Capstone Project:

Dataset Name - Vehicle Collision

Vehicle Collision Analysis is based on below given aspects:

The vehicle collision database includes the date and time, location (as borough, street names, zip code and latitude and longitude coordinates), injuries and fatalities, vehicle number and types, and related factors for all 10065 collisions in New York City.

DATA CLEANING AND IMPORTING process involves in several steps to ensure that the data is accurate, complete, and reliable for my dataset analysis. Python was the cleaning tool I have been used various libraries and other methods of the python.

Insights

- Total no of collisions caused in NYC are mainly categorized into 5 Borough given in the below:

1) Brooklyn = 2327
2) Queens = 1670
3) Bronx = 1216
4) Manhattan = 1149
5) Staten island = 239

- Max no of factors for collisions caused “Boroughs of NYC” are given in the below:

1) 9 persons were injured in “Bronx” and “Queens”
2) 2 persons were killed in “Bronx”
3) 3 pedestrians were injured in “Manhattan”

4) 1 pedestrian were killed in “Brooklyn” and “Manhattan”
5) 2 cyclists were injured in “Brooklyn”
6) 1 cyclist were killed in “Manhattan”
7) 9 motorists were injured in “Queens” and “Bronx”
8) 2 motorists were killed in “Bronx”

- The main “Contributing factor” for massive vehicle collision is

  Alcohol Involvement

- The Large scale of vehicle collision is caused because of Vehicle type

  “Station Wagon/Sport Utility Vehicle”

- The massive vehicle collision is mainly lead in annual cycle of

  “2022”

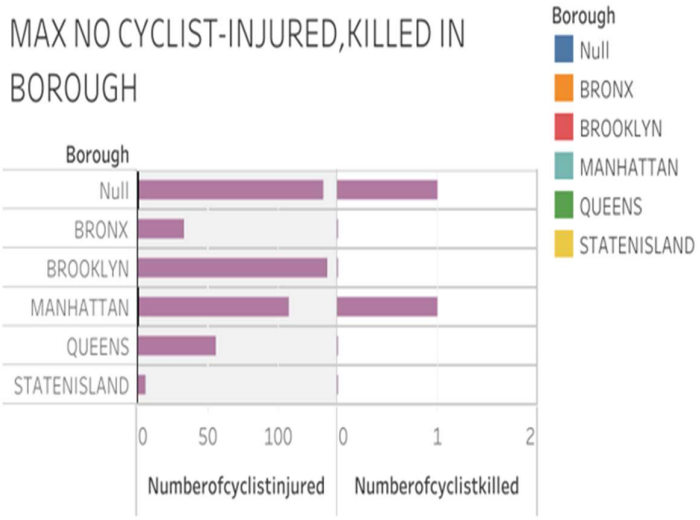
INSIGHTS drawn from “DATA VISUALIZATION “with the tool named tableau:

