NEW YORK
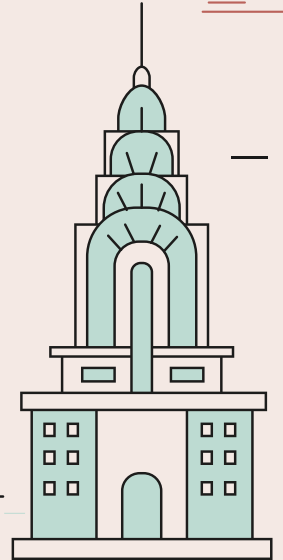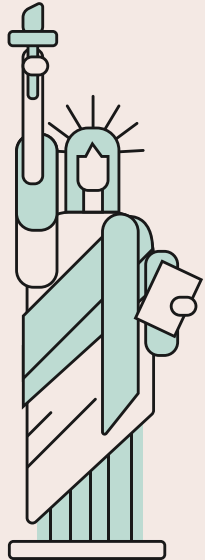
Subway analysis

By: Gleb Radchenko
Injung Ahn
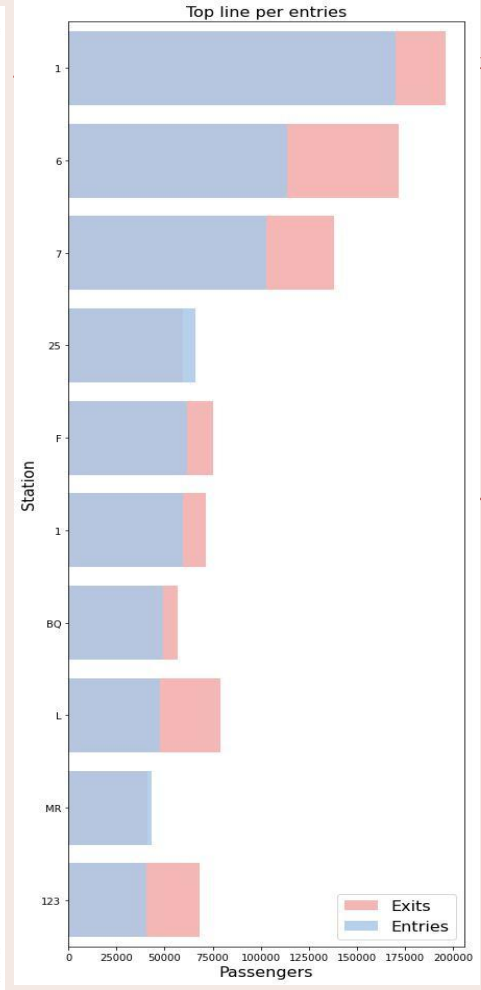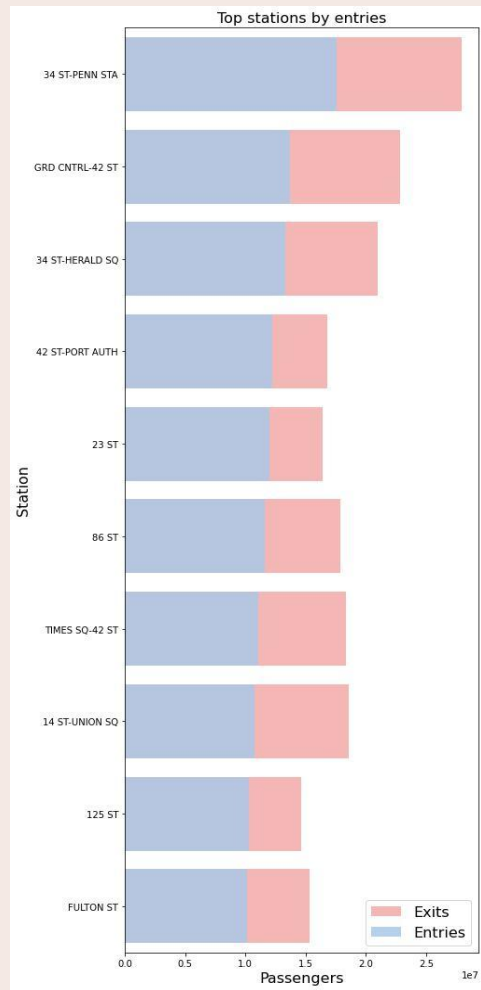Logan Marett
Nina Mamaeva

