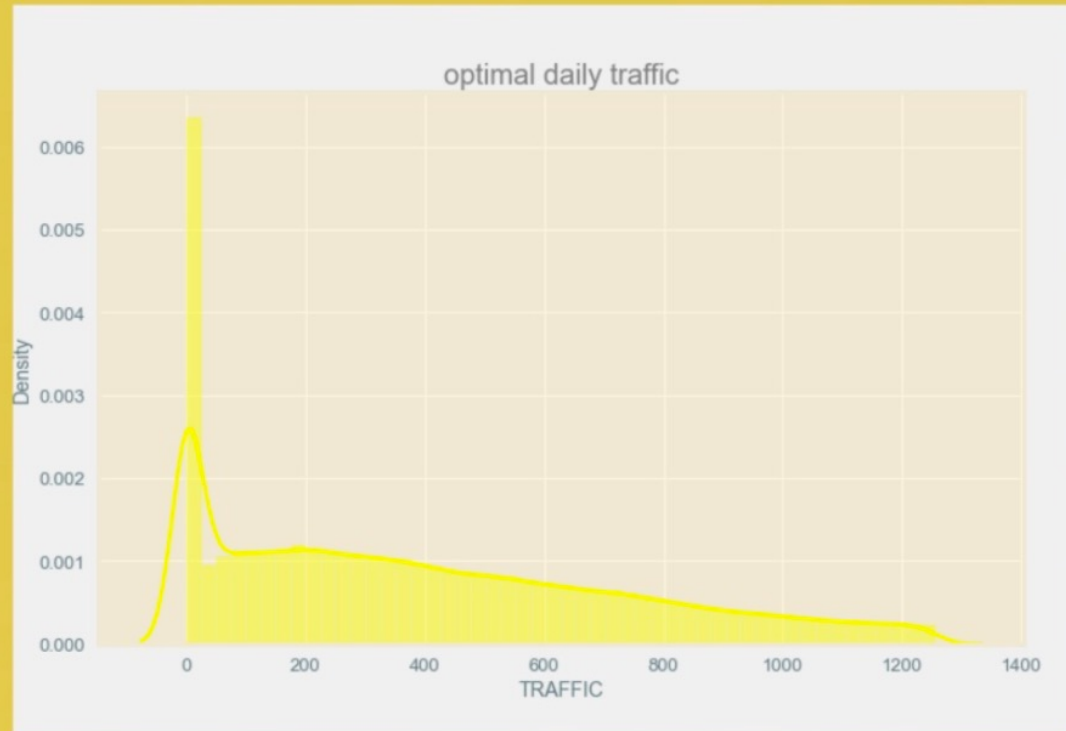
Appendix:

Reference



# Appendix:

Outlier:



# Reference

MTA Data set:

<http://web.mta.info/developers/turnstile.html>