Metro Library (EDA)

New York City is one of the largest hotspots in the world that mostly relays on metro for transportations, our goal is to open a library with a coffee shop in the stations that has the most number of entries, since the need for comfortable waiting area would be more in the stations that has entries traffic, also we will provide a Book return machine for the customers who wants to continue reading a book in stations that has the most Exits traffic.

We have studied the MTA data in a range of 3 months (July/August/September 2021) to decide which stations we should focus on

Question/need:

Open a Library based on station traffic:

- Entries traffic to open a library with a place to read.
- Exits traffic to provide Book return machine.

Open the library will help:

- The book store to increase their income.
- Improve the experience for visitors.

Data Description:

The New York subway MTA turnstile data is a series of data files containing cumulative number of entries and exits by station, turnstile, date and time. Data files are produced weekly, data records are collected typically every 4 hours with some exceptions.

In this analysis we use data between May 01, 2021 and October 02, 2021.

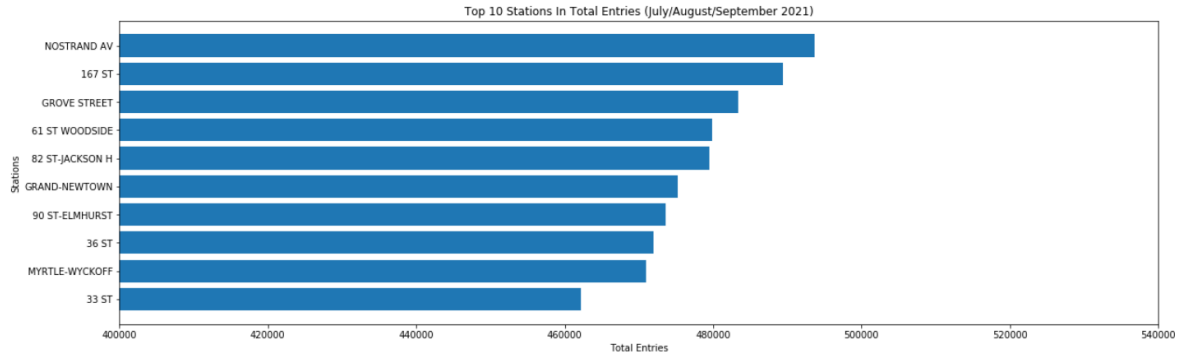
Variables included in initially processed data:

- C/A = Control Area (e.g., A002)
- unit = Remote Unit for a station (e.g., R051)
- SCP = Subunit Channel Position represents an specific address for a device (e.g., 02-00-00)
- station code = C/A + unit, locating a station
- turnstile = C/A + unit + SCP, locating a turnstile
- Station = Represents the station name the device is located at
- date = Represents the date (MM-DD-YY)
- time = Represents the time (hh:mm:ss) for a scheduled audit event
- datetime = date + time (MM-DD-YY hh:mm:ss)
- DESC = Represent the "REGULAR" scheduled audit event (Normally occurs every 4 hours)
- entries = The cumulative entry register value for a device
- exits = The cumulative exit register value for a device

Tools:

Communication

This graph shows the top 10 station with the maximum entries in the weekdays



This graph shows the top 10 station with the maximum exits in weekdays and weekends