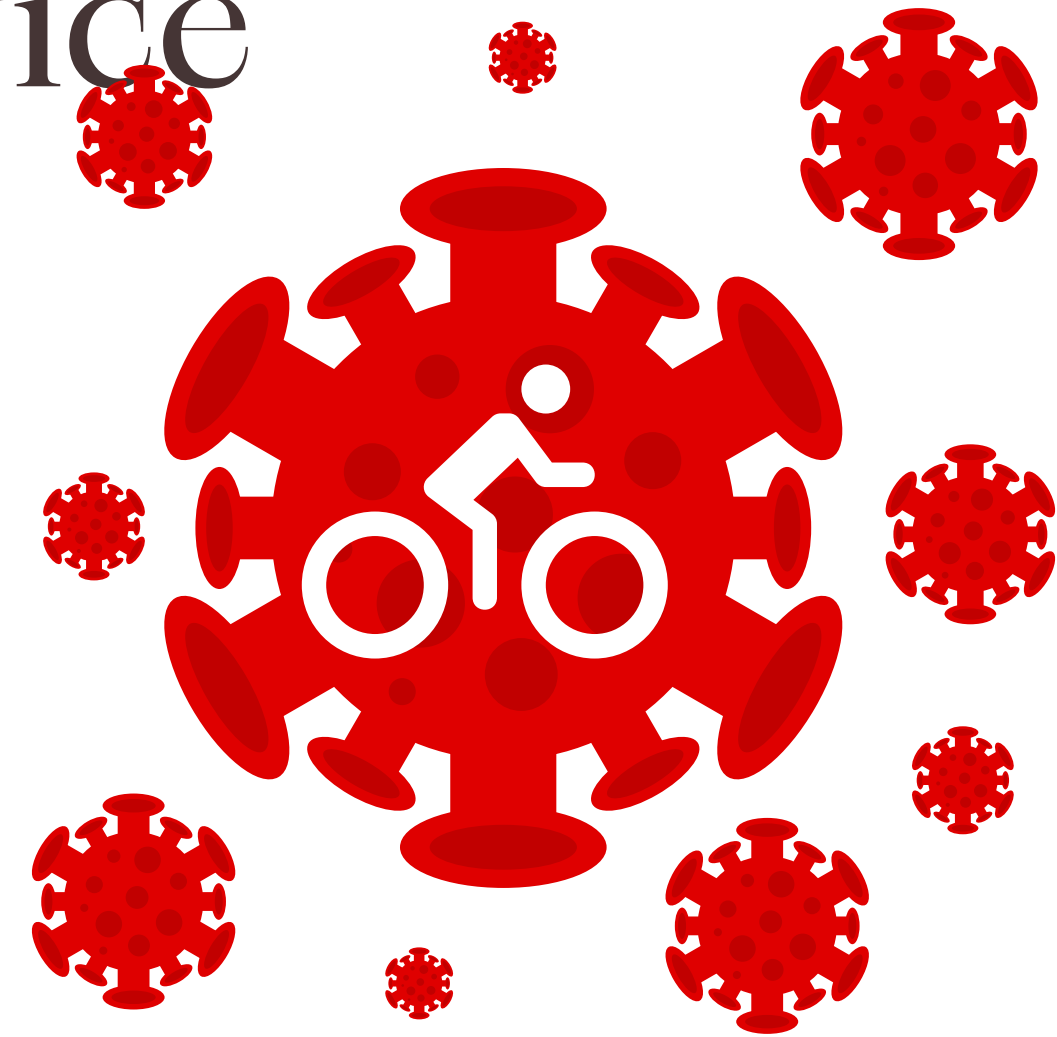




The Impact of COVID-19 on Capital Bike Share Service *A Data Analysis*



Agenda

- 1 About Dataset

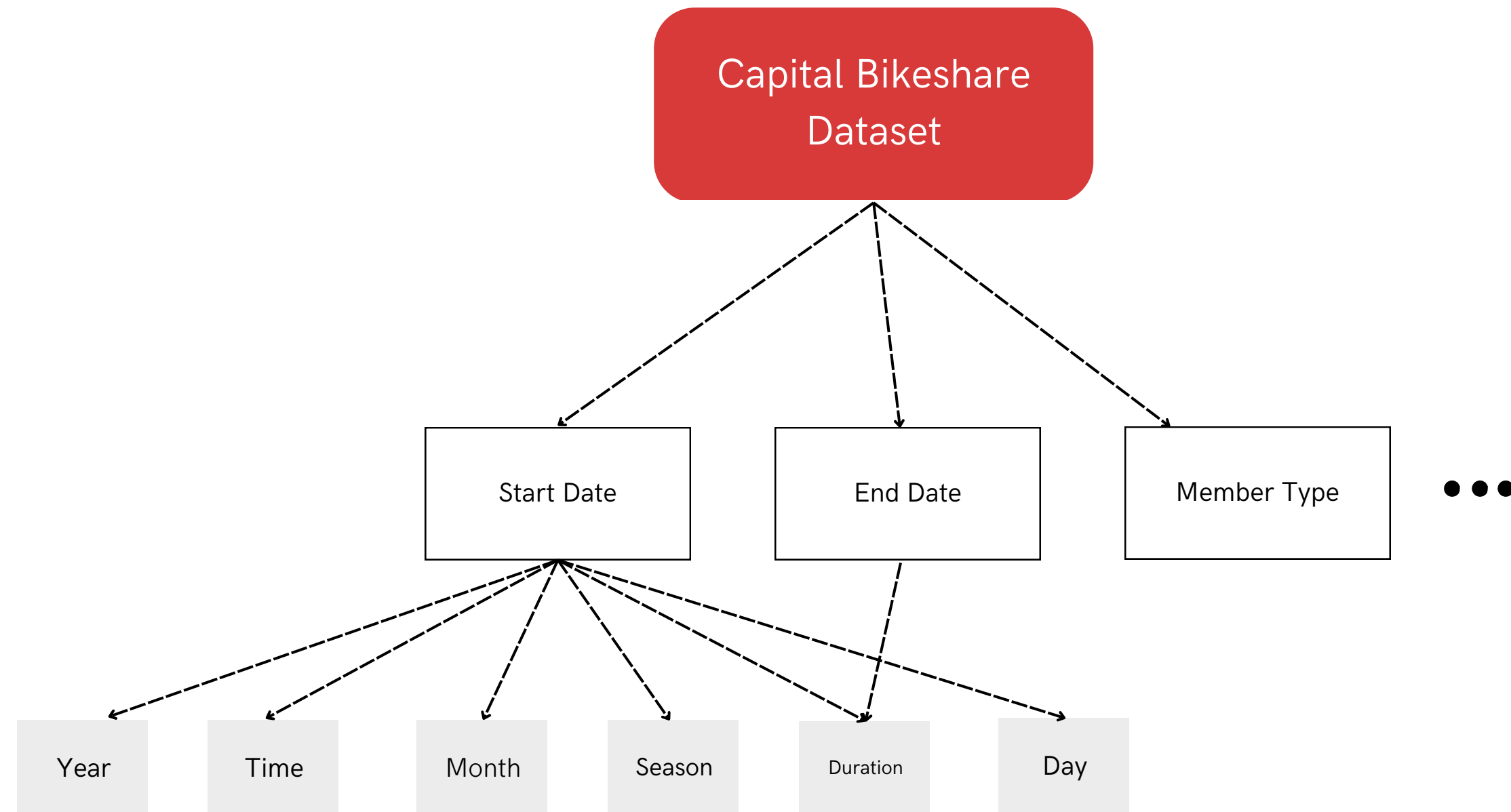
- 2 Findings and Observations

- 3 Summary



2010 to 2023

