Citiike Stations by User Type and Popularity Throughout the Seasons (July 2023 vs. January 2024)

An analysis of the Citibike trends occurring in Jersey City in July 2023 versus the January 2024 phenomenon between casual riders and those with Citibike memberships. The data sources from July 2023 and January 2024 were combined to create over 150,000 entries that describe the rider type, ride ID, classic bike vs. electric bike, station names and IDs, as well as start latitude and longitude and end latitude and longitude.

**Member Dashboard**

The member dashboard presents a map that shows the Citibike stations by user type popularity and demonstrates the differences between July 2023 (mid-summer) and January 2024 (mid-winter). The map can be filtered by month and by day, with the circle size showing the most popular stations by day during the summer when there are more tourists, versus the winter when there are fewer tourists.

The bar charts indicate that the total trips taken in the summer are significantly more than the amount taken in the winter possibly due to weather conditions and a slow tourist season, with a 41.72% decrease in member users in January 2024 and a decrease of 76.20% in casual riders. These charts can be filtered by day and month to see which days are busier than others.

**Storyboard**

The storyboard includes the member dashboard along with other insights into the seasonal differences. The line graph indicates that, in the summer, members use more Citibikes on Mondays and Wednesdays, possibly due to increased commutes to the office, as those are the days when most people go in. For member riders, there is a 25.23% decrease in usage between Monday and Tuesday, which correlates to the number of people who normally go into the office on those days. It increases again on Thursday by around 17% and begins to taper down throughout the weekend. This is the opposite for casual riders, who use the Citibikes at an increasing rate of more than 57% Thursday through Saturday. As for the winter months, usage is cut in half for casual riders, while members primarily use the bikes on Wednesdays more than any other day of the week, with a dramatic drop to a little over 3,000 users on the weekends.

The most popular stations by day for each of the two seasons can also be seen in the bubble chart in addition to the preferred bike type by rider in the pie chart. These can both be filtered by month (season) and day.   
  
**Results**

The results of this analysis indicate that Citibike might want to reallocate financial resources into bike repairs, marketing, and station upkeep during the winter months while there is less usage and prepare for the summer peak. The filters can be used to determine which days and which stations have fewer users, in other words, the optimal days for bike and station repairs and maintenance before the summer peak.