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| City bikes analytics- Tableau | Tableau findings summary on how Season, time of day, cycle station and gender demographics affect bike sharing in the New York city area.  David Obembe  SMU Tableau Assessment |

# Sources of Data

The data used for Tableau analysis was obtained from citibikenyc.com. Citi bike trip data was made available as csv files containing monthly data from 2013 till date. Each month had its own CSV.

# Data Cleaning and Exploration

The CSV files downloaded was for January to December 2019. Each file was very large, therefore I had to take a 10% sample from each month’s csv. The was cleaned using Python’s Pandas library, converted into a single dataframe, and finally exported as a single csv(“data\_to\_Visualisze\_citibike.csv”).

The length of the final dataframe and csv was 2055168 rows.

# Analysis

Observations:

* In every bicycle station, majority of the bike sharers were male.
* The month with the highest number of bike sharers was in October and the second and third highest months were August and September, respectively.
* The third quarter of the year recorded the longest trip durations.
* During weekdays, the busiest were between 7-9am and 4-6pm. On weekends bike sharing remained relatively low.
* There were more bike sharing subscribers than there were customers.
* Bike sharing customers were most likely to use shared bikes between 12-1pm on Saturday and they were just as likely to be male as they were to be female.

Suggestions:

* There were fewer subscribers sharing bikes on Saturday whereas there were more casual customers during this time. NY Citi bikes can capitulate on this opportunity by reducing the price of bikes for casual customers during the weekends to take advantage of this trend.
* Subscribers tended to be male. NY Citi bikes could encourage their female market to subscribe to bike by providing bicycles with more feminine designs (maybe provide pink bicycles) and bicycles that are ergonomically designed to carry handbags for the working woman etc.
* Summer and Autumn months had the highest bike use. Therefore, NY Citi must ensure the availability of bikes during these periods of higher demand.

# Conclusion

By the end of the project, 7 visualisations were created as well as two dashboards and one story. Each visualisation provided insight via tooltips and responded to filters and clicks. A question Mark at the heading of the first dashboard revealed information summaries for each dashboard visualisation.