**Business Requirement Document (BRD)**

**Project Title: Supply Chain Management Dashboard for Cars**

**Objective**

To design and implement an interactive Supply Chain Management Dashboard leveraging SQL Server and Kaggle data integration. The goal is to provide data-driven insights into car orders, sales, and customer behavior to improve operational efficiency, inventory visibility, and customer experience.

**Scope & Key Requirements**

1. Data Preparation & Cleaning
   * Remove unnecessary or redundant columns to ensure data accuracy and optimization.
   * Build a separate Calendar (Date) table to enable accurate time-based reporting.
2. Data Integration
   * Connect and fetch real-world car supply chain datasets from Kaggle via APIs, ensuring continuous data refresh.
3. Dashboard Development (Four Pages)
   * Home Page: High-level KPIs (Total Orders, Sales, Inventory Status).
   * Order View: Detailed order pipeline with lead times and fulfillment rates.
   * Sales View: Revenue trends, car availability, and performance by model.
   * Customer View: Customer demographics, preferences, and purchasing patterns.
4. Advanced Features
   * Availability Tracking: Show real-time car availability by model and location.
   * Filters & Segmentation: Enable drill-down filters (e.g., gender, car color, region).
   * Smooth Navigation: Provide seamless movement between pages for user-friendly experience.
   * Customer Drill-Down: Deep dive into customer-level data to identify patterns in demand.
   * Sentiment Analysis: Incorporate visuals (word clouds, polarity charts) to reflect customer feedback and reviews sentiment.

**Business Value & Impact**

* Operational Efficiency: Helps track supply-demand gaps and optimize inventory flow.
* Customer Obsession: Enhances understanding of customer preferences & sentiments.
* Scalability: Modular design allows future integration of additional datasets and predictive analytics.
* Decision-Making: Provides leadership with real-time insights for strategic supply chain decisions.