About Dataset



About Dataset



YEARS SELECTED

2018 to 2022

ROWS & COLUMNS

15384678, 11

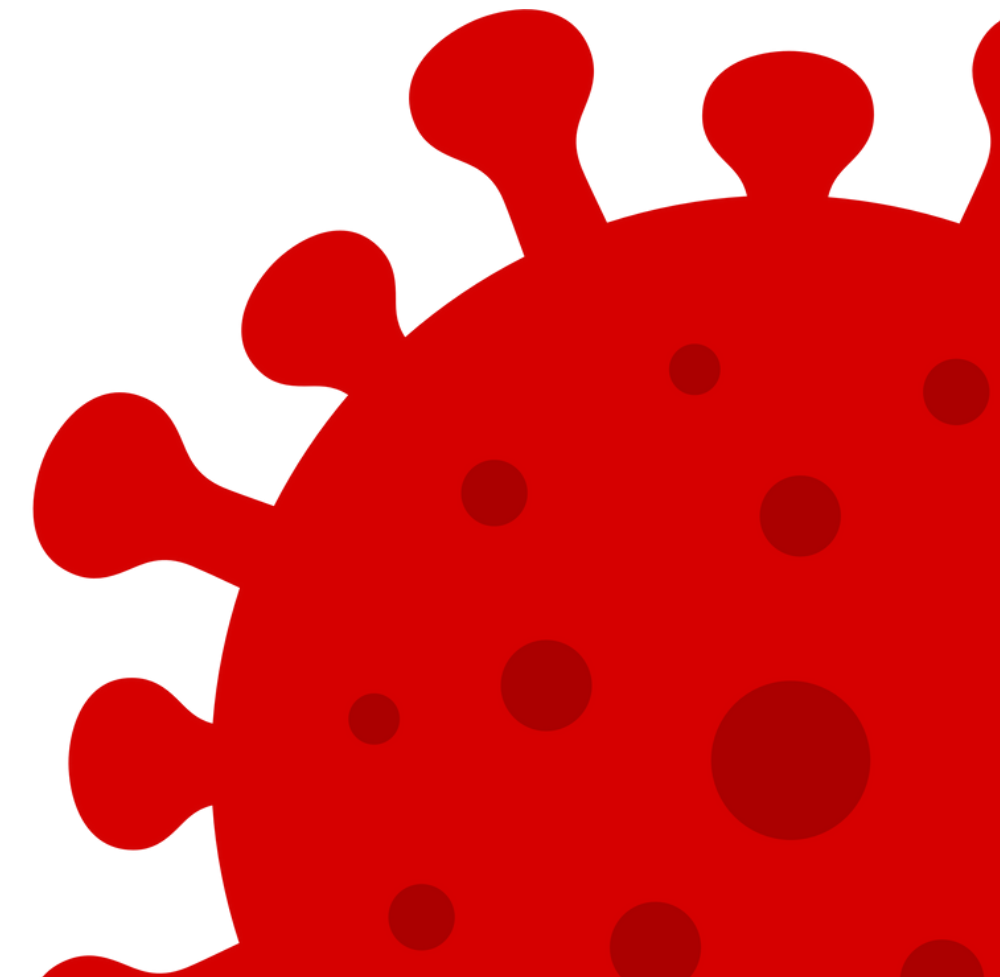
MISSING VALUES

Yes

DUPLICATED VALUES

Yes, 42195

The effect of Covid 19 on Bikeshare Service



Periods



