City Bike Data Analysis for January 1, 2023 to February 1, 2023

Slide 1,2,3,4 Analysis:

Note: **The way that City Bikes stores their data leads to multiple latitudes and longitudes showing up for every starting station whereas their ending station only has one latitude and longitude combination for their ending station. This leads to slide 2 having what looks like many locations for starting point but each of these locations fall within 1 of the top ten starting stations outlined in slide 1. If you view the tool tip you can see each starting location.**

For this part of the assignment I looked at the top ten busiest Starting and Ending stations owned by CitiBike. I found that both the top 10 starting and ending stations all exist in New Jersey (Slides 2,3). This was surprising to me because none of the top ten locations were in Manhattan even though it is one of the most populated cities in the world. My best guess is that locations in Manhattan carry a higher charge due to them being in New York and therefore more people elect to walk rather than ride a bike. One common them about these locations is that they tended to be near high traffic areas such as bus or train stops. Another surprising finding was that the top 8 starting and ending stations are the exact same (Slide 1). I believe that most of these are the same because people elect to take the bikes out for the day and site see areas like Hoboken and then return them when they are done. Slide 4 looked at each station in the Manhattan and New Jersey area by ending location of bike trips. The first takeaway from this map is that there seems to be a lot more CitiBike locations in the Hoboken and New Jersey side. One possible reason for this is that New Jersey could be encouraging more people to find alternative forms of transportation than in New York. This could be through subsidies on companies like CitiBike or raising prices of common forms of transportation to encourage others to choose bikes. Another theory is that prices in New Jersey and Hoboken specifically tend to be cheaper than Manhattan, so it is easier for the CitiBike to set up locations in New Jersey rather than Manhattan. Slide 4 also reinforces the findings in slide 1 that there are more bike terminals and more bike traffic in New Jersey than Manhattan.

Slide 5,6 Analysis:

For this part of the assignment, I took a look at what times people most commonly begin their bike ride and what kinds of bikes/members are taking the ride. My first finding on slide 5 was that more people tend to choose a classic bike over an electric bike. This is most likely due to electric bikes costing more and their availability being lower due to them needing to charge. The second finding was that majority of rides began at 8 am and 5 pm. This makes sense as these are the most common times people will be traveling to and from work. The second portion of slide 5 showed that majority of the people taking these rides are members of CitiBike as opposed to casual bikers who just pay on a ride-to-ride basis. Slide 6 of this story compared the average ride times between casual riders and CitiBike members. On average casual bike riders spent more time on their trips when compared to members. This is probably because members buy the bike pass to bike between home and work whereas casual bikers take their bikes out for rides to see scenery since it is not as common for them. Lastly this also compred average ride time between electric bikes and classic bikes and found that on average people rode electric bikes longer.