

Project: Supermarket Sales Performance Dashboard

Project Overview:

In this one-week project, you will create an interactive sales performance dashboard using Power BI. The goal is to analyze and visualize the sales data to derive insights and help the supermarket make data-driven decisions. You'll explore various aspects of the dataset, create meaningful visualizations, and enable interactivity for users to gain insights from the data.

Week's Goals:

Day 1: Data Import and Cleaning

1. Download the Supermarket Sales dataset.
2. Import the dataset into Power BI.
3. Perform data cleaning tasks, including handling missing values, removing duplicates, and ensuring data types are correct.

Day 2: Data Modeling and Relationships

4. Create a data model by defining relationships between tables (e.g., Sales, Products, Customers).
5. Define appropriate hierarchies (e.g., date hierarchy).
6. Create calculated columns or measures for key metrics (e.g., Total Sales, Profit).

Day 3: Basic Visualizations

7. Design a dashboard layout with relevant visuals:
 - Sales over time (line chart or area chart).
 - Product categories (bar chart).
 - Customer types (pie chart).
 - Gender distribution (donut chart).

Day 4: Advanced Visualizations

8. Add advanced visuals to your dashboard:
 - Sales by branch and city (map or filled map).
 - Customer rating distribution (histogram or box plot).
 - Cost of goods sold (COGS) vs. Gross Income (scatter plot).

Day 5: Interactivity and Insights

9. Enable interactivity in your dashboard:
 - Add slicers and filters (e.g., branch, date range).
 - Implement drill-through functionality for more detailed views.
 - Create tooltips for insights and explanations.

Day 6: Final Touches

10. Review and fine-tune your dashboard layout and visuals for aesthetics and usability.
11. Test your dashboard's responsiveness to user interactions.
12. Document your work, including any challenges you faced and how you overcame them.

Day 7: Presentation and Documentation

13. Discuss the insights you gained from the data and how your dashboard can help the supermarket make informed decisions.
14. Document your project's key findings, the steps you took, and any improvements or future enhancements you suggest.

This project will give you hands-on experience in data analysis, data visualization, and interactive dashboard creation using Power BI. It will also help you develop valuable skills for presenting your insights effectively.