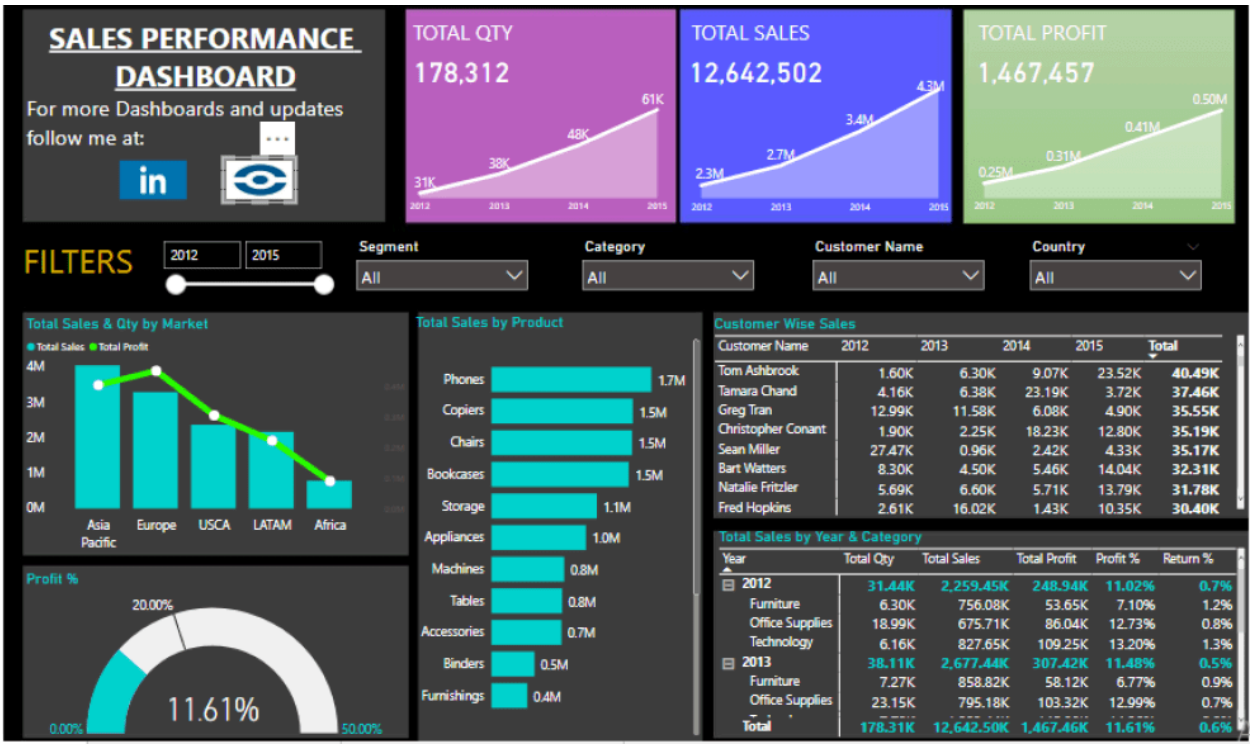
PowerBI Project

1. **Data Collection (CSV, SQL, or API)**
    - Get sales data from **CSV files, SQL database, or an API**.
    - Tables to include:
        - **Sales Transactions**: `Order ID, Date, Product ID, Customer ID, Store ID, Quantity, Revenue`
        - **Products**: `Product ID, Name, Category, Price, Cost`
        - **Customers**: `Customer ID, Name, Age, Location, Loyalty Score`
        - **Stores**: `Store ID, Location, Store Type`
        - **Calendar**: `Date, Year, Month, Quarter`
2. **Data Cleaning & Transformation (Power Query)**
    - Remove duplicates, nulls, and unnecessary columns.
    - Convert data types (e.g., Dates, Currency).
    - Add new calculated columns if needed (e.g., **Profit Margin = Revenue - Cost**).
    - Standardize formats (e.g., "New York" vs "NY").
3. **Data Modeling (Relationships & Hierarchies)**
    - **Relationships:**
        - `Sales Transactions` → Linked with `Products`, `Customers`, `Stores`, and `Calendar`
