



EDA (EXPLORATORY DATA ANALYSIS) Of MTA Turnstile data New York CITY

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I. Background

The world is experiencing a once-in-a-lifetime pandemic that necessitates controlling and limiting the capacity in public and crowded places. We keen to preserve the health and safety of citizens and residents from the risk of the spread of novel coronavirus. Our task was to use New York City MTA Turnstile data and cooperation with Ministry of Health to avoid crowed place and to provide people with vaccination centers and provide enough space in each station.

II. Question:

- Are there more MTA riders during certain days of the week? (School days vs. weekends?)
- Are there more MTA riders during certain hours of the day? (Rush hour vs. late night?)
- Do the number of train lines available at a subway station correlate to the number of MTA riders at that station?

III. Data Description:

In this analysis we use data from MTA Turnstile and we chose to focus on first half of 2020 after lifted many of its remaining safety COVID-19 restrictions.

Data files are produced weekly, data records are collected typically every 4 hours

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** = 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
- **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

	C/A	UNIT	SCP	STATION	LINENAME	DIVISION	DATE	TIME	DESC	ENTRIES	EXITS
0	A002	R051	02-00-00	59 ST	NQR456W	BMT	07/31/2021	00:00:00	REGULAR	7611181	2603110
1	A002	R051	02-00-00	59 ST	NQR456W	BMT	07/31/2021	04:00:00	REGULAR	7611192	2603113
2	A002	R051	02-00-00	59 ST	NQR456W	BMT	07/31/2021	08:00:00	REGULAR	7611197	2603126
3	A002	R051	02-00-00	59 ST	NQR456W	BMT	07/31/2021	12:00:00	REGULAR	7611235	2603178
4	A002	R051	02-00-00	59 ST	NQR456W	BMT	07/31/2021	16:00:00	REGULAR	7611357	2603211

IV.Tools:

Data:



Data Visualization:

