

# Scope of Work

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**Data Analyst:** Mostafa Essam

**Client/Sponsor:** Google Data Analytics Certificate Program

**Purpose:** The purpose of this project is to analyze how annual members and casual riders use Cyclistic bikes differently, in order to help the marketing team design data-driven strategies to convert casual riders into annual members.

**Stakeholders:**

- Lily Moreno (Director of Marketing)
- Cyclistic Executive Team
- Marketing Analytics Team

**ROCCC Analysis:**

- Reliable: Yes – official data from Divvy/Motivate
- Original: Yes – publicly available and open data
- Comprehensive: Yes – includes trip details, timestamps, user types
- Current: Covers Q1 2019 & Q1 2020 (limited by dataset availability)
- Cited: Provided by Google as part of the capstone project

**Scope / Major Project Activities:**

Activity	Description
Clean datasets	Download datasets, clean and prepare Divvy 2019 Q1 and 2020Q1
Exploratory Data Analysis (EDA)	Explore usage patterns, detect missing values and anomalies
Statistical Analysis	Calculate ride duration, user trends, and weekdays patterns.
Visual Aids	Generate visualization using ggplot2 within RMarkdown
Final Report	Submit RMarkdown(.Rmd) and HTML report documenting analysis.

**This project does not include:**

- Building a Tableau or Power BI dashboard.
- Preparing a PowerPoint or external presentation.

**Deliverables:**

- Cleaned dataset (R script).
- RMarkdown (.Rmd) file with full analysis.
- HTML report generated from the RMarkdown.
- README.md file describing the project and findings.
- Scope of Work document.

**Schedule Overview / Major Milestones:**

Milestone	Description	Date
Completion of Data Download	Datasets reviewed and cleaned	Day 1
Completion of EDA	Initial insights and exploration completed	Day 2-3
Completion of Statistical Analysis	Main descriptive stats and group comparisons	Day 4-5
Completion of Visualizations	Graphs and plots finalized in RMarkdown	Day 6
Final Report Submission	RMarkdown and HTML finalized, files uploaded	Day 7

Estimated Completion Date: 20 July 2025