Project Requirements Document: Cyclistic

## **BI Analyst:** Yiu

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

## **Purpose:** Cyclistic’s Customer Growth Team wants to understand how their customers are using their bikes; their top priority is identifying customer demand at different station locations. The dataset includes millions of rides, so the team wants a dashboard that summarizes key insights. Business plans that are driven by customer insights are more successful than plans driven by just internal staff observations. The executive summary must include key data points that are summarized and aggregated in order for the leadership team to get a clear vision of how customers are using Cyclistic.

## **Key dependencies:**

The project will use datasets that include customer (user) data, which need approval from Jamal. The project might need approval by the teams that own specific product data, including bike trip duration and bike identification numbers.

Team members:

* Adhira Patel, API Strategist
* Megan Pirato, Data Warehousing Specialist
* Rick Andersson, Manager, Data Governance
* Tessa Blackwell, Data Analyst
* Brianne Sand, Director, IT
* Shareefah Hakimi, Project Manager

\*Primary contacts are Adhira, Megan, Rick, and Tessa.

## **Stakeholder requirements:**

## R - required

* A table or map visualization exploring starting and ending station locations, aggregated by location.
* A visualization showing which destination (ending) locations are popular based on the total trip minutes.
* A visualization showing the percent growth in the number of trips year over year.
* Gather insights about the number of trips across all starting and ending locations.
* Gather insights about peak usage by time of day, season, and the impact of weather.

## D - desired

* A visualization that focuses on trends from the summer of 2015.

## N - nice to have

* Gather insights about congestion at stations.

## **Success criteria:**

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. Evaluate each trip on the number of rides per starting location and per day/month/year to understand trends.

*(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:**

Explore how customers are currently using Cyclistic bikes through data and how that experience can be improved.

## **Assumptions:**

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:**

The data must not include any personal info (name, email, phone, address). Personal info is not necessary for this project. Anonymize users to avoid bias and protect their privacy.

**Accessibility:**

(Per Sara: Dashboard needs to be accessible, with large print and text-to-speech alternatives.)

**Roll-out plan:**

* 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

\*Dashboard must be created in 6 weeks!