Most popular subway stations and lines

NYC Subway Stations can handle up to 28 millions people annually

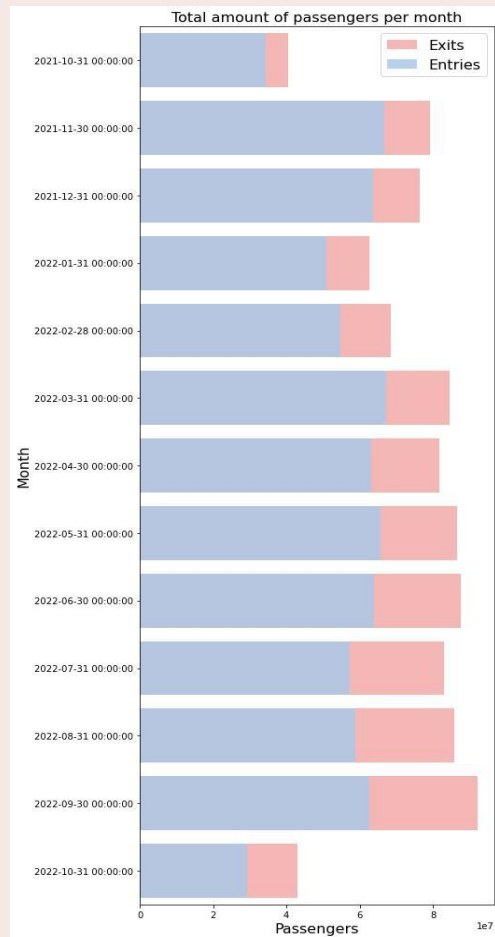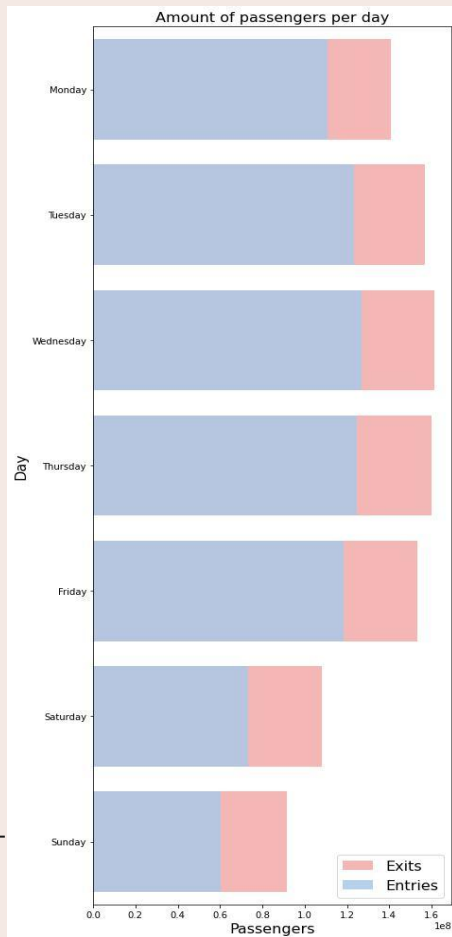It is one of the oldest subway systems on the planet

The 23 lines make their way through NYC's 468 stations 24 hours a day, 7 days a week, 365 days a year.
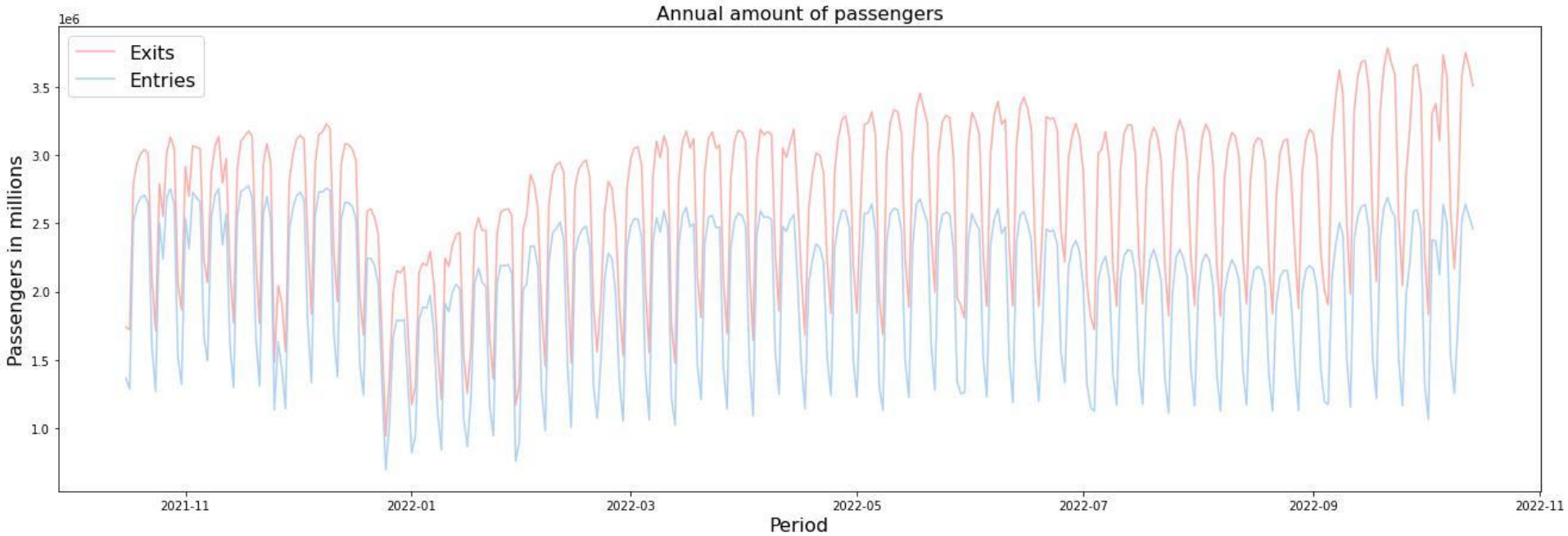

