

Project Requirements Document: Cyclistic

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Client/Sponsor: Jamal Harris, Director, Customer Data

Purpose: (Briefly describe why the project is happening and why the company should invest resources in it.)

The Cyclistic Customer Growth Team is developing next year's business plan and wants to analyze how customers use their bikes. Their main focus is identifying demand across different station locations. Since the dataset contains millions of rides, they require a dashboard that delivers key insights in a clear and concise format. Business plans informed by customer data are more effective than those based solely on internal observations. To guide leadership decisions, the executive view must present essential data points in a summarized and aggregated manner, offering a comprehensive overview of customer behavior.

Key dependencies: (Detail the major elements of this project. Include the team, primary contacts, and expected deliverables.)

This project requires access to a customer dataset, which must be approved by the Director of Customer Data. Additionally, approval is needed from the teams responsible for specific product data, such as bike trip duration and bike identification numbers, to ensure accurate data interpretation. The primary contacts for this process are Adhira Patel, Megan Pirato, Rick Andersson, and Tessa Blackwell.

Stakeholder requirements: (List the established stakeholder requirements, based on the Stakeholder Requirements Document. Prioritize the requirements as: R - required, D - desired, or N - nice to have.)

To continuously enhance and effectively market Cyclistic's products, the dashboard must provide decision-makers with a clear understanding of customer bike usage and demand at various locations, including factors influencing demand at different times.

Key visualizations and insights include:

- A table or map displaying starting and ending station locations, aggregated by location. **(R)**
- A visualization highlighting popular destination (ending) locations based on total trip minutes. **(R)**

- A visualization analyzing trends from the summer of 2015. **(D)**
- A visualization depicting the year-over-year percentage growth in the number of trips. **(R)**
- Insights into station congestion. **(N)**
- Insights on the number of trips across all starting and ending locations. **(R)**
- Insights into peak usage patterns by time of day, season, and the impact of weather. **(R)**

Success criteria: (Clarify what success looks like for this project. Include explicit statements about how to measure success. Use SMART criteria.)

Specific: BI insights must effectively pinpoint the key features that define a successful product. They should showcase how customers currently utilize bikes and what factors influence demand at different station locations.

Measurable: Each trip needs to be assessed based on its starting and ending points, duration, and influencing factors such as time of day, season, and weather. For instance, does bike usage drop when it rains? Or does demand remain stable? Does this differ depending on location and whether users are subscribers or non-subscribers?

Action-oriented: These findings should confirm or refute the assumption that location, time, season, and weather play a role in user demand. The Cyclistic team will then apply these insights to improve future product development.

Relevant: Every metric should align with the fundamental question: How can we create a better Cyclistic experience?

Time-bound: The data should cover at least one year to evaluate how seasonal trends impact bike usage. Analyzing data over multiple months will provide a clear picture of usage fluctuations, capturing both peak and low-demand periods.

User journeys: (Document the current user experience and the ideal future experience.)

The primary goal of Cyclistic is to enhance the bike-share experience for customers. A detailed analysis of trip trends will enable decision-makers to understand current usage patterns and identify opportunities for improvement.

Assumptions: (Explicitly and clearly state any assumptions you are making.)

The dataset includes latitude and longitude for stations but lacks geographic aggregation details such as zip codes, neighborhood names, or boroughs. A separate database with this information will be provided by the team.

The available weather data does not specify the time of precipitation, meaning some rainfall may have occurred during off-peak hours. However, for the purpose of this dashboard, any precipitation on the day of a trip should be considered as a potential influencing factor.

Since bike trips cannot start at a location without available bikes, additional factors may need to be considered when analyzing demand.

Compliance and privacy: (Include compliance, privacy, or legal dimensions to consider.)

The dataset must exclude any personal information, such as names, email addresses, phone numbers, or physical addresses. While users provide this data during device activation, it is not required for this project. Ensuring user anonymity is essential to prevent bias in the analysis.

Accessibility: (List key considerations for creating accessible reports for all users.)

The dashboards should include text alternatives, such as large print and text-to-speech options, to ensure accessibility for all users.

Roll-out plan: (Detail the expected scope, priorities and timeline.)

The stakeholders have requested a completed BI tool in six weeks:

- Week 1: Dataset assigned. Initial design for fields and BikeIDs validated to fit the requirements.
- Weeks 2-3: SQL & ETL development
- Weeks 3-4: Finalize SQL. Dashboard design. 1st draft review with peers.
- Weeks 5-6: Dashboard development and testing