Project Requirements Document: Cyclistic

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

**Purpose**

Cyclistic’s Customer Growth Team is developing a strategic business plan for the upcoming year, focused on gaining a better understanding of customer bike usage. The priority is to identify customer demand patterns at various station locations. Given the large dataset of ride data, the team requires a dashboard to summarize key insights. Customer-driven insights are expected to lead to more successful business planning compared to solely internal observations. The executive dashboard should present key metrics in a concise, aggregated format to provide Cyclistic’s leadership with a clear view of customer usage trends.

**Key Dependencies**

This project depends on access to customer data, requiring approval from the Director of Customer Data. Additional approvals are necessary from teams responsible for product-specific data, including bike trip duration and bike identification numbers, to ensure proper data interpretation. Key contacts include Adhira Patel, Megan Pirato, Rick Andersson, and Tessa Blackwell.

**Stakeholder Requirements**

To continuously enhance product offerings and tailor marketing efforts, the dashboard must provide Cyclistic’s decision-makers with insights into customer bike usage patterns and demand across locations. Requirements are prioritized as follows:

• **Required (R):**

• A table or map visualization that aggregates starting and ending station locations by area.

• A visualization of popular destination (ending) locations based on total trip duration.

• A visualization displaying year-over-year percentage growth in trip numbers.

• Insights on trip volume across all starting and ending locations.

• Analysis of peak usage by time of day, season, and weather impact.

• **Desired (D):**

• A visualization focused on trends during the summer of 2015.

• **Nice-to-Have (N):**

• Insights on station congestion levels.

**Success Criteria**

To measure the project’s success, we will use SMART criteria:

• **Specific**: BI insights should clearly reveal the characteristics of a successful product, illustrating how customers use bikes and what factors influence demand at station locations.

• **Measurable**: Each trip will be analyzed based on starting and ending locations, trip duration, and factors such as time of day, season, and weather. For example, do customer usage rates change in adverse weather, or do demand patterns vary by location and user type (e.g., subscribers vs. non-subscribers)?

• **Action-oriented**: Insights should confirm or challenge the impact of factors such as location, time, season, and weather on customer demand, providing actionable data for Cyclistic’s future product development.

• **Relevant**: All metrics must align with the central question: *How can we improve the Cyclistic customer experience?*

• **Time-bound**: Analyze at least a year’s data to capture seasonality, covering multiple months to track usage peaks and dips.

**User Journeys**

The goal is to enhance the Cyclistic customer experience through improved bike-sharing options. A deep dive into usage patterns will empower decision-makers to understand current usage and identify areas for improvement.

**Assumptions**

• The dataset includes station latitude and longitude but lacks further geographic details like ZIP code or neighborhood. A supplementary database will provide these additional location details.

• Weather data lacks precise timing of precipitation events. For this project, assume that any precipitation on a trip day could impact usage, regardless of the time it occurred.

• Limited bike availability at a station may prevent new trips from starting, which could be an influencing factor when assessing demand.

**Compliance and Privacy**

No personal data, such as names, email addresses, phone numbers, or physical addresses, will be included. Although users provide this information during account setup, it is not required for this analysis. All user data should be anonymized to prevent bias and ensure privacy.

**Accessibility**

The dashboard should include accessibility features such as text alternatives, large print options, and text-to-speech capabilities to accommodate all users.

**Roll-out Plan**

The stakeholders have set a six-week timeline for the BI tool’s completion:

• **Week 1**: Assign dataset, confirm fields, and validate BikeID design.

• **Weeks 2-3**: Develop SQL and ETL processes.

• **Weeks 3-4**: Finalize SQL and dashboard design; conduct first draft review with peers.

• **Weeks 5-6**: Complete dashboard development and perform testing.