



# TOGO

## FOOD TRUCK LOCATOR

**SDAIA ACADEMY**

T5 Boot Camp

**EDA PROJECT  
PRESENTATION**

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**EDA module**

9 September 2021

# AGENDA

- Problem
- Data Collection
- Pre-Processing
- Feature Engineering
- Conclusion
- Challenges
- Reference

## PROBLEM

Telling the food truck owners a production about when, where and which station to go. to increase the sells.

## DATA DESCRIPTION

MTA Turnstile Data is a subway data from New York City (NYC) Metropolitan Transit Authority (MTA). Turnstile is a device that record the number of entries and number exits. The dataset has 11 features and 2722623 record.

## SCOPE

the scope of the project is time bounded between June and August at 2021. in total they are 3 month as suggested. all features are included in the EDA.

## Goal

- **Increase the sells of the food truck.**

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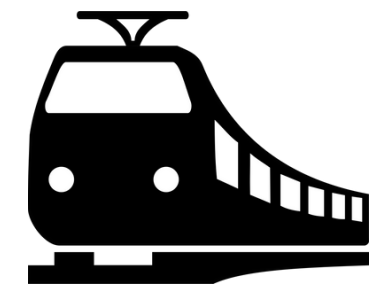
Let's THINK 🤔 !

## Goal

- **Increase the sells of the food truck.**



Let's **THINK** 🤔 !

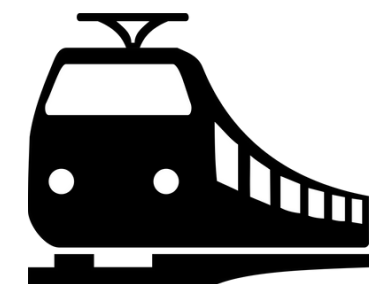


## Goal

- **Increase the sells of the food truck.**



Let's THINK !





## DIVISION DESCRIPTION

Each Division represents a subway system. in each system there are services provided by that kind of system.

Below links that will describe each system are listed:

- **SRT :**



## Assumption

- **less Traffic**





## DIVISION DESCRIPTION

Each Division represents a subway system. in each system there are services provided by that kind of system.  
Below links that will describe each system are listed:

- PTH :

## Assumption

- less Traffic





## DIVISION DESCRIPTION

Each Division represents a subway system. in each system there are services provided by that kind of system.  
Below links that will describe each system are listed:

- **IRT : A Division**

Station service legend <a href="#">[hide]</a>	
●	Stops all times
⦿	Stops all times except late nights
◐	Stops late nights only
◑	Stops weekdays only
◆	Stops rush hours only
◈	Stops rush hours in the peak direction only
<i>Time period details</i>	
♿	Station is compliant with the <a href="#">Americans with Disabilities Act</a>
♿ ↑	Station is compliant with the <a href="#">Americans with Disabilities Act</a>
♿ ↓	in the indicated direction only
🚶	Elevator access to mezzanine only

## Assumption

- **more Traffic**



## DIVISION DESCRIPTION

Each Division represents a subway system. in each system there are services provided by that kind of system. Below links that will describe each system are listed:

- **IND and BMT: B Division**

Station service legend <a href="#">[hide]</a>	
●	Stops all times
⦿	Stops all times except late nights
◐	Stops late nights only
◑	Stops weekdays only
◆	Stops rush hours only
◈	Stops rush hours in the peak direction only
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♿	Station is compliant with the <a href="#">Americans with Disabilities Act</a>
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♿ ↓	in the indicated direction only
🚶	Elevator access to mezzanine only

Services

## Assumption

- **more Traffic**





## DIVISION DESCRIPTION

Each Division represents a subway system. in each system there are services provided by that kind of system.

Below links that will describe each system are listed:

- **RIT :**



## Assumption

- **less Traffic**

## Data Collection

### IMPORTING CSVS INTO THE DATABASE

```
sqlite> .mode csv
```

```
sqlite> .import ../turnstile_210605.csv Turnstiles
```

	C_A	UNIT	SCP	STATION	LINENAME	DIVISION	DATE	TIME	DESC	ENTRIES	EXITS
→ 0	C/A	UNIT	SCP	STATION	LINENAME	DIVISION	DATE	TIME	DESC	ENTRIES	EXITS ...
1	A002	R051	02-00-00	59 ST	NQR456W	BMT	08/07/2021	00:00:00	REGULAR	0007614946	0002604740 ...
2	A002	R051	02-00-00	59 ST	NQR456W	BMT	08/07/2021	04:00:00	REGULAR	0007614956	0002604740 ...
3	A002	R051	02-00-00	59 ST	NQR456W	BMT	08/07/2021	08:00:00	REGULAR	0007614964	0002604758 ...
4	A002	R051	02-00-00	59 ST	NQR456W	BMT	08/07/2021	12:00:00	REGULAR	0007615017	0002604803 ...

