

# NYC MTA Subway Exploratory Data Analysis



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Sep 2023

# Agenda

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- Introduction
- Methodology
- Results
- Conclusion
- Future Things to Do
- Appendix



# Introduction

## Scope

Women Tech Women Yes (WTWY) is organizing an event to make increase women in the tech field. For this purpose, WTWY's teams are reaching out people around tube station to get their email addresses. They asked to the best location and time for the task foe 2024

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## Solution offer

Using MTA turnstile data from February 2022 until 2023 to locate the peak and busiest month to beginning of summer.

By using this data, try to identify the best time slots and top ten subway stations.

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## Objectives

The busiest month of the year – Best month before beginning of summer

Busiest days and times for that Month

Busiest locations for the field teams.



# Methodology



MTA Subway Hourly  
Ridership: Beginning  
February 2022



  
pandas

 NumPy

matplotlib



Folium



seaborn

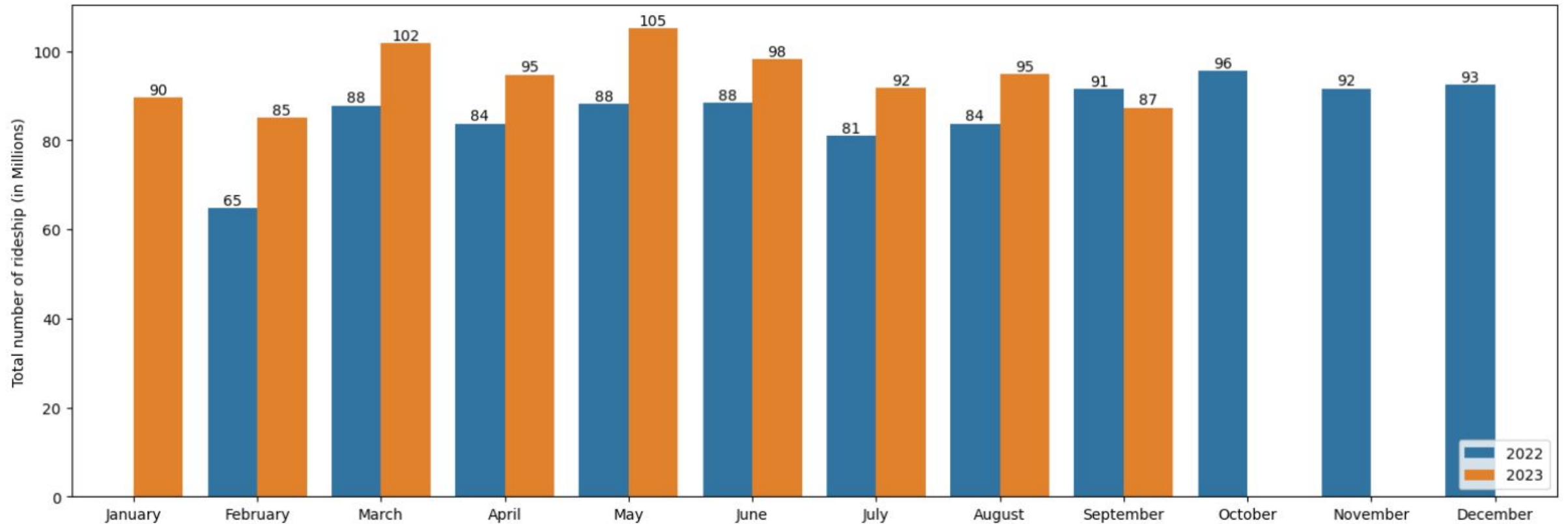


kaggle

Google Colaboratory



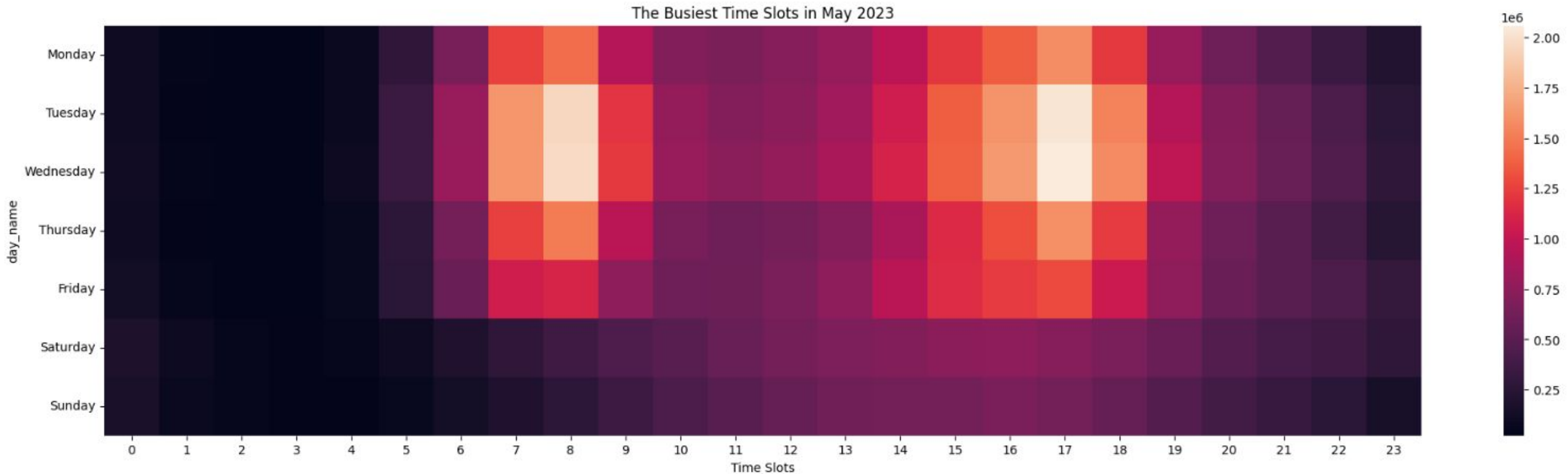