BEFORE PANDEMIC

2018 and 2019



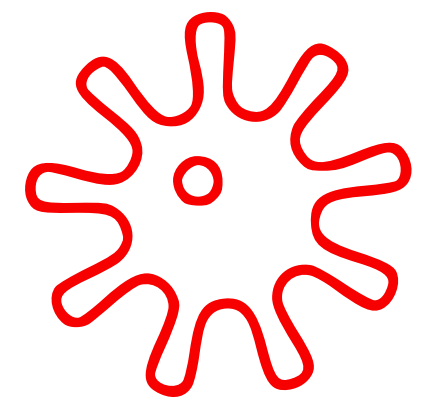
DURING PANDEMIC

2020 and 2021

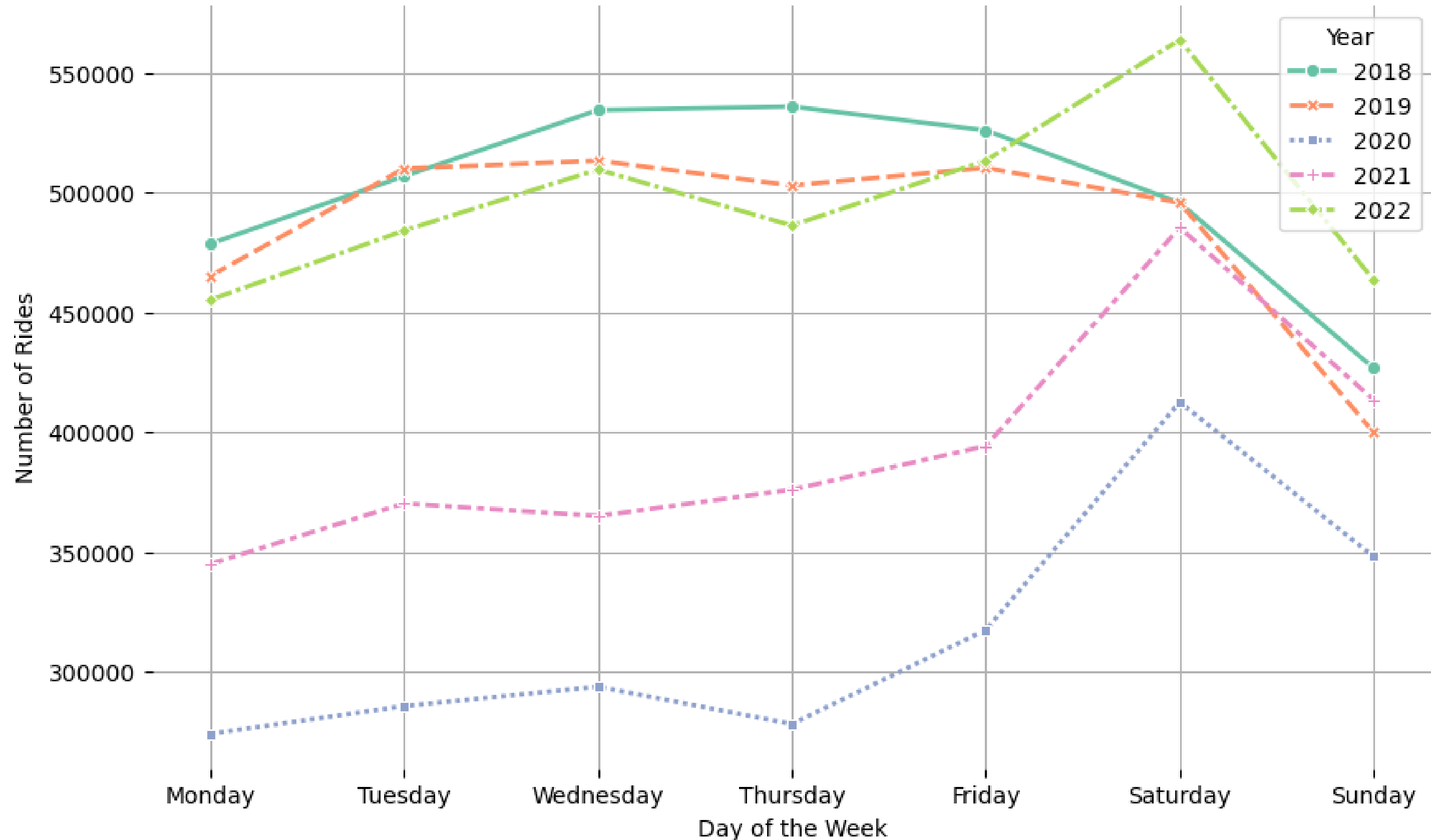


AFTER PANDEMIC

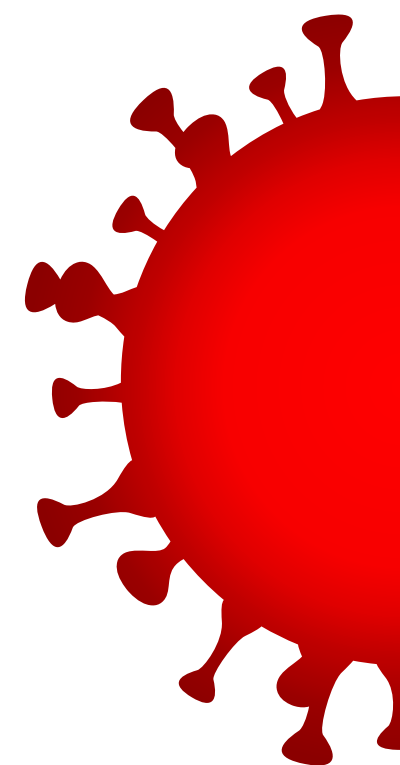
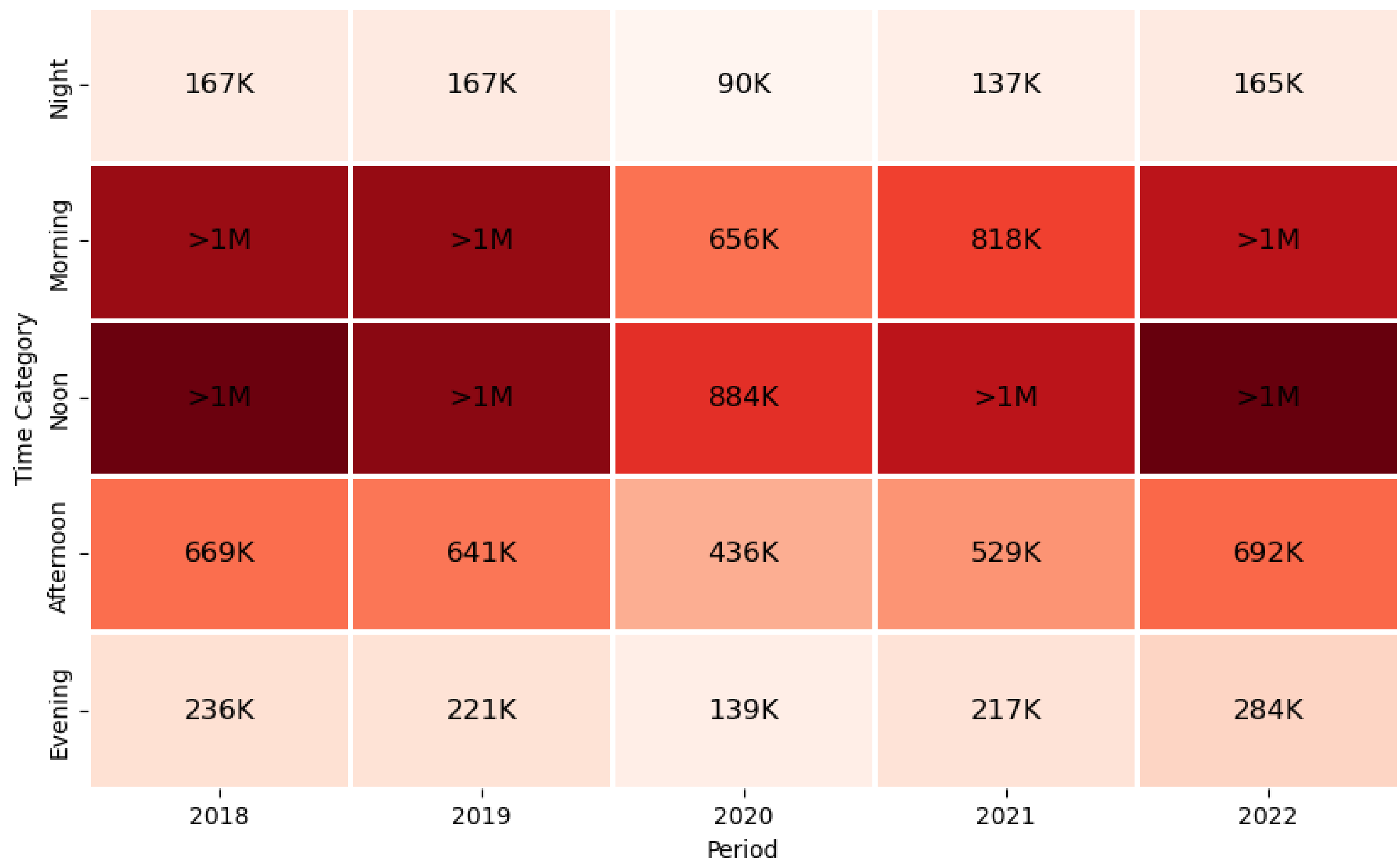
2022

