Assignment

Data Analyst

Assignment Title: Analyzing Transport Data with Power BI.

Objective:
The objective of this assignment is to leverage Power BI for the comprehensive analysis and visualization of transportation data sourced from a provided Excel file. This task aims to provide participants with practical experience in converting raw data into actionable insights, developing interactive dashboards, and deriving informed business decisions through the analytical process.

Assignment Tasks:
Build an interactive and user-friendly dashboard incorporating the visualizations and KPIs developed in the below tasks.

1. Data Import and Cleaning:
   a. Import the provided Excel file into Power BI.
   b. Cleanse the data by handling missing values, outliers, and any inconsistencies.

2. Data Exploration:
   a. Explore the dataset to understand the distribution and characteristics of the transportation data.
   b. Create summary statistics for key variables such as Total Miles, Loaded Miles, Shipping Cost, Revenue, and Ship Days.

3. Visualizations:
   a. Develop a set of visualizations to represent the data effectively. Possible visualizations include:
   b. Time series analysis for Ship Date and Delivery Date.
   c. Geographic analysis using maps to visualize the origin and destination cities.
   d. Revenue and Shipping Cost trends over time.
   e. Utilize appropriate charts (bar charts, line charts, pie charts) to showcase key insights.

4. Key Performance Indicators (KPIs): Define and calculate relevant KPIs for transportation performance.

5. Filtering and Slicing:
   a. Implement filters and slicers to enable dynamic data exploration.
   b. Create a mechanism for users to focus on specific time periods, categories, or trip types.