# Results



- Monthly ridership numbers are picking up in 2023 compared 2022.
- May is tent to be the busiest month in both 2022 and 2023.

Let's focus on May 2023...

# Results

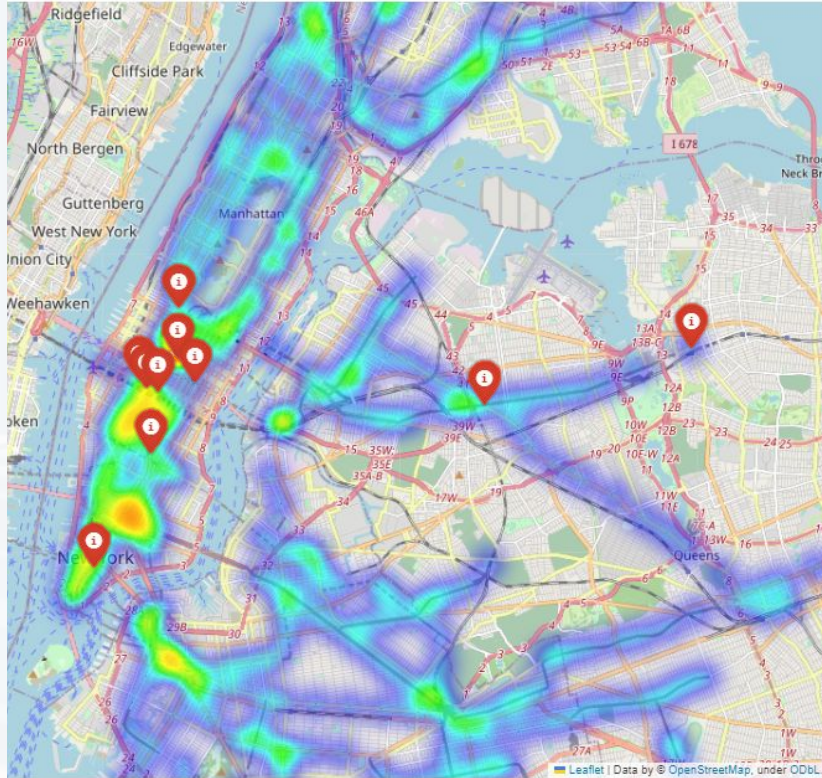


- The brighter cells represent the busiest time slots during the week.
- Work from home is a part of life now. As you can see Tuesdays and Wednesdays are busier compared to the other weekdays.
  - **Most Likely Working From Office Days** - Tuesday / Wednesday
  - **Most Likely Working From Home Days** - Monday / Thursday / Friday

Let's focus on WFO days and between 16.00 – 18.00.

**! Advice : Tuesday or Wednesday after work hours would be the best options for the event . Any other day is highly likely to decrease the event attendance.**

# Results



	Top Ten Location
1	Times Sq-42 St
2	Grand Central-42 St
3	34 St-Herald Sq
4	14 St-Union Sq
5	Fulton
6	34 St-Penn Station
7	59 St-Columbus Circle
8	34 St-Penn Station
9	Flushing-Main St
10	74-Broadway

	Day	Ridership
1	17	192578
2	3	187945
3	31	183590
4	24	183581
5	10	181639
6	16	181560
7	2	180190
8	23	178867
9	9	177214
10	30	171919

When and Where → 17th (Wed) of May 2024 between 16.00 and 18.00 at Times Square

## Further Things Consider

- Demographic data analysis to pick best location for the targeted audience.
- May 2024 events around times square
- Looker Dashboard for EDA