Project Requirements Document: Cyclist

## **BI Analyst:** Amrita Chinnam

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

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

Cyclists’ growth is creating a business plan for next year for new stations’ growth. The goal is to analyze customer needs for a successful product by understanding current bike demands and usage at different station locations. The dataset includes millions of rides, so the team should consider a dashboard to summarize key insights.

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

Primary Contacts:

* Adhira Patel, API Strategist
* Megan Pirato, Data Warehousing Specialist
* Rick Andersson, Manager, Data Governance
* Tessa Blackwell, Data Analyst

Expected Deliverables:

* The project requires access to datasets of customer data. The director of customer data needs to approve the request.
* Approval should also be given by the teams that have specific product data including bike trip duration and bike identification numbers to validate that the data is being interpreted correctly.
* The dashboard needs to be accessible, with large print and text-to-speech alternatives.

**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.)

The dashboard must help Cyclist decision makers understand how their customers are using their bikes and their demand at different locations, including the factors that influence their demand.

* A table or map visualization exploring starting and ending station locations, aggregated by location. This should show the number of trips at starting locations. **R**
* A visualization showing which destination (ending) locations are popular based on the total trip minutes. **R**
* A visualization that focuses on trends from the summer of 2015. **D**
* A visualization showing the percentage growth in the number of trips year over year. **R**
* Gather insights about congestion at stations. **N**
* Gather insights into the number of trips across all starting and ending locations. **R**
* Gather insights about peak usage 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.)

* **S**pecific – BI insights should include the characteristics of a successful project. It should demonstrate how customers are using bikes and what impacts their demand on specific station locations.
* **M**easurable - 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)?
* **A**ction-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.
* **R**elevant - All metrics must support the primary question: How can we build a better Cyclistic experience?
* **T**ime-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 Cyclist is to provide a better bike sharing experience to customers. A deep dive into customer trends will help decision makers explore customer demands and improve their experience.

## **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, such as 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, I 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.

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

The dashboard needs to be accessible, with large print and text-to-speech alternatives.

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

The stakeholders are expecting the dashboard to be created in 6 weeks.

Week 1: Dataset assigned. Initial design for fields and BikeIDs validated to fit the requirements.

Weeks 2–3: SQL and ETL development

Weeks 3–4: Finalize SQL. Dashboard design. 1st draft review with peers.

Weeks 5–6: Dashboard development and testing