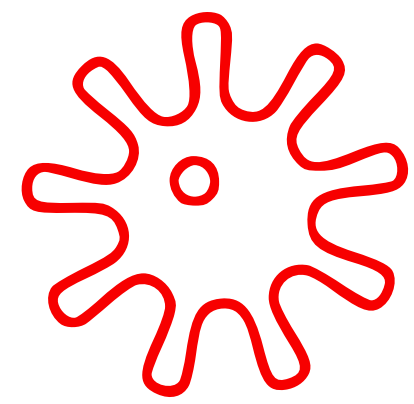


To Observe the Daily Changes

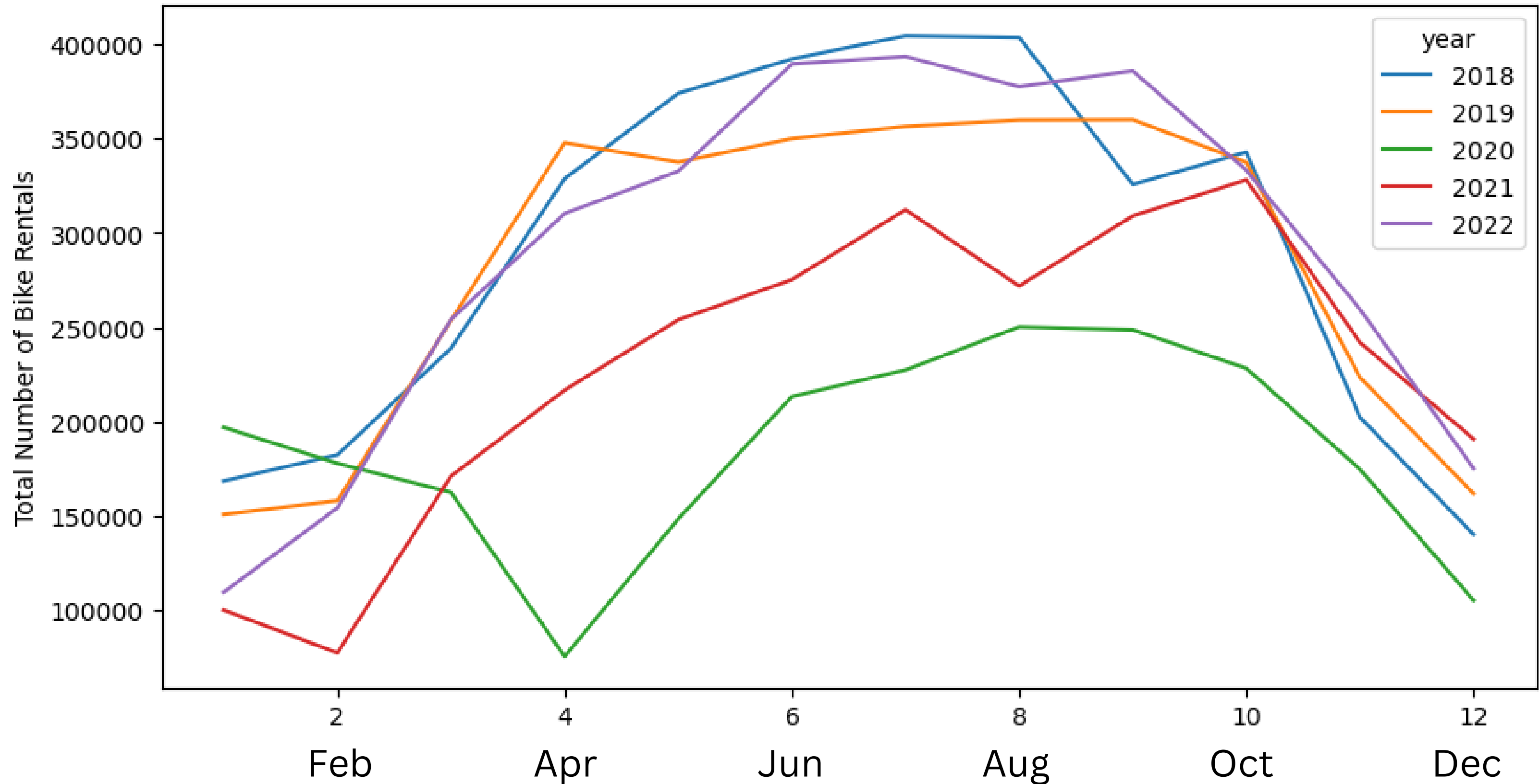


To Observe the Changes in Hourly