

# Day 1 Project Documentation: Retail Sales Dashboard

## 1. Overview

This document summarizes the activities and learning from Day 1 of the Retail Sales Dashboard project. The goal was to explore SQL, Power BI, and data visualization concepts while building a professional project portfolio.

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## 2. Tools & Technologies Explored

- **SQL (MySQL Workbench):** Learned data cleaning, formatting, and writing aggregation queries.
  - **Power BI:** Explored dashboard creation, KPIs, and interactive visualizations.
  - **Excel/CSV:** Used as the dataset source (Superstore dataset).
  - **GitHub:** Learned folder structuring, version control, and documentation upload.
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## 3. Learning on Day 1

### 1. SQL:

2. Imported CSV datasets into MySQL.
3. Learned to clean data: handling duplicates, null values, and date formatting.

### 4. Wrote queries for:

- Top customers by sales
- Top products by sales
- Sales by category & region
- Discount analysis
- Profit margin calculations

### 5. Power BI:

6. Connected SQL database to Power BI.
7. Created KPIs: Total Sales, Profit, Quantity, Average Discount.
8. Added interactive slicers: Year, Region, Category.

### 9. Built visuals:

- Sales & Profit trend (Line chart)
- Category-wise performance (Bar chart)
- Top 10 products (Column chart)
- Profit Margin by Region (Bar chart)

- Sales vs Profit correlation (Bubble chart)

#### 10. GitHub:

11. Created a professional repository: `retail-sales-dashboard`
12. Structured folders for SQL, Power BI, and documentation.
13. Uploaded files and images to showcase project progress.

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## 4. Project Details

**Project Name:** Retail Sales Dashboard

**Objective:** To analyze retail sales data and provide insights into revenue, profit, discounts, and customer behavior using SQL and Power BI.

**Dataset:** Superstore dataset (CSV)

**Repository Structure:**

```
retail-sales-dashboard/  
├── README.md  
├── sql/  
│   └── superstore_queries.sql  
├── powerbi/  
│   ├── dashboard_screenshot1.png  
│   └── dashboard_screenshot2.png  
└── docs/  
    └── project_documentation.pdf
```

**Key Insights:** - Technology category generated the highest revenue; Furniture had lower profit margins. - Discounts above 20% significantly reduced profits. - Top 10 products contributed major revenue. - Certain regions were consistently more profitable.

**Outcome:** An interactive, professional Power BI dashboard that allows filtering by year, region, or category to track sales, profit, and discount trends effectively.

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## 5. Summary

Day 1 focused on learning SQL for data cleaning and aggregation, exploring Power BI for interactive dashboards, and structuring the project professionally on GitHub. This forms the foundation for future improvements and additional analytics.