**Tableau Analysis Text File**

**Start Station Popularity Change Over Time:** This dashboard illustrates Start Station Popularity by Year across Jersey City. Map circles vary by size according to the total number of unique Ride IDs. The larger the size, the greater the number of Ride IDs that originated at each Start Station and vice versa.

Click on any Start Station data point on the map. Notice how the bar chart below is filtered to display only data for that Start Station. Light blue bars and dark blue bars refer to Member and Casual Membership Status, respectively. Bar chart data is then unfiltered when unclicking the data point map.

Overall, Hoboken Terminal - River St & Hudson Pl was the most popular Start Station for 2023 and 2024. Finally, 07030 and 07302 were the most popular regions, which is expected as they correspond to downtown Hoboken and downtown Jersey City.

**Top 10 Start Stations for Starting a Journey:** This dashboard illustrates the Top 10 Start Stations. The color scheme makes Start Station data more visually appealing and easier to understand. Like the previous dashboard, the horizontal bar chart is filtered when a map Start Station data point is selected.

Overall, Hoboken Terminal - River St & Hudson Pl is the greatest Top Start Station for 2023 and 2024. Newport Pkwy and 12 St & Sinatra Dr N are the lowest Top Start Stations for 2023 and 2024, respectively. The map is consistent with this data as it displays bigger circles at Hoboken Terminal and Grove Street train stations.

We can infer that these Citi Bike program users most likely commute to and from New Jersey and then, travel via Citi Bike.

**Top 10 End Stations for Ending a Journey:** This dashboard illustrates the Top 10 End Stations. The previously used Start Station color scheme is applied to End Stations which allows for easier comparison between dashboards. Map and horizontal bar chart functionality is identical to the previous dashboard.

Overall, Grove St PATH is the greatest Top End Station for 2023 and 2024. Newport Pkwy is the lowest Top End Station for 2023 and 2024. We can infer that Citi Bike program users continue to commute to and from New Jersy at the end of their bike journey.

**Total # of Rides by Membership Status in July vs December:** This dashboard illustrates the Total Number of Rides by Membership Status in July vs December. The stacked bar chart below shows the number of Ride IDs for 2023 and 2024 by Membership Status per month. Additionally, reference lines display the overall number of Ride IDs per month.

The stacked bar chart above breaks this data further by month and year. Clicking on either Membership Status data in the stacked bar chart below will filter the stacked bar chart above accordingly.

Overall, summer (July) had almost twice as many Ride IDs as winter (December) with 218,175 and 113,101, respectively. Moreover, Members used bikes more frequently than Casual users across time periods.

**Total # of Rides by Bike Type and Time Period:** This dashboard illustrates the Total Number of Rides by Bike Type and Time Period. The line graph below displays the data by year and Bike Type. The stacked bar above breaks this data further by month and year. Reference lines display the total number of bikes by Bike Type.

Overall, Classic bikes were the most frequently used bike type across time periods. Specifically, a total of 214,102 Classic, 116,962 Electric, and 212 Docked bikes were utilized in 2023 and 2024.

**Average Trip Duration at Top 10 Start Stations by Bike Type and Membership Status:** This dashboard illustrates the Average Trip Duration at the Top 10 Start Stations by Bike Type and Membership Status. Trip Duration was calculated by finding the difference between Ended At and Started At times. The horizontal stacked bar chart below shows the Average Trip Duration in Minutes by Membership Status per year.

The heat map above breaks this data further by Bike Type. Clicking on either Membership Status data in horizontal bar chart will filter the heat map accordingly. Overall, Casual members had longer trips on average during 2023 and 2024. Furthermore, Docked bike users had the longest average trip at 81.67 minutes beginning at Newport PATH. Note, there was missing data for Docked Bikes beginning at Bergen Ave & Sip Ave.

**Average Distance Traveled at Top 10 Start Stations by Bike Type and Membership Status:** This dashboard illustrates the Average Distance Traveled at the Top 10 Start Stations by Bike Type and Membership Status. Trip Duration was calculated by finding the distance between Start and End locations using latitude and longitude. Functionality for both visualizations is identical to the previous dashboard.

Overall, Casual members traveled the greatest average distance during 2023 and 2024. Furthermore, Docked bike users traveled the greatest average distance, beginning at Bergen Ave & Sip Ave.