

Lab Manual

Retail Sales Data Analysis

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Objective:

The company wants to analyze its sales data, understand the performance of different products, and generate insights using Power BI. You will connect to the data source, model it, create visualizations, and share your insights with the team.

Problem Statement:

- Connect to a retail sales dataset in Power BI.
- Model the data for effective analysis.
- Create visualizations to understand product performance across different regions.
- Use Power BI features such as filters, slicers, and drill-throughs for deeper insights.
- Generate a sales performance report and share insights with stakeholders.

Requirements:

- Power BI Desktop installed.
- A retail sales dataset in `.csv` or `.xlsx` format.

Procedure:

1. Load Sales Data into Power BI

Open Power BI Desktop.

Click on `Home > Get Data` and select the data file.

Load the dataset into Power BI.

2. Data Modeling

Check data types and clean data if necessary.

Create relationships between tables if using multiple datasets.

Add calculated columns or measures using DAX for better analysis.

3. Create Visualizations

Use bar charts to compare product sales across regions.

Apply pie charts to show sales distribution among different products.

Utilize line charts to visualize sales trends over time.

4. Use Filters and Slicers

Add slicers to filter data by `Region` and `Sales Representative`.

Apply filters to focus on specific time periods or products.

5. Generate Insights and Share Reports

Summarize key findings on a Power BI dashboard.

Export reports or share insights through Power BI Service.

Output:

By utilizing Power BI, businesses can gain deeper insights into sales data, allowing for data-driven decision-making and improved business strategies.

A Power BI dashboard with interactive visualizations.

A sales performance analysis report highlighting trends and key metrics.

Insights on product perform