

# Project: Retail Sales Performance Analysis & Forecasting

**Tools Used:** Excel, SQL, Python, Power BI

**Duration:** [23<sup>th</sup> June 2024 – 21<sup>th</sup> July 2025]

**Role:** Data Analyst (Academic Project)

## Project Summary:

Conducted an end-to-end data analysis project on a retail sales dataset to uncover business insights, improve decision-making, and forecast future performance using modern data tools.

## Key Responsibilities:

- **Data Cleaning & Exploration in Excel:**
  - Cleaned raw sales data, removed duplicates, and handled missing values.
  - Created pivot tables to analyse key metrics such as sales by region, category, and product performance.
- **Data Management in SQL:**
  - Imported data into a relational database and wrote SQL queries to extract key business insights.
  - Performed aggregations to identify top-performing products, high-value customers, and monthly revenue trends.
- **Exploratory Data Analysis & Forecasting in Python:**
  - Used Pandas, Matplotlib, and Seaborn for in-depth data exploration and visualizations.
  - Applied statistical models and time series forecasting (ARIMA/Linear Regression) to predict future sales.
- **Dashboard Design in Power BI:**
  - Developed an interactive dashboard displaying KPIs like total sales, profit, and orders.
  - Included dynamic filters (by region, product category, date) and trend analysis visuals.

## Outcome & Impact:

- Identified underperforming products and high-profit regions, helping in strategy optimization.
- Forecasted next-quarter sales to aid in inventory planning.
- Strengthened hands-on experience across key tools used in data and financial analysis.

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**Project Link:** <https://github.com/abhijeet-kumar-0042/Retail-Sales-Performance-Analysis-Forecasting>