Top stations by entries

Stations (top to bottom): 34 ST-PENN STA, GRD CNTRL-42 ST, 34 ST-HERALD SQ, 42 ST-PORT AUTH, 23 ST, 86 ST, TIMES SQ-42 ST, 14 ST-UNION SQ, 125 ST, FULTON ST

Legend: Exits, Entries

Top line per entries

Lines (top to bottom): 1, 6, 7, 25, F, 1, BQ, L, MR, 123

Legend: Exits, Entries

Weekly and monthly load

**Most busy days
Wednesday
Thursday**

**Least busy
Sunday**

**Top month is
September.
And the least
loaded is
October**

Amount of passengers per day

Total amount of passengers per month

Yearly load of the whole subway system

Annual amount of passengers
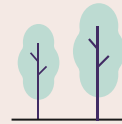
738 115 615

Total amount of entries per year:
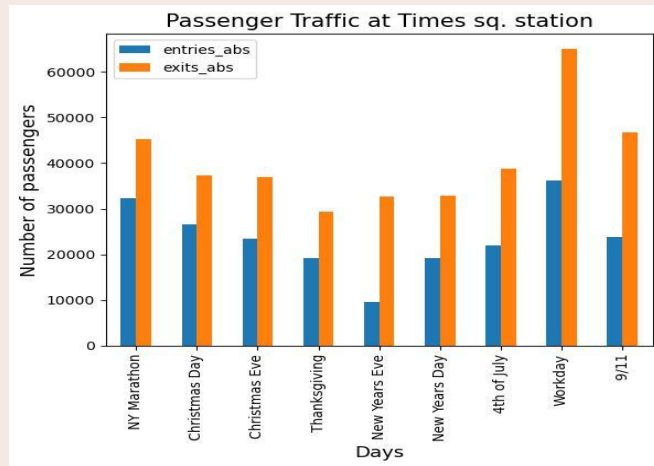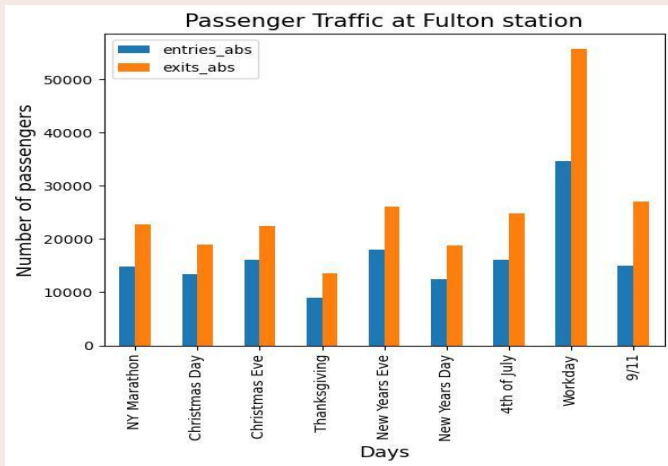
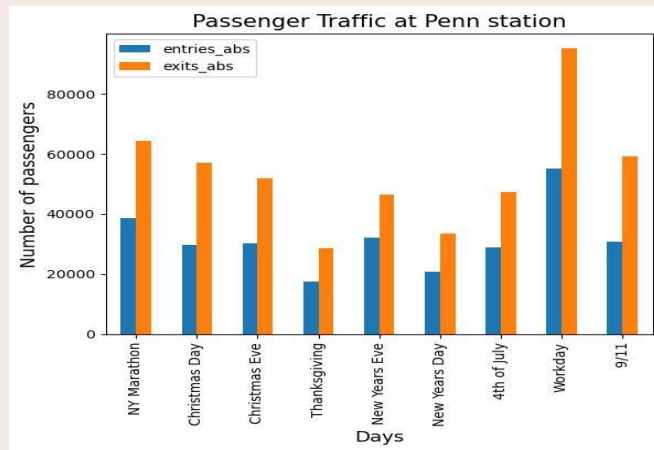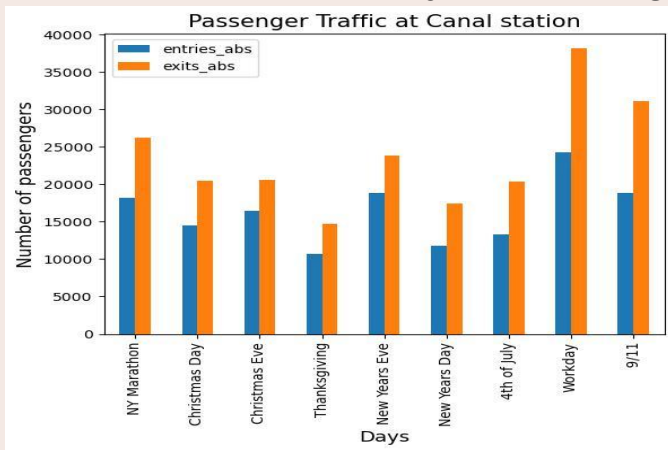# 971 819 557