- DASHBOARD PRESENTATION

  https://public.tableau.com/newWorkbook/cc02eee4-2918-4b80-ad88-9095047c65a6#1

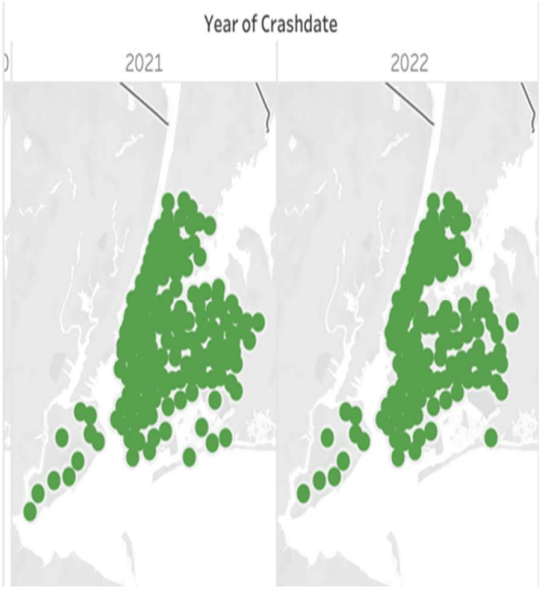
MAX NO OF PEDESTRIANTA KILLRD,INJURED-BOROUGH

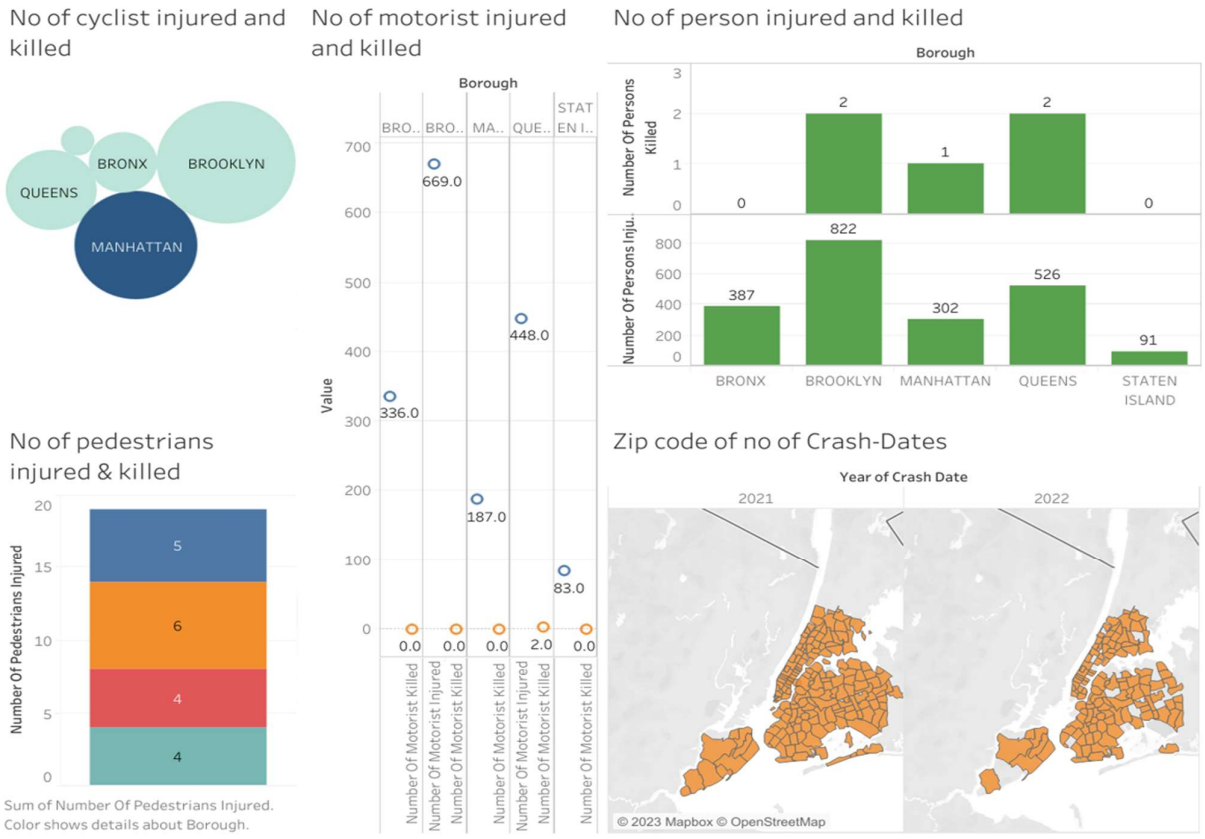
MAX NO CYCLIST-INJURED,KILLED IN BOROUGH



ZIP CODE OF VEHICLE COLLISION

MAX YEAR OF VEHICLE COLLISION





https://public.tableau.com/authoring/CAPSTONEPROJECT_16925990079710/Dashboard1#1

Conclusions

Based on this attributes of collisions are mainly caused because of contributing factor alcohol involved The report indicates that alcohol was a contributing factor to the collision. This suggests

that the consumption of alcohol likely impaired one or more individuals involved, leading to the accident. It highlights the importance of avoiding alcohol consumption when operating vehicles to prevent such incidents in the future.

This report also suggests that the type of vehicle involved in the collision was a station wagon. This information could imply that the characteristics of the station wagon, such as its size, weight distribution, and handling, might have influenced the outcome of the collision. Further analysis would be needed to determine how the specific features of the station wagon contributed to the accident and whether any modifications or precautions could help mitigate such incidents in the future.

Also most of the collision are primarily occurred in The "BROOKLY" borough. This geographical detail could imply that factors unique to that area, such as road conditions, traffic patterns, or local regulations, may have played a role in the collision. Further investigation could help identify any localized issues that contributed to the accident and guide efforts to improve safety measures in that specific area. And Most of the massive injuries were large occurred in Bronx borough.