Citi Bike Analytics

# Phenomenon 1

One phenomenon that can be found from this data is that, although the number of rides is lower in the winter months (November and December), the riding patterns remain the same as the summer months (July and August).

One example of this is the average journey length, which stays relatively stable throughout the months. It would be expected that due to adverse weather conditions, some riders would be slowed down in winter, as well as the cold weather deterring riders who take longer trips from using a bike for travel.

Additionally, the visualisations illustrating the rides throughout the day show that the pattern for each month remain similar. The peak riding hours are at 8am and 5-6pm for each month, likely due to commuters for work.

Further to this, although there are more member riders throughout the months, the average ride time for members remains significantly lower than casual riders in each month in the dataset. Members tend to journey for c. 15 minutes, while casual riders journey for close to 30 minutes.

# Phenomenon 2

Another phenomenon found in this dataset relates to station popularity. The top 10 starting stations and ending stations are the same. This is likely due to commuters. This is further backed up by the line graph showing the number of rides throughout the day for the top 10 stations. These all peak at the same times where commuters would be travelling to and from work.

One thing to note is that the top stations may not be the most used in each month e.g., West St & Chambers St has a higher ride count in August than the top station (W 21 St & 6 Ave), however they have the highest ride count in total.

# City Official Map

The city official map further backs up the phenomenon mentioned above. The stations with the highest number of rides are clustered together. This cluster is where commuters would be travelling to and from daily. It can also be seen that the further the distance from this cluster, the less rides are carried out.

Further analysis shows that the area where the highest number of rides takes place is Manhattan which is the most the most densely populated and geographically smallest of the five boroughs of New York City. It is also the commercial and financial centre of the city; therefore, it would naturally have the highest number of rides in the area.