**NYC Bikesharing Analysis**

**Overview**

In this module, we are analyzing the bikeshare data from CitiBike in New York City and creating a new Story using visualizations that will support our key findings to present to investors.

After analyzing our data, we should be able to present:

* The length of time that bikes are checked out for all riders and genders.
* The number of bike trips for all riders and genders for each hour of each day of the week.
* The number of bike trips for each type of user and gender for each day of the week.

**Results**

The total number of trips in the bikeshare data for New York City is 2,344,224.

Graphical user interface, application

Description automatically generated

In our first visualization, we were able to generate the Checkout time for all users. Based on the image below, it appears bike rental peaks at 5minutes with a total of 146,752 bikes rented.

Graphical user interface

Description automatically generated

The second visualization is for Checkout Times by Gender and in the image below, we discovered that out of the 146,752 bikes rented, 108,087 were rented by males, 33,041 was rented by females and 5,642 bikes were rented out to unknown gender. The unknown could be a result of people not specifying their gender when renting the equipment.

Graphical user interface, chart

Description automatically generated

In the image below, we can conclude that most weekday bike rides are mostly around 5p.m. and 7p.m. and mostly rented out to male riders.

Graphical user interface

Description automatically generated with low confidenceGraphical user interface, application, PowerPoint

Description automatically generated

The user trips by gender by Weekday Heatmap below shows that Male riders are the main subscribers unlike female riders and unknown. Male riders truly dominated and are more likely to subscribe to ride bikes than female riders.

Table

Description automatically generated with medium confidence

**Summary**

Based on our analysis of the Bikeshare data, we can conclude that bikeshare services are very popular in metropolitan cities as most people want to avoid heavy traffic and searching for parking due to these cities being highly congested. We can deduce from our data that Men are more likely to utilize bikeshare services and are more likely to subscribe. It will be more profitable to target the male riders when attempting to attract new customers or subscribers.

In the Average Trip Duration image below, we can conclude that the later the birth year, the longer the ride duration. Younger riders tend to use the bikes for longer periods of time. Therefore, younger male riders is also an ideal market to target.

Chart, line chart, histogram

Description automatically generated

In the August Peak hours image below, the busiest time is between 7a.m to 9a.m and between 4p.m. and 7p.m. Rush hour or the time with the most traffic appears to be 5p.m.

Based on the image below, we can conclude that the best time to do maintenance on the roads is between 2a.m. and 5a.m. as those times had the least amount of traffic.

Chart, bar chart

Description automatically generated