**Google Data Analysis Capstone Project**

The Google Data Analytics Capstone Project has been completed in 3 Parts:

* Part 1: 2023 trends for Cyclistic Members and Casual Riders (Using Microsoft Excel and Tableau)
* Part 2: 2019 Q1 and 2020 Q1 Analysis (Using SQL and R)
* Part 3: 2016 to 2023 patterns followed by Riders (Using Python and Tableau)

**Cyclistic Bike-Share Analysis Report: Part 1**

**Introduction**

Welcome to the Cyclistic bike-share analysis case study! As a junior data analyst at Cyclistic, I have tried to understand how casual riders and annual members use Cyclistic bikes differently. This analysis is crucial for designing a new marketing strategy to convert casual riders into annual members.

**Business Task**

The primary business task is to investigate how annual members and casual riders utilize Cyclistic bikes differently, providing insights to inform a targeted marketing strategy.

**Data Sources**

The data for analysis was obtained from [Motivate International Inc](https://divvy-tripdata.s3.amazonaws.com/index.html). under this [license](https://divvybikes.com/data-license-agreement). The dataset spans from 2016 to 2023, containing .csv files with monthly and quarterly records.

**Data Preparation**

Data was downloaded, organized, and cleaned to ensure its integrity. Columns for ride length and day of the week were added to facilitate analysis. No personally identifiable information was used due to data-privacy constraints. The .csv files included columns such as ride\_id, rideable\_type, started\_at, ended\_at, start\_station\_name, start\_station\_id, end\_station\_name, end\_station\_id, start\_lat, start\_lng, end\_lat, end\_lng, and member\_casual.

**Data Processing**

Tools such as Microsoft Excel and Tableau were employed for data processing. Microsoft Excel was employed for data cleaning, and Tableau was utilized for visualization, enhancing the presentation of insights.

**Year of Focus**

For this analysis, the primary year of focus is 2023. This decision was made to ensure relevance and current insights.

**Exclusion of Details**

Due to some files lacking details related to start and end station names, IDs, and geographical coordinates, these specifics were excluded during the analysis. Unfortunately, there was no viable method to fill in these missing details.

**Data Transformation**

The .csv files were converted into Excel workbooks for ease of manipulation. Three new columns, namely trip\_duration, day\_of\_week, and date, were calculated to enhance the analytical capabilities.

**Pivot Tables**

Pivot tables were created to calculate the sum of rides by Cyclistic members and casual riders for each day of every month in 2023. This allowed for a granular view of usage patterns over time.

**Tableau Dashboard**

The data from these pivot tables was combined and used to create a Tableau dashboard. This dynamic visualization tool adds a layer of interactivity, facilitating a comprehensive understanding of user behaviors.

**Analysis Summary**

The analysis revealed insights into ride lengths, day-of-week patterns, and user behaviors for both casual riders and annual members.

**Recommendations**

* Targeted Promotions: Design marketing campaigns that highlight the benefits of annual memberships for commuters, focusing on convenience and cost-effectiveness.
* Incentivize Weekend Rides: Encourage casual riders to become members by promoting weekend-exclusive offers, emphasizing leisurely bike rides.
* Digital Engagement: Leverage digital media to showcase the advantages of annual memberships, employing social media and email campaigns to reach a broader audience.