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.)

Cyclistic's Customer Growth Team is creating a business plan for next year. The team wants to understand how their customers are using their bikes; their top priority is identifying customer demand at different station locations. Cyclistic has captured data points for every trip taken by their customers. 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: (Detail the major elements of this project. Include the team, primary contacts, and expected deliverables.)

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

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.)

- A table or map visualization exploring starting and ending station locations, aggregated by location. 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 percent growth in the number of trips year over year. R
- Gather insights about congestion at stations. N
- Gather insights about 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.)

- **Specific**: Insights must clearly identify the key indicators of a successful product. They reflect how customers are currently using the product and what factors impact customer demands.
- **Measurable**: Each bike trip must be evaluated.
- **Action-oriented:** All observations and insights must guide the team to determine what affects customer demands and how to improve the product.
- **Relevant**: All metrics and insights collected should directly contribute to answering the question of how to improve the product.
- **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.

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.)

PII cannot be included since they are not necessary for this project. Anonymize users to avoid bias.

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

Dashboard must be created in 6 weeks with the following schedule:

- 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