# Cyclistic bike-share analysis

## Data Analyst: Marouane Tayachi

## Client/Sponsor: Cyclistic bike share

## Purpose:

*The project aims to create a marketing strategy to convert casual riders into members. The analysis can help identify which casual riders to target with the marketing campaign.*

*Based on two years historical data of rides (2021 - 2022), this analysis will identify the most frequent number of rides per day, the times of rides and eventual schedule patterns in bike rides, Area of concentration and most frequent routes for bikers with annual membership, to understand the motivation factors for subscribing. Then casual riders data will be analyzed to identify potential conversion points and produce recommendations. Based on the analysis results, the recommendations should include focus areas and times, and guidelines to casual riders’ profile to be targeted.*

Scope / Major Project Activities:

*What are the major parts of this project? List out the high-level steps, activities, or stages of the project, and give a brief description for each.*

| Activity | Description |
| --- | --- |
| Data Exploration and preparation | - Download the csv files and understand how they are organized  - Explore data and identify if it can answer our questions  - Identify potential integrity and bias issues  - Identify data limitations  - Document a description of the data |
| Data Processing | - Identify data constraints  - Verify errors and inconsistencies  - Transform data for analysis |
| Identify Factors related to annual membership subscription | Create aggregations and perform calculations to answer the following questions :  - What is the average duration of members' bike trips ?  - What are the members’ top five routes ?  - What are the two most frequent times of the day for bike trips for members ?  - How many times do members ride in a day ?  - Do members ride during weekends or only on business days ?  - Are there areas where members are concentrated ? If yes, what are the top two Areas ? |
| Analyze casual riders data and create recommendations | - Analyze casual riders data to identify key differences and conversion points  - Create recommendations for for areas, times and riders profiles to target for the marketing campaign |

## This project does not include:

* *The creation of a statistical model to predict which riders are most likely to subscribe for a membership*
* *Analysis on data before 2021*

## Deliverables:

*A specific list of things that your project will deliver.*

| Deliverable | Description/ Details |
| --- | --- |
| A document containing a description of the data used | The description includes the data sources, how the data is organized, information about the records’ attributes and a schema on how the attributes can be used to answer the business questions |
| A data change log | A document including the changes made to the data to be ready for analysis |
| Documents containing the data analysis Process | A document explaining the analysis process step by step, + a markdown file that can be used to reproduce the analysis on other time periods if needed |
| The data analysis results | A documents containing the results of the analysis and the key takeaways |
| Data visualizations | A collection a data Visualizations to present and support the key takeaways |

## Schedule Overview / Major Milestones:

*The expected schedule for the project. This can be defined by milestones (e.g. “all data is cleaned and processed”), periods of time (“Week 1 / Week 2”), or other ways based on the needs of the project.*

| Milestone | Expected Completion Date | Description/Details |
| --- | --- | --- |
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## \*Estimated date for completion:

*This is my “if all goes well and I have everything I need, this is when I’ll be done” date.*