Total amount of exits per year:

233 703 942
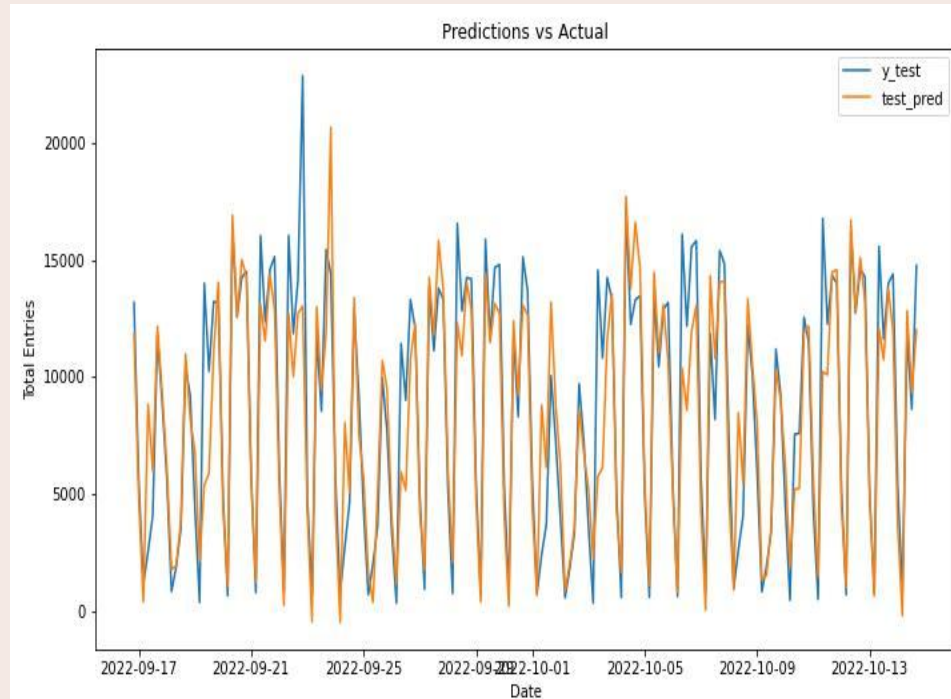
Difference:

