

# Project Requirements Document: Cyclistic

**BI Analyst:** Singye Dorji

**Client/Sponsor:** Jamal Harris, Director, Customer Data

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

Cyclistic's Customer Growth Team is developing a business plan for the upcoming year and aims to gain insights into how customers are using their bikes. Their primary focus is to identify customer demand across various station locations. With millions of rides in the dataset, the team is looking to create a dashboard that highlights key insights. Business plans informed by customer insights tend to be more effective than those based solely on internal observations. The executive summary must include essential data points that are aggregated and summarized, providing the leadership team with a clear understanding of customer usage patterns at Cyclistic.

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

This project will require a dataset of customer data, so the Director of Customer Data will need to approve the request. Approval should also be given by the teams that own specific product data including bike trip duration and bike identification numbers to validate that the data is being interpreted correctly. The primary contacts 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 improve and effectively market its products, the dashboard must provide Cyclistic decision-makers with a clear understanding of customer bike usage and demand across various locations, including factors influencing that demand at different times. Key components of the dashboard should include:

- **Table or Map Visualization:** Display starting and ending station locations, aggregated by location. **(R)**

- **Destination Popularity Visualization:** Highlight popular ending locations based on total trip minutes. **(R)**
- **Summer 2015 Trends Visualization:** Focus on trends from the summer of 2015. **(D)**
- **Year-over-Year Growth Visualization:** Show the percent growth in the number of trips annually. **(R)**
- **Congestion Insights:** Analyze congestion levels at various stations. **(N)**
- **Trip Insights:** Provide data on the total number of trips across all starting and ending locations. **(R)**
- **Peak Usage Insights:** Examine peak usage times by hour, season, and the impact of weather conditions. **(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 clearly identify the specific characteristics of a successful product. They must demonstrate how customers are currently using bikes and what impacts demand at station locations. **Measurable:** Each trip should be evaluated using starting and ending location, duration, variables such as time of day, season, and weather. For example, do customers use Cyclistic less when it rains? Or does bikeshare demand stay consistent? Does this vary by location and user types (subscribers vs. non-subscribers)? **Action-oriented:** These outcomes must prove or disprove the theory that location, time, season, and weather impact user demand. Then, the Cyclistic team will use this knowledge to refine future product development. **Relevant:** All metrics must support the primary question: How can we build a better Cyclistic experience? **Time-bound:** Analyze data that spans at least one year to see how seasonality affects usage. Exploring data that spans multiple months will capture peaks and valleys in usage.

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

The main purpose of Cyclistic is to provide customers with a better bike-share experience. A deeper-dive into trip trends will help decision-makers explore how customers are currently using Cyclistic bikes and how that experience can be improved.

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

The dataset includes latitude and longitude of stations but does not identify more geographic aggregation details like zip code, neighborhood name, or borough. The team will provide a separate database with this data.

The weather data provided does not include what time precipitation occurred; it's possible that on some days, it precipitated during off-peak hours. However, for the purpose of this dashboard, you should assume any amount of precipitation that occurred on the day of the trip could have an impact.

Starting bike trips at a location will be impossible if there are no bikes available at a station, so we might need to consider other factors for demand.

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

The data must not include any personal data such as name, email address, phone number, or physical address. The user provides this data as part of their device activation but is not necessary for this project. It is paramount that the users be anonymized to avoid any bias.

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

The dashboards should offer text alternatives including large print and text-to-speech.

**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