MTA Turnstiles DATASET

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9/9/2021

Outline

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Introduction

To reduce the effect and infection of the pandemic in the USA, it should increase the proportion of vaccine recipients. we use the MTA turnstile dataset to find the most three stations are more crowded in each of weekend and weekday for set up centers for the COVID-19 vaccine.

Dataset Description

FEATURE	DESCRIPTION	
C/A	Control Area	
UNIT	Remote Unit for a station	
SCP	Subunit Channel Position represents a specific address for a device	
STATION	The station names the device is located at.	
LINENAME	All train lines that can be boarded at this station	
DIVISION	The Line originally the station belonged to.	
DATE	The date	
TIME	The time for a scheduled audit event	
DESc	Represent the "REGULAR" scheduled audit event (Normally occurs every 4 hours)	
ENTRIES	The turnstile's counter. It's recorded 6 times a day in 4-hour blocks, and it's a running cumulative total.	
EXIST	The turnstile's counter. It's recorded 6 times a day in 4-hour blocks, and it's a running cumulative total.	

Derived Columns

FEATURE	DESCRIPTION
DATETIME	Derived DATETIME column from 'DATE' and 'TIME' columns
TOTAL_TRAFFIC	Add the TOTAL_ENTRIES and the TOTAL_EXITS columns to find the TOTAL_TRAFFIC.
Week_Day	To find the name of day using DATE column.
WEEKEND	To identify if the day is weekend or weekday using Week_Day column.
TOTAL_TRAFFIC_WEEKDAY	To find the total of traffic on weekday by using the TOTAL_TRAFFIC column.
TOTAL_TRAFFIC_WEEKEND	To find the total of traffic on weekend by using the TOTAL_TRAFFIC column.

Preprocessing

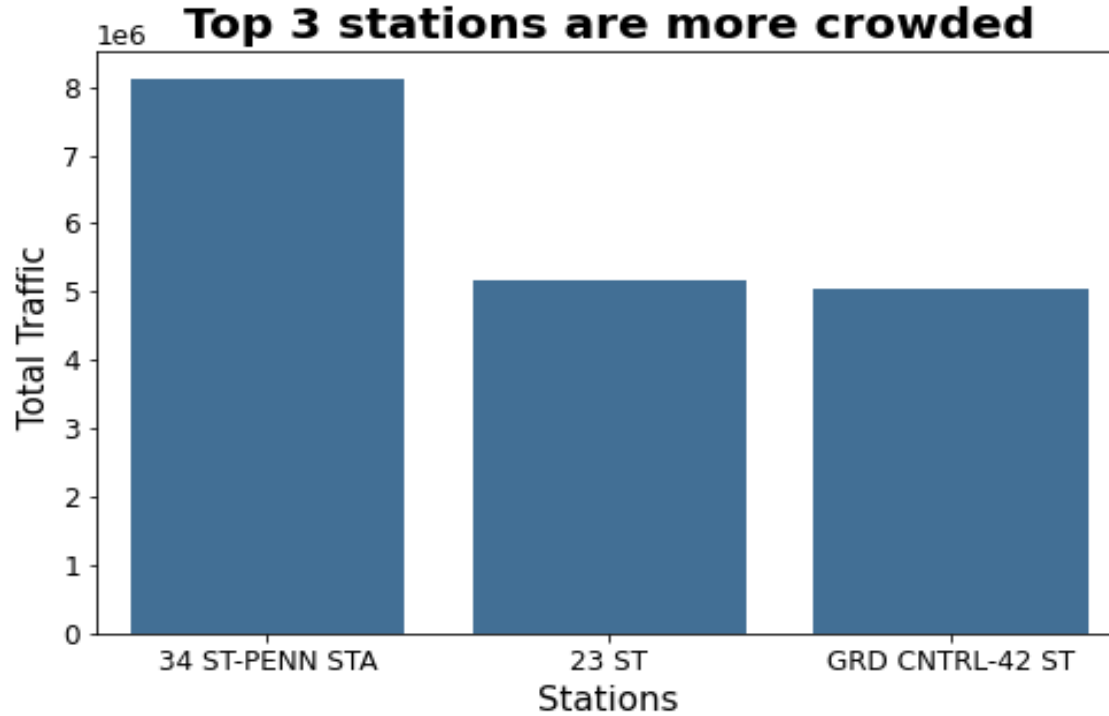**1**   Removing whitespace

2   Check if there are any missing values

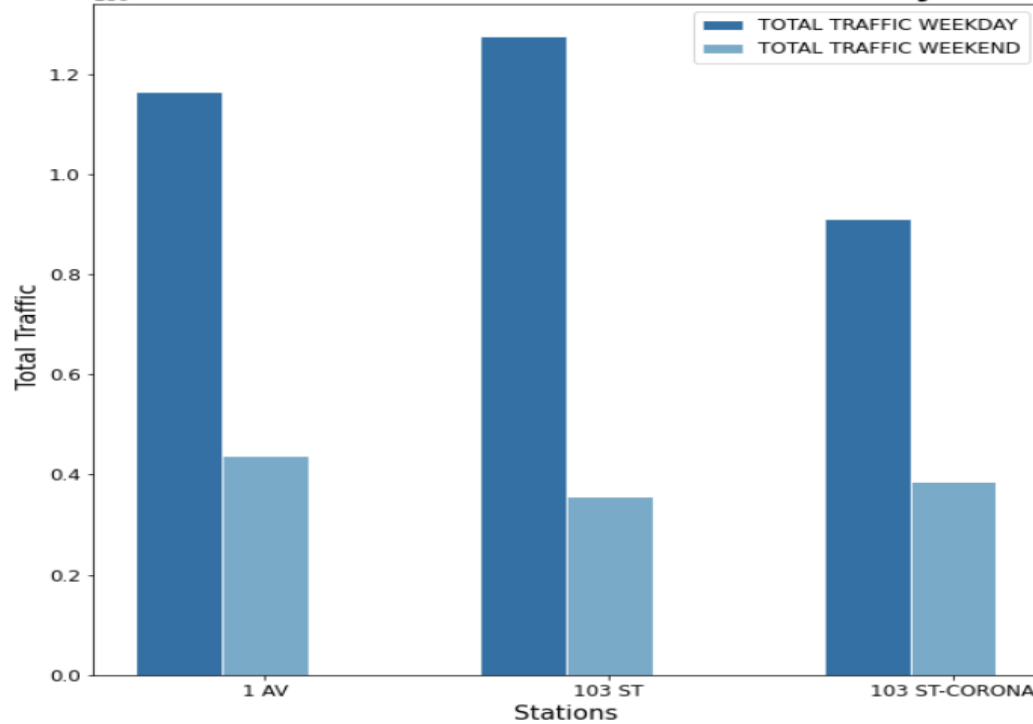**3**   Remove non-REGULAR values from DESC column

Results

Top 3 stations are more crowded

Results (cont.)

Top 3 stations are more crowded in each of weekday and weekend

Top 3 stations are more crowded in each of weekday and weekend

Conclusion

▶ AV, 103 ST and 103-STCORONA are most crowded.

▶ The stations are crowded on weekdays than weekends.

Thank you!