    - **Hierarchies:**
        - **Date Hierarchy**: Year → Quarter → Month → Week
        - **Product Hierarchy**: Category → Sub-category → Product Name
        - **Geographical Hierarchy**: Country → State → City → Store
4. **Creating DAX Measures**
    - **Total Revenue**
        - `Total Revenue = SUM(Sales[Revenue])`
    - **Total Profit**
        - `Total Profit = SUM(Sales[Revenue]) - SUM(Sales[Cost])`
    - **Profit Margin (%)**
        - `Profit Margin % = DIVIDE([Total Profit], [Total Revenue], 0) * 100`
    - **Average Order Value**
        - `Avg Order Value = DIVIDE([Total Revenue], COUNT(Sales[Order ID]), 0)`
    - **Customer Retention Rate**
        - `Returning Customers = CALCULATE(DISTINCTCOUNT(Sales[Customer ID]), FILTER(Sales, Sales[Order Date] >= TODAY() - 365))`

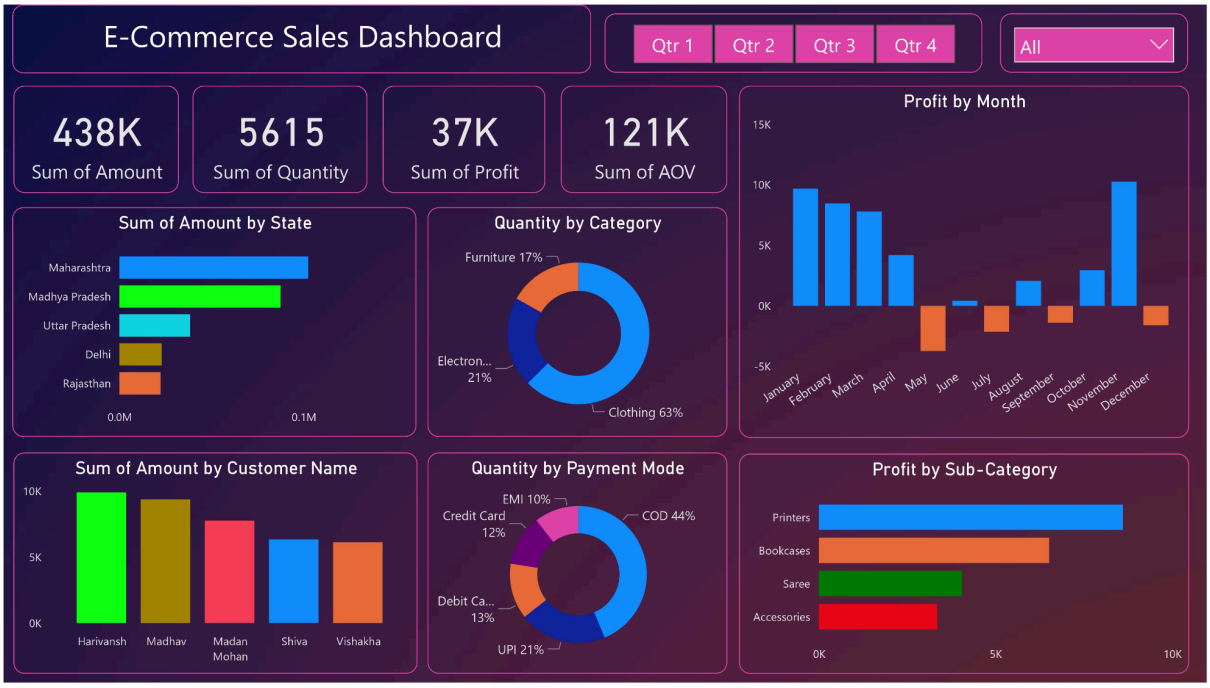
5. **Creating Power BI Sales Dashboard (Visuals)**

Visualization	Purpose
KPI Cards	Show **Total Sales, Profit, Customers, Orders**
Bar Chart	Sales by **Product