Traffic flow for holidays and major events:
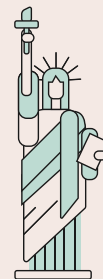
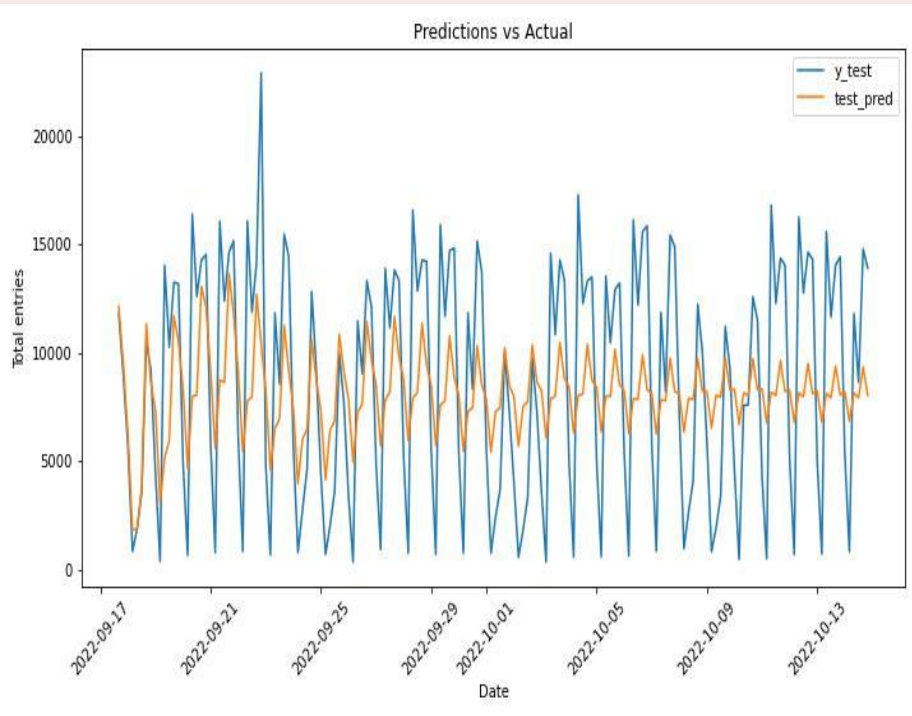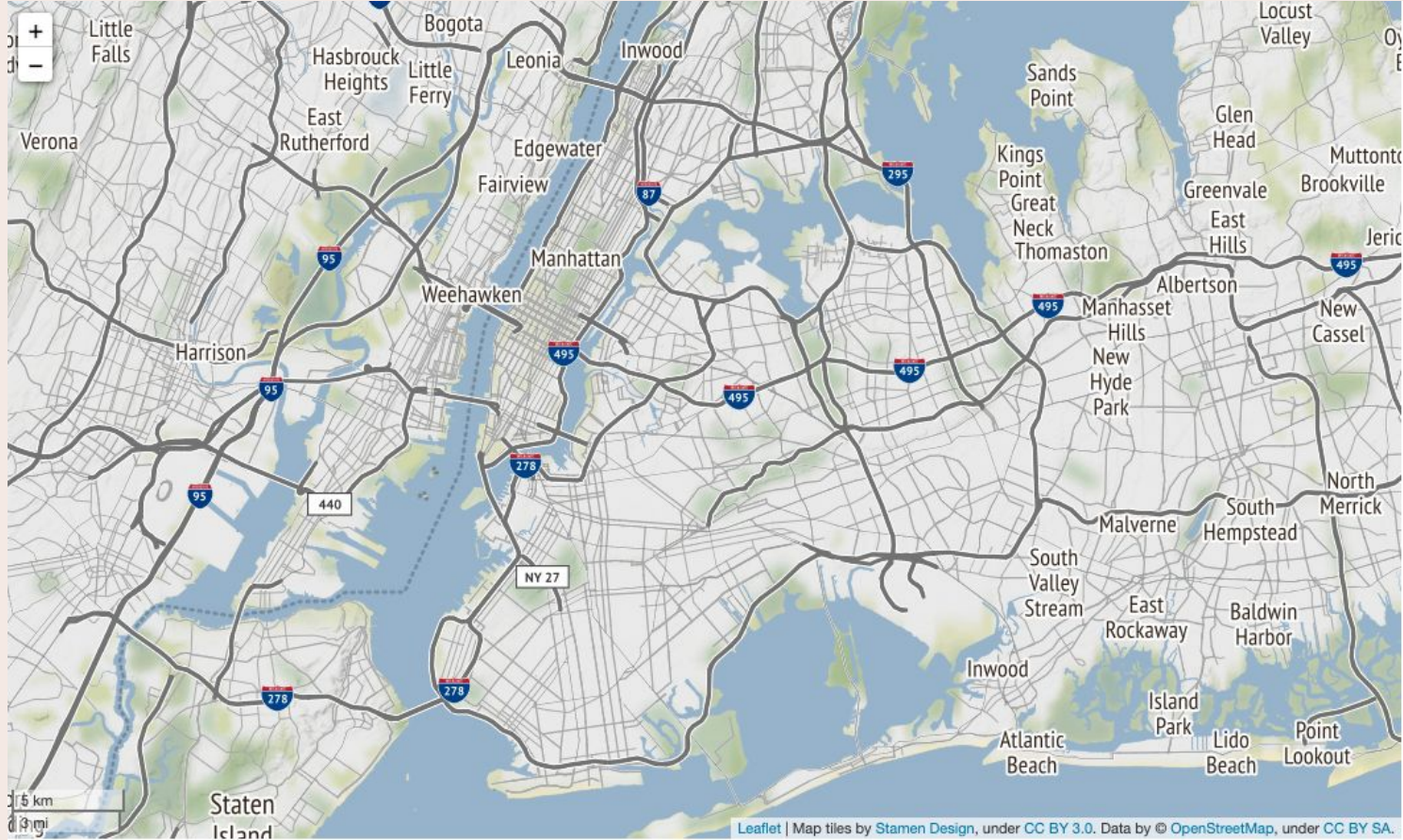# Model Metrics

