Project Requirements Document: [Cyclistic Dashbord]

## **BI Analyst:** El Khlife Messoud

## **Client/Sponsor:** Cyclistic

## **Purpose:** This project allows the company to better understand its customers in order to better meet their needs by consistently developing services tailored to customer demands and seasonal trends. This will provide the company with flexibility in adapting to changes and enable it to conduct more targeted marketing campaigns.

## **Key dependencies:**

The datasets will contain customer (user) data, requiring approval from the designated data compliance authority. Additionally, approval may be needed from teams responsible for specific product data, such as bike trip duration and bike identification numbers. Therefore, it is crucial to ensure that all stakeholders have appropriate access to the necessary datasets.

## **Stakeholder requirements:**

### **Required:**

* The dashboard must be accessible with large alternative text.
* A filtering parameter must be included to determine the **date, season, and customer type** (subscribers or non-subscribers).
* Show the impact of precipitation on bike usage.
* Identify variations in activity across different zones and determine the area with the highest activity.

### **Desired:**

* Gather insights about the number of trips across all starting and ending locations.
* A visualization showing the **percent growth in the number of trips year over year**.

## **Success criteria:**

* **Specific:** What are the main factors influencing customer preferences, and how do these preferences vary by season and geographic area?
* **Measurable:** How does the distribution of trips between starting and ending stations vary throughout the year, and what trends can be observed through maps or aggregated tables?
* **Attainable:** How can customer usage data be leveraged to identify high-potential areas and optimize the placement of new stations?
* **Realistic:** What services can be added or improved to increase the number of subscribers?
* **Timed:** What is the variation in service usage rates across the four seasons?

## **User journeys:** The user journey will provide a dynamic and interactive experience for analyzing bike usage trends. Users will be able to:

1. **Filter and Isolate Specific Activity Elements**
   * The dashboard will allow users to filter data by **day, week, month, season, and year**.
   * Users can analyze bike activity at different levels of granularity to uncover usage trends over time.
2. **Analyze Bike Usage by Station and Location**
   * Users can view data specific to **individual station IDs** to assess station performance.
   * A geographic heatmap will highlight high-traffic areas and zones with significant bike activity concentration.
3. **Segment Users by Subscription Type**
   * Users will be able to differentiate between **subscribers and non-subscribers** to understand behavior variations.
   * Insights into how different customer types utilize the service will support targeted marketing strategies.
4. **Identify Activity Hotspots**
   * The system will allow users to identify locations with the highest density of bike usage.
   * This will help optimize station placement and infrastructure improvements.

## **Assumptions:**

* The dashboard should also contain KPIs linked to the company’s annual objectives, providing a **monthly overview and assessment** of the attainability of these objectives.

## **Compliance and privacy:**

The dataset **must not contain personal information** such as **phone numbers, addresses, names, banking details, or user emails** to ensure privacy and data security.

## **Accessibility:**

* Dark text on a light background.
* Option to switch between dark mode and light mode.
* Large alternative text for better readability.
* Responsive design adapted for both mobile and desktop display.

## **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

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