Trends by Time Category



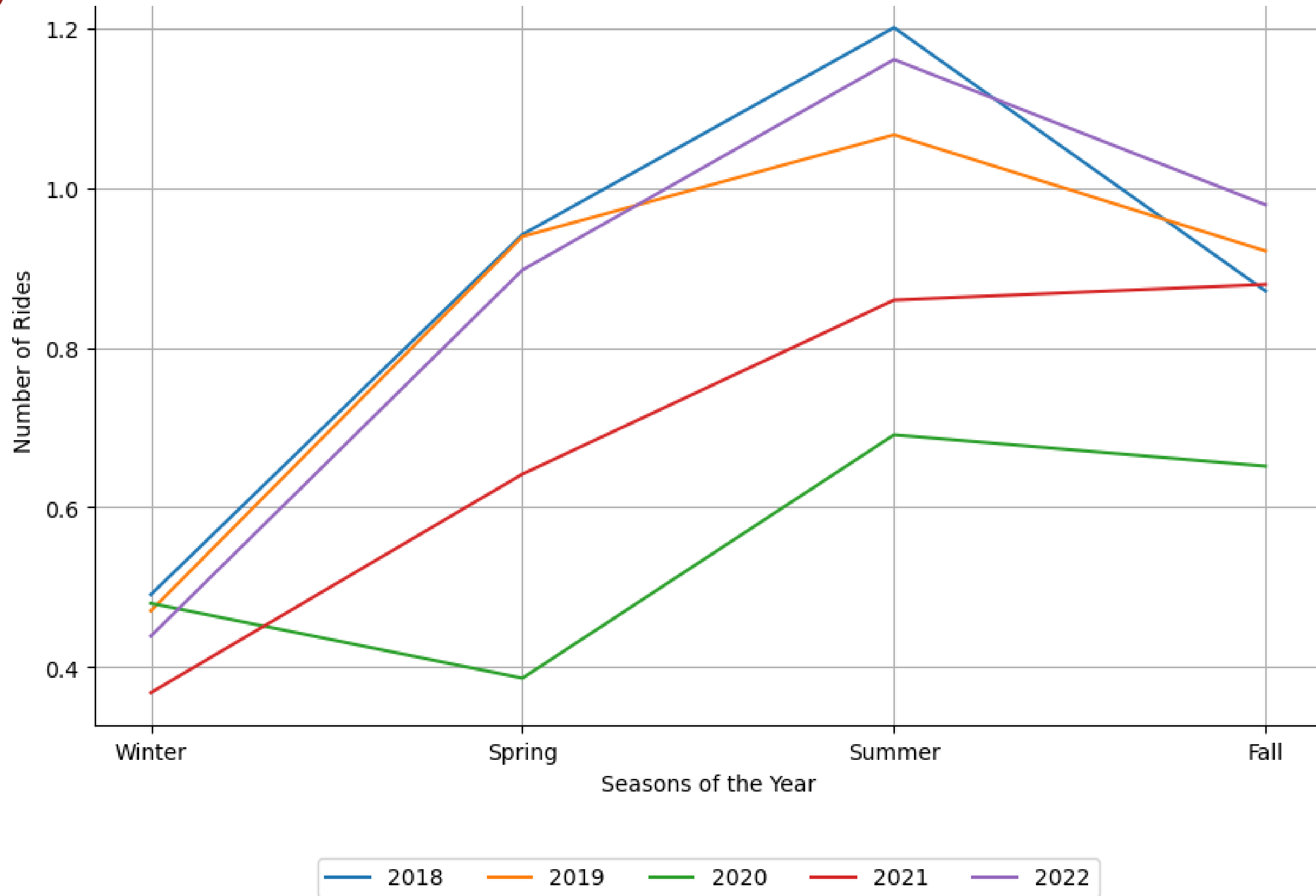


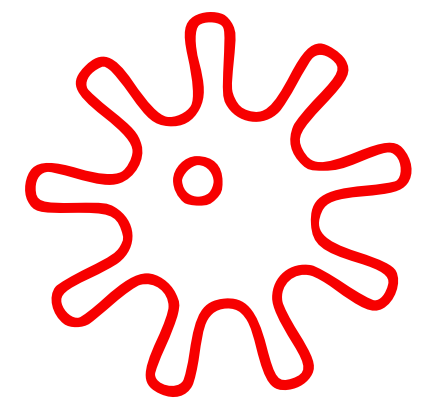
To Observe the Changes in Monthly Trends



