

Citi Bike throughout the Month Dashboard Analysis

Based on the visualization you see that for casual riders the most popular ride times appear to be the weekends, this makes sense as weekends are generally days that people are off and have less commitments and are therefore more inclined to try a new form of transportation. Alternatively for members the weekends tend to be lower usage with the most popular days being the weekdays. This could be explained by a sub population relying on citi bikes as their form of transportation to get to and from work and therefore not having to rely on the bikes over the weekend. If people are consistently using citi as a form of transportation it would be more beneficial that they would sign up as members, as members pay a reduced fee. Looking at the hours of use, 17:00 seems to be the most popular hour for taking out a citi bike which aligns with when commuters would traditionally end work and need a ride home. The most popular station seems to be Hoboken Terminal which is a commuter oriented station also known as one of New York's major transportation hubs. The data set is for the month of November 2022, based on the observation in the graph we see a pattern of usage. There's an observed decrease in the usage around the 23rd and 24th, this would be Thanksgiving day and therefore there would be less people needing a bike as they would be off from work.

Citi Bike Usage by Ride Type Dashboard Analysis

Based on the visualization it is observed that the most common ride type is a classic bike, this is for both members and casual riders. It is likely that members that use citi bikes as a form of transportation use classic bikes as they are more reliable. Citi Bikes provides a staggering larger number of classic bikes as opposed to any other bikes making it the most reliable and readily available bike to rent out. It's interesting to observe that usage of docked bikes is virtually zero regardless of the conditions, upon further investigation docked bikes are no longer a type of bike offered by citi bikes which explains their low usage. The most popular station for both electric and classic bikes is Hoboken Terminal, because this station is known as a transportation hub the number of bikes available both electric and classic is higher due to the demand. According to citi bikes website they are introducing a new type of electric bike and it would be interesting to see if these new bikes increase the demand for electric bikes over the years.

Bike Map Analysis

Based on the map visualization the volume of bike stations varies significantly based on the location of the station. The most popular zip code for both start and end location is 07302, this location is located in central downtown and is central to many business and residential areas. The second most popular neighborhood for both starting and ending a trip is 07030, based on the map this neighborhood similar to the last has a larger volume of bike stations. The most popular bike stations for both start and end trips are located along the riverfront. Based on the map there is a large volume of bike stations clustered along the riverfront. The volume of bike stations located in the riverfront location is significantly greater than any other postal code neighborhood.