## Pre-Processing

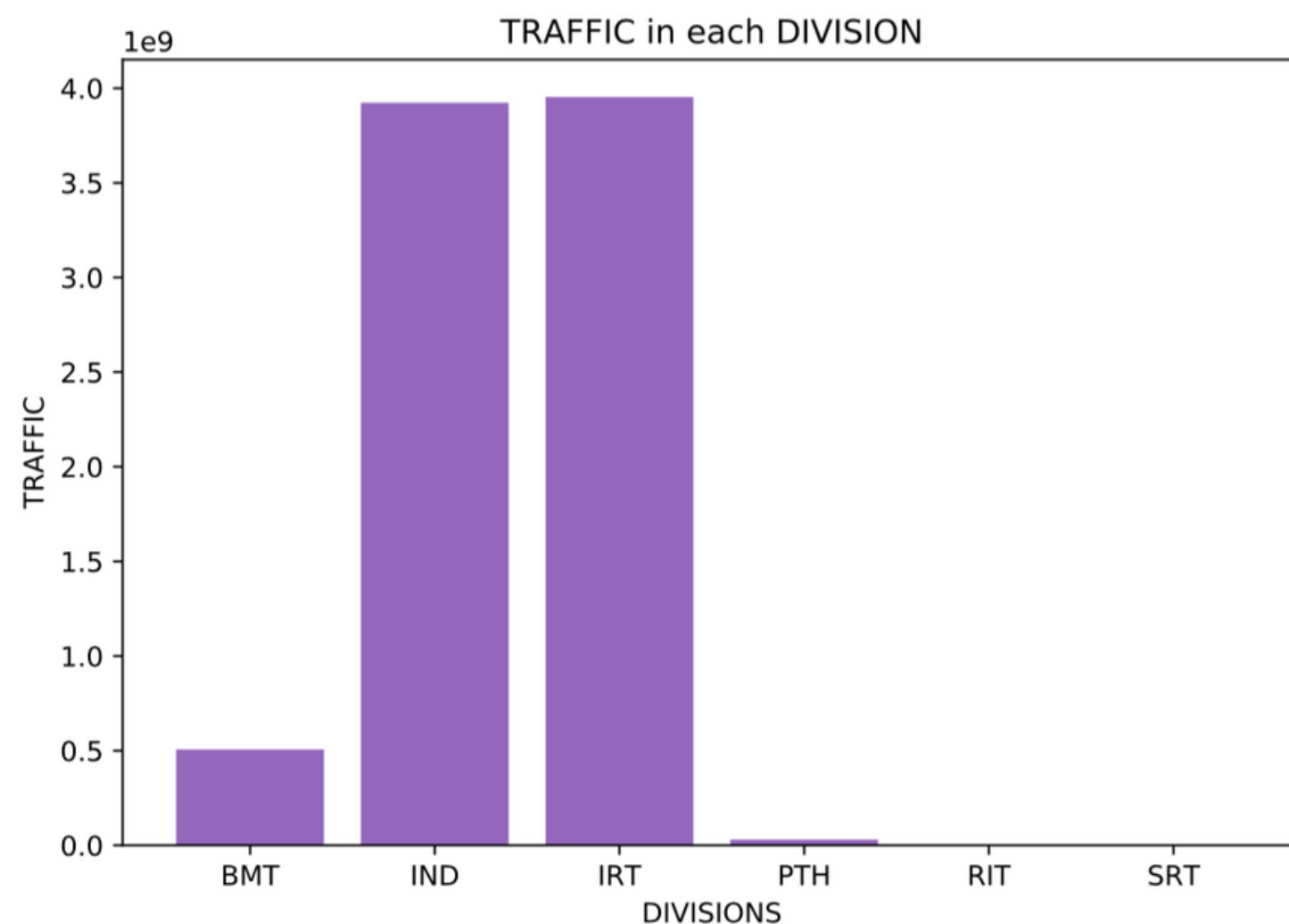
- **Remove non-regular Descriptions**
- **Handle Duplicate**
- **Handle Outlier**
- **Parse needed Text columns into numeric**

## Feature Engineering

- **New Columns Generated:**
  - **DATE\_TIME**
  - **TRAFFIC**
  - **Turnstiles\_Name**

## Feature Engineering

- **New Columns Generated:**
  - **TRAFFIC**



### INSIGHT

since I took June till August and they are not holidays season, so RIT Division has less traffic around all three months. no surprise that the A Division and B Divisions are much more crowded.



## Conclusion

- **we can give the food truck owner the best location based on the system (Division) used in the nearest station.**
- **TOGO food truck can increase its sells strongly in the locations with (IND & IRT) divisions.**

## Challenges

- **Unclearness in the Dataset.**
- **Time limitation.**
- **Resource limitation.**

## Reference

- **A and B Division** [https://metro.fandom.com/wiki/List\\_of\\_New\\_York\\_City\\_Subway\\_inter-division\\_connections](https://metro.fandom.com/wiki/List_of_New_York_City_Subway_inter-division_connections)
- **SRT** : [https://en.wikipedia.org/wiki/Staten\\_Island\\_Railway](https://en.wikipedia.org/wiki/Staten_Island_Railway)
- **PTH** : [https://en.wikipedia.org/wiki/23rd\\_Street\\_station\\_\(PATH\)](https://en.wikipedia.org/wiki/23rd_Street_station_(PATH))
- **IND and BMT**: [https://en.wikipedia.org/wiki/B\\_Division\\_\(New\\_York\\_City\\_Subway\)](https://en.wikipedia.org/wiki/B_Division_(New_York_City_Subway))
- **IRT** : [https://en.wikipedia.org/wiki/A\\_Division\\_\(New\\_York\\_City\\_Subway\)](https://en.wikipedia.org/wiki/A_Division_(New_York_City_Subway))
- **RIT** : <https://freetoursbyfoot.com/roosevelt-island-tramway/>

**THANK YOU FOR LISTENING**

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