Baseline Metrics	Entries	Exits	Traffic
MAPE	248%	244%	242%
RMSE	5478 entries	11750 exits	16567

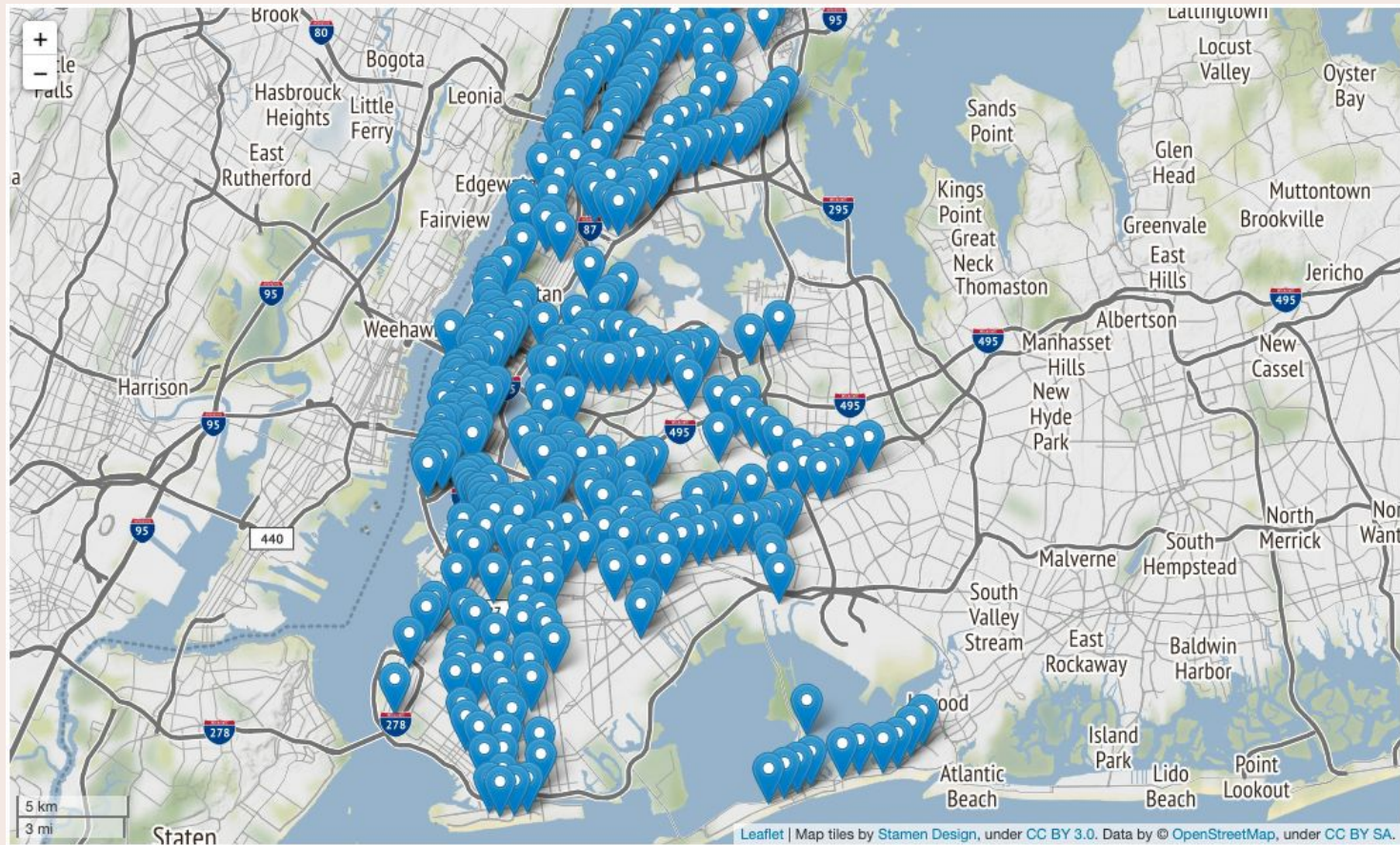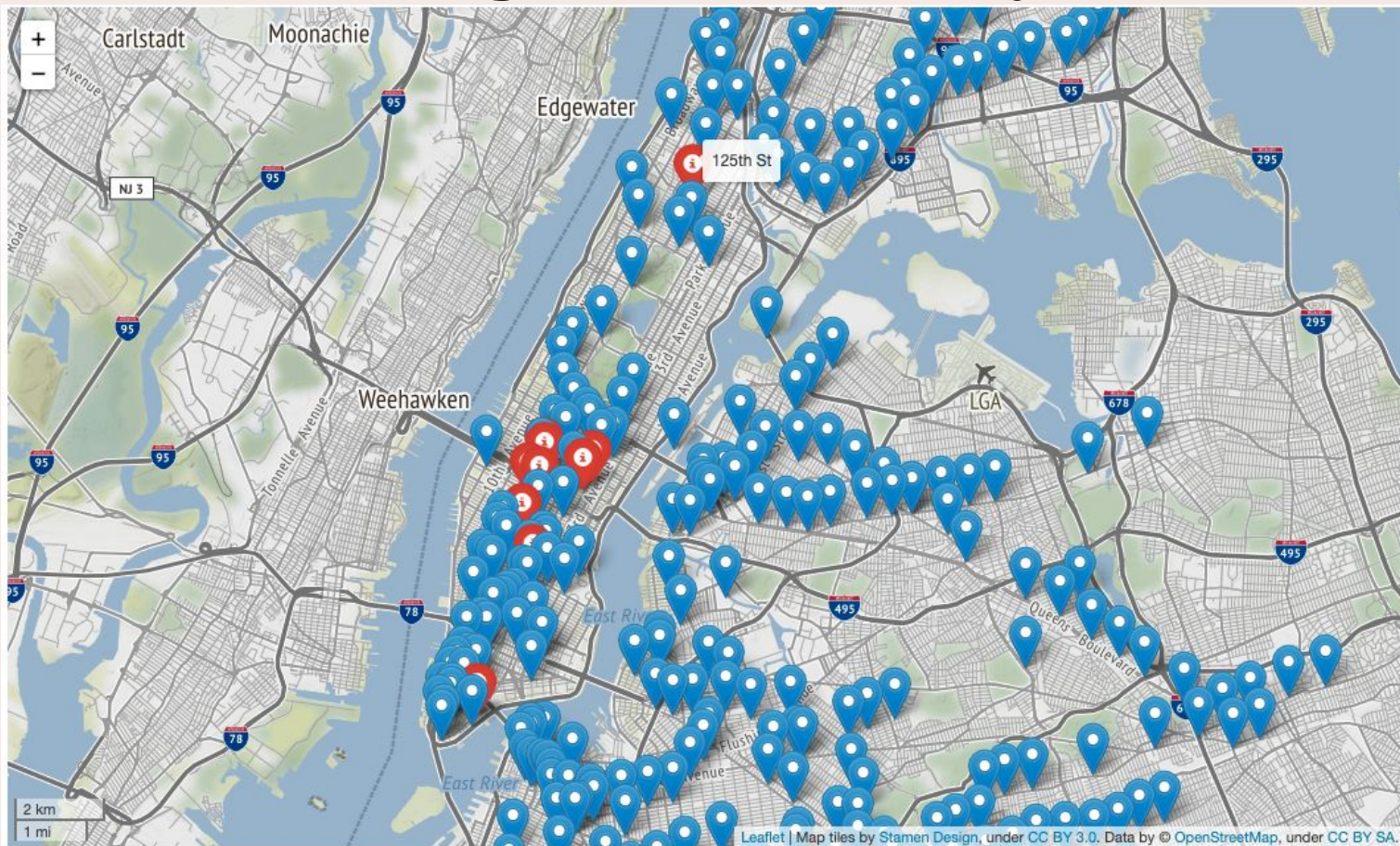| AR Metrics	Rolling Entries	Entries	Exits	Traffic
MAPE	41.9%	169.18%	64.29%	64.7%
RMSE	2356 entries	4507 entries	6337 exits	9190 exits + entries

