

Power BI Capstone Project – Retail Sales & Logistics

Project Background

You are hired as a Data Analyst by a growing national retail chain with 200+ stores. The company is looking to better understand its performance across Sales, Shipping, Inventory, and Store Management. You are expected to prepare an end-to-end dashboard that helps leadership make data-driven decisions.

Project Objective

Analyze sales, shipping, store operations, and inventory levels to identify trends, issues, and opportunities for optimization.

Available Datasets

- 1 Sales.csv – Order-level data (ProductCategory, Quantity, UnitPrice, Discount, Revenue, Profit)
- 2 Shipping.csv – Shipment details for each order (ShippingMode, Carrier, Cost, Delay)
- 3 Stores.csv – Store metadata (Region, StoreType, OpeningDate, City, State)
- 4 Inventory.csv – Stock levels and restocking information (StoreID, ProductCategory, SupplierID)

Analysis Questions

- 1 What are the monthly sales and profit trends across all stores?
- 2 Which cities and stores are generating the most revenue?
- 3 What are the profit margins across different product categories?
- 4 Which stores are offering the highest average discounts?
- 5 Which shipping carriers have the highest delay rates?
- 6 What is the average shipping cost by region and shipping mode?
- 7 How many shipments were delayed beyond the promised SLA?
- 8 What's the average time between order date and ship date?
- 9 Which stores are facing frequent understock or out-of-stock conditions?
- 10 What's the inventory turnover ratio by store and category?
- 11 Which suppliers are most associated with delayed restocking?
- 12 Are older stores performing better than newer ones?
- 13 Which store regions are outperforming or underperforming?
- 14 Which customers are the most profitable (LTV)?
- 15 What are the most popular product categories per region?
- 16 What are the repeat vs new customer purchase patterns?

Dashboard Requirements

- 1 Executive Summary – KPI Cards (Total Sales, Profit, Avg. Discount, On-time Delivery %)
- 2 Sales Dashboard – Sales & profit by region, product category, month, and store
- 3 Shipping Dashboard – Carrier performance, cost vs delay, mode-wise shipping stats
- 4 Inventory Dashboard – Stock alerts, restocking schedule, overstock/understock heatmaps

Additional Features (Bonus)

- 1 Use Bookmarks for dashboard-level navigation
- 2 Drillthrough pages (e.g., Store-level or Category-level deep dive)
- 3 Slicers for Region, StoreType, ProductCategory, Year-Month
- 4 Smart Narratives for KPI summaries
- 5 Geo Map (State-wise or City-wise Sales using Stores.csv)