Sales Data Analysis

Step 1: Build the Data Model

A relational data model will be created, consisting of the following key tables:

1. **Sales Transactions** – Captures individual sales records, including product details, sales reps, and revenue.
2. **Products** – Stores product information such as name, category, and price.
3. **Customers** – Contains customer details, order history, and total spending.
4. **Sales Representatives** – Holds sales rep performance metrics, targets, and assigned regions.

Step 2: Data Analysis Based on Key Questions

Once the data model is established, analysis will be performed to answer critical business questions, including:

- **Sales Performance Analysis:**
  - What is the total revenue generated within a given period?
  - Which regions and sales reps contribute the most to total sales?
  - What are the best-selling and worst-selling products?
- **Customer Insights:**
  - Who are the top customers based on spending?
  - What is the average order value and frequency of purchases?
  - Which region has the most repeat customers?
- **Product Performance:**
  - Which product category generates the highest revenue?
  - Are there any underperforming products that need promotional strategies?
- **Sales Rep Evaluation:**
  - Which sales representatives have met or exceeded their targets?
  - Is there a relationship between the number of transactions and total sales per rep?
- **Trend and Forecasting Analysis:**
  - What are the monthly or seasonal sales trends?
  - Can past sales data help predict future revenue?

Step 3: Visualization & Dashboard Development

Using the structured data model, an **Excel dashboard** will be built to display:

- KPI summary (Total Sales, Orders, Best Sales Rep)
- Sales trends over time (Line Chart)
- Sales by region and product category (Bar & Pie Charts)
- Customer and Sales Rep leaderboards (Tables)