Base AR Model vs Rolling AR Model

Visualizing the NYC Subway Stations

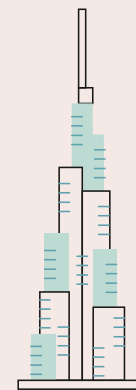# Visualizing the NYC Subway Stations
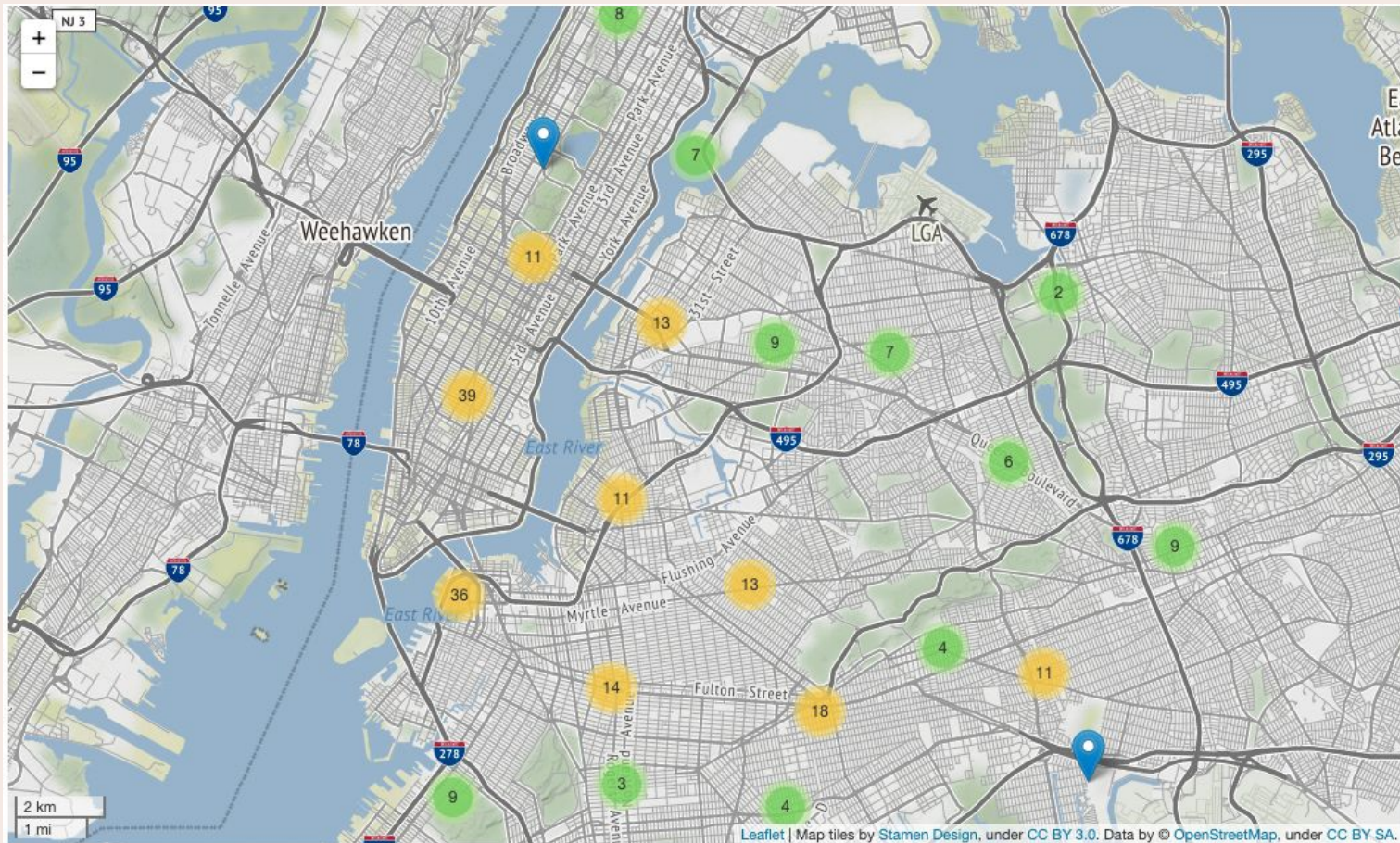
Visualizing the NYC Subway Stations

Visualizing the NYC Subway Stations

Visualizing the NYC Subway Stations

I ♥ NY

To the app!

THANKS!

Does anyone have any questions?