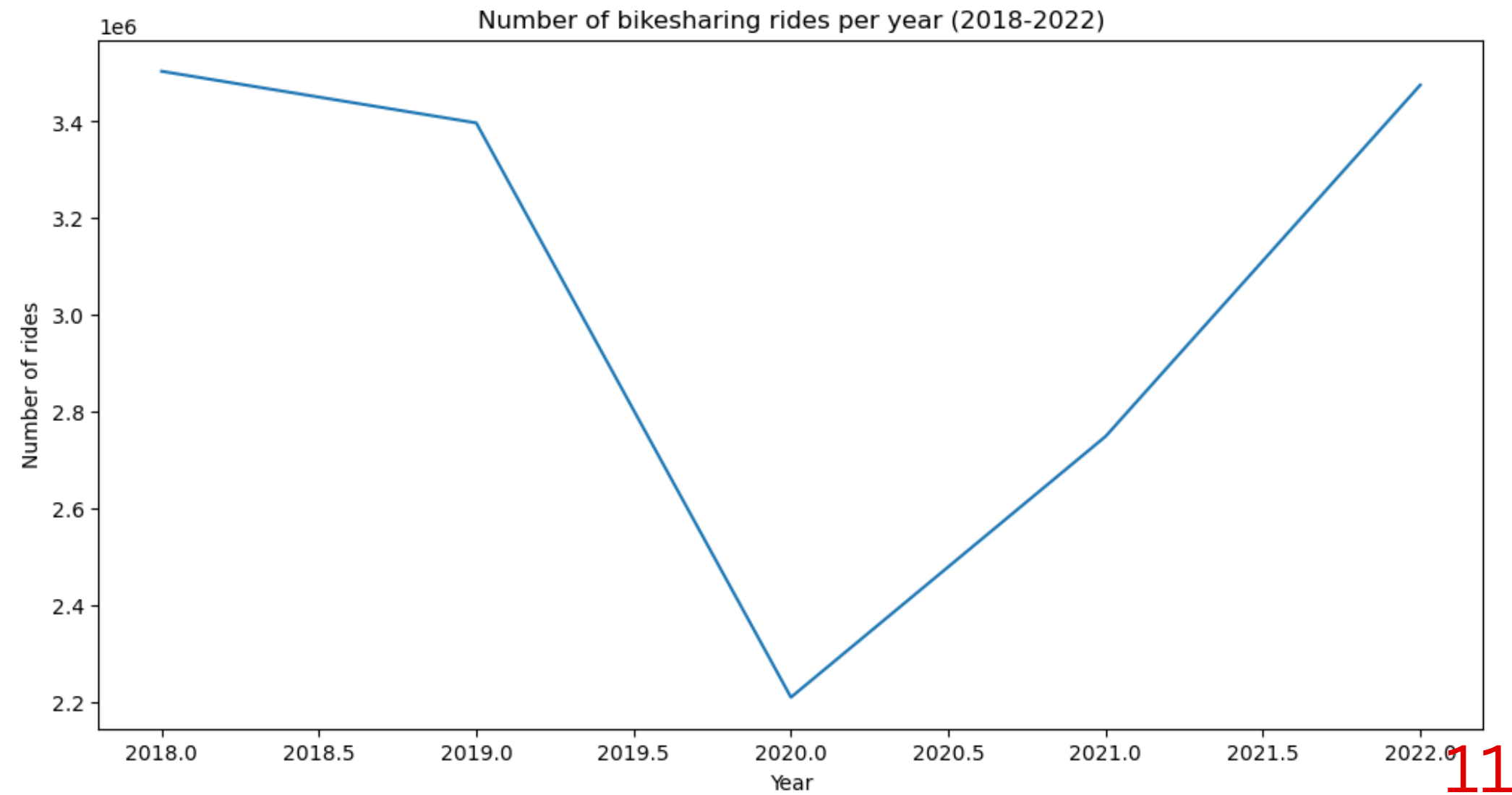
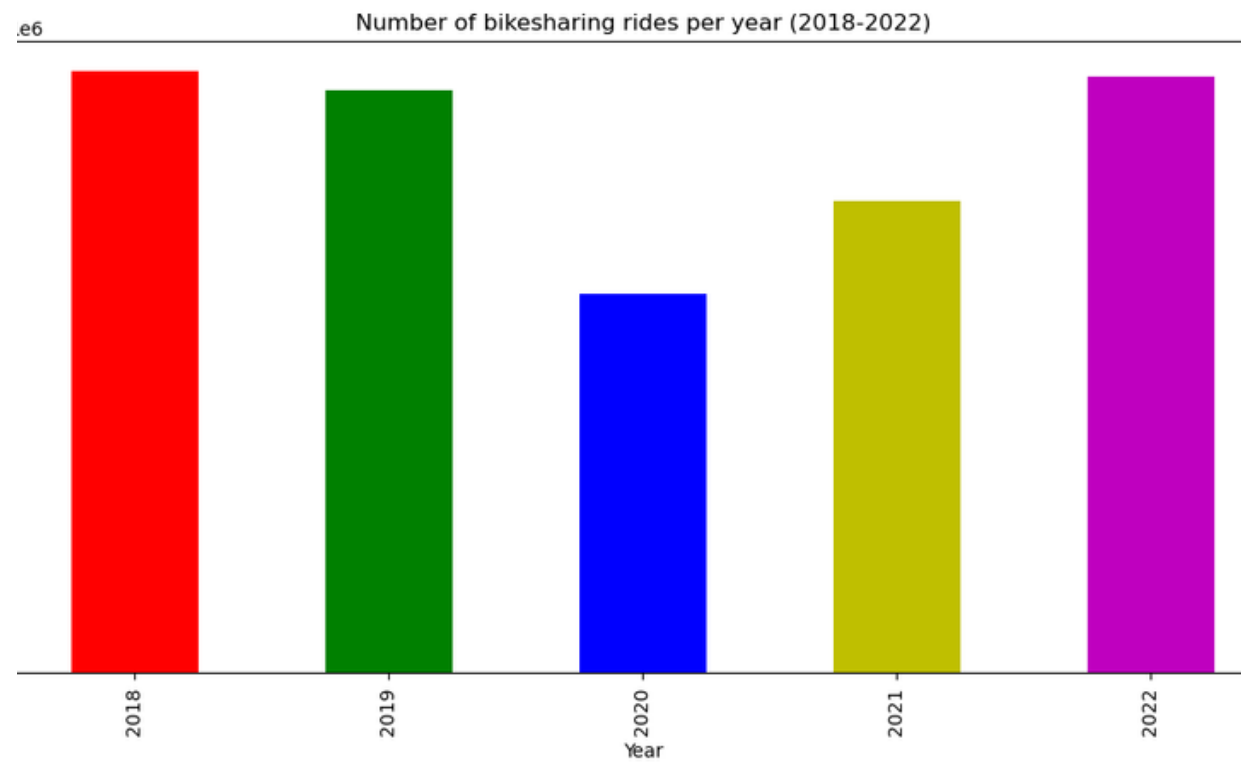


To Observe Seasonal effects

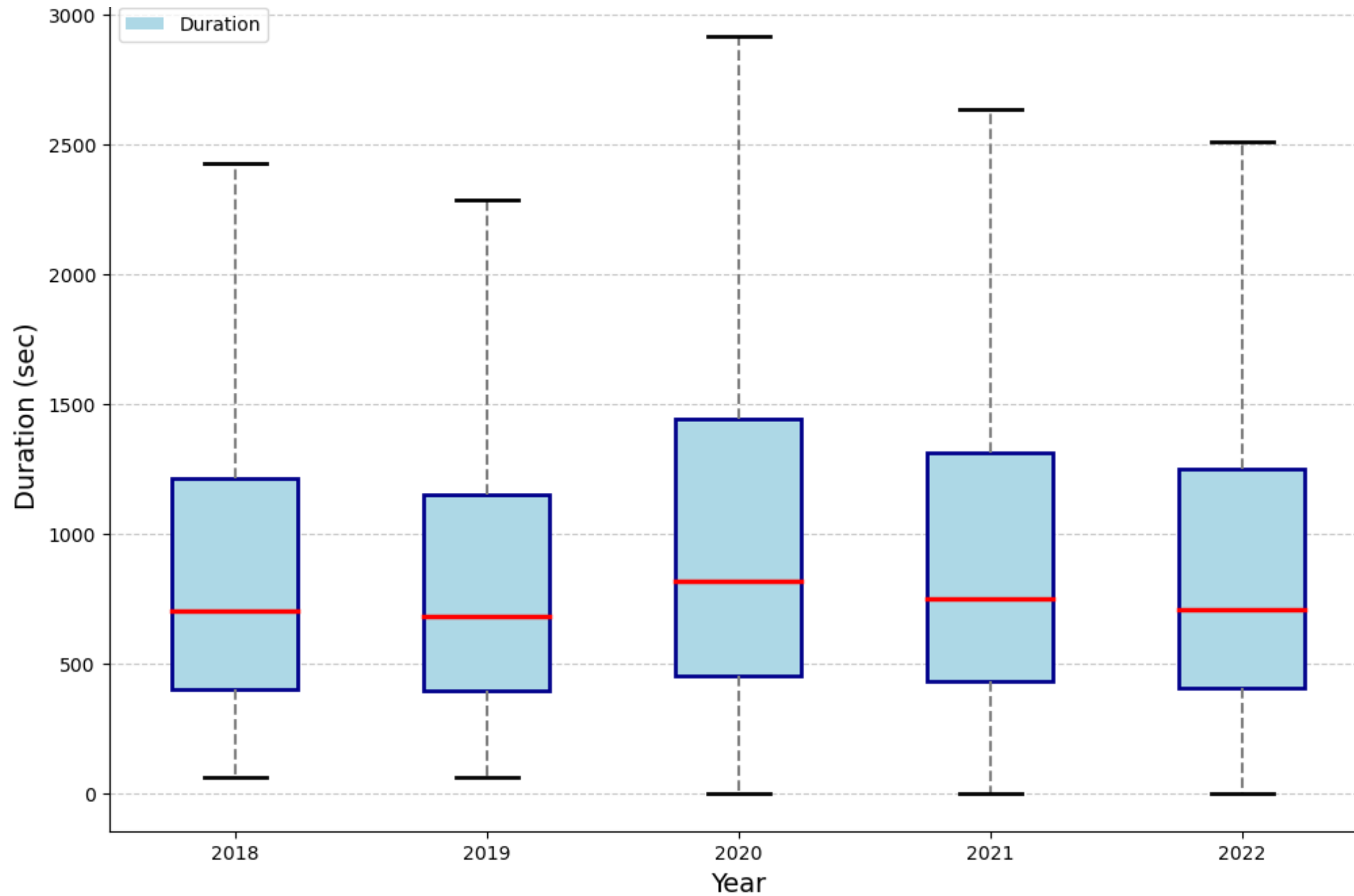


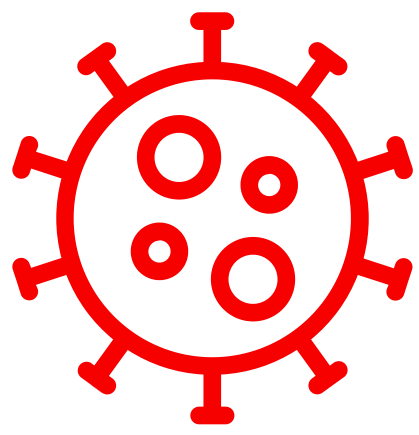


To Observe the Changes in Yearly Trends



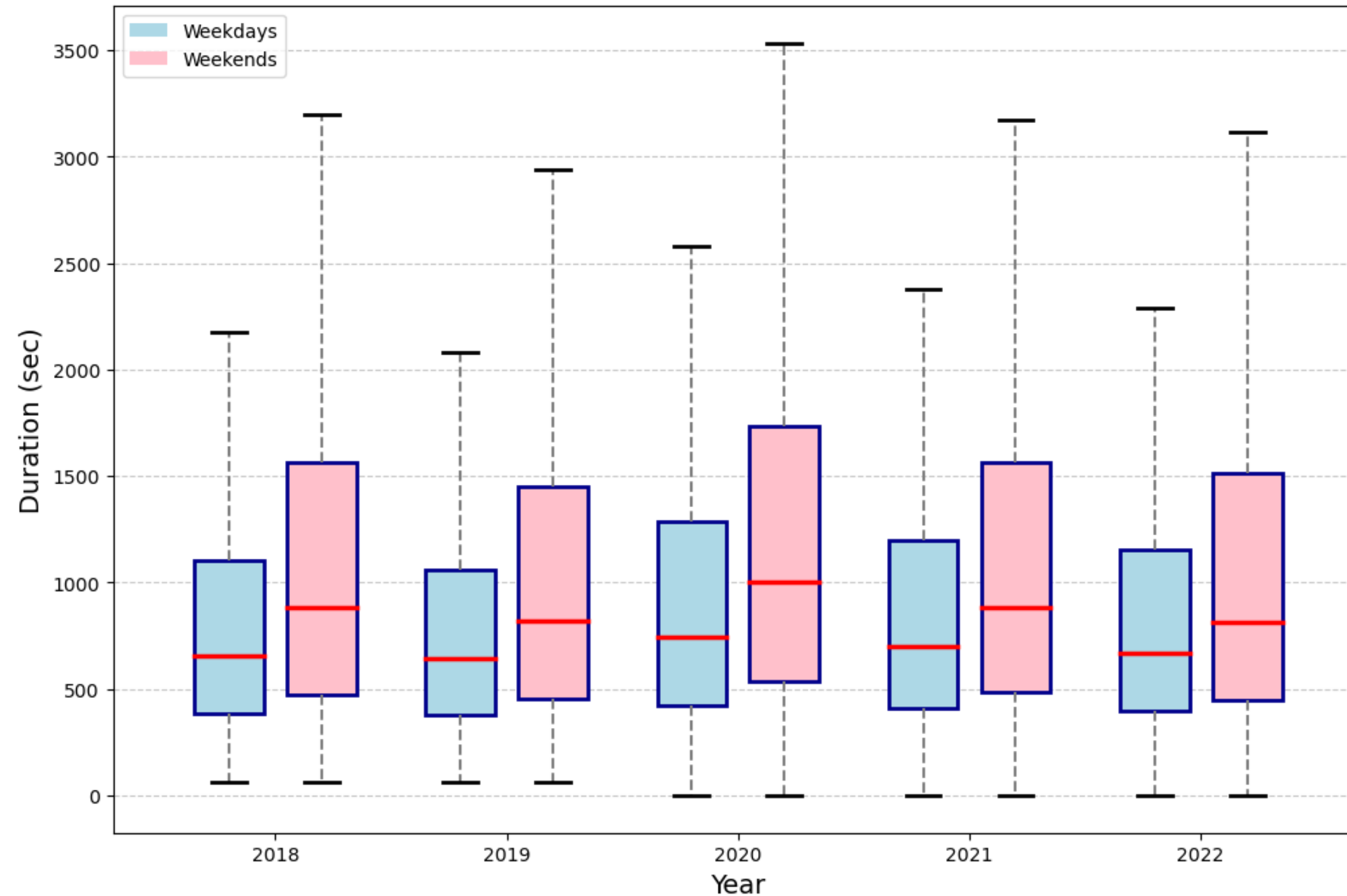
Distribution of Bike ride Durations

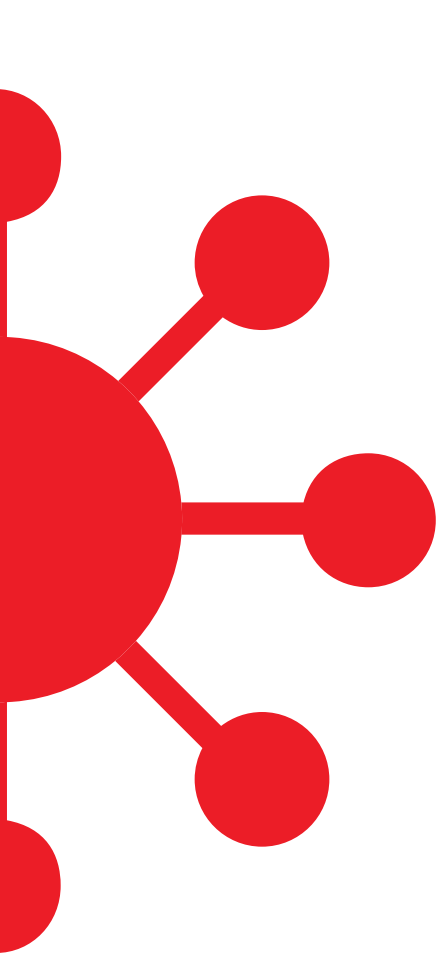




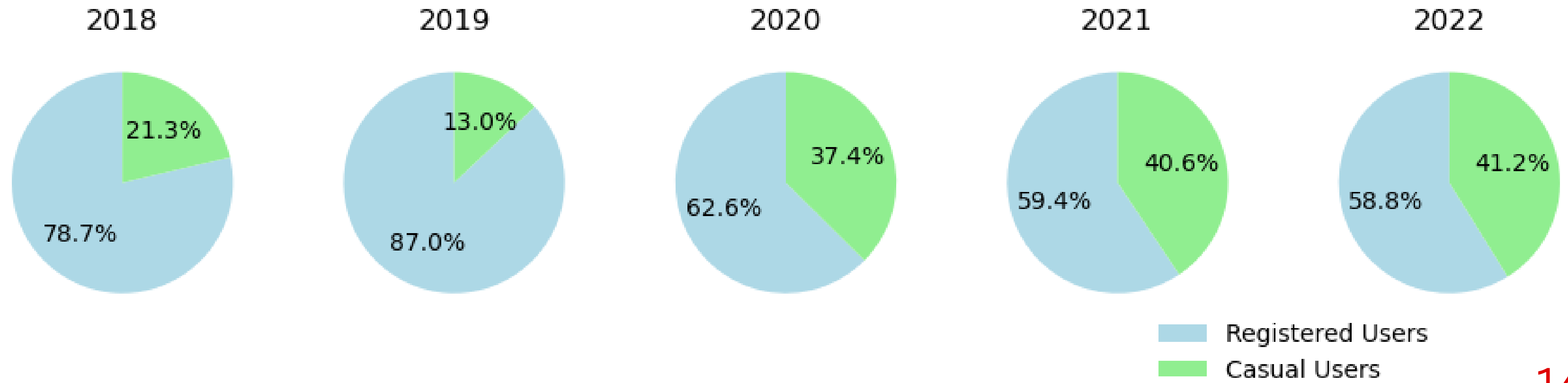
Distribution of Bike ride Durations

in each Year by Day type

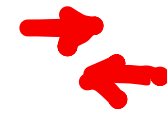




To Observe Changes in the Proportion of Member Types



Summary



SHIFTED USAGE PATTERN

from weekdays to weekends



NEGATIVE IMPACT

2020 and 2021, the lowest demand



POSITIVE IMPACT

increase in duration and number of casual members



NO IMPACT

on hourly time categories

References

1 <https://capitalbikeshare.com/>

2 <https://www.cdc.gov/coronavirus/2019-nCoV/index.html>

3 https://en.wikipedia.org/wiki/COVID-19_pandemic_in_Washington,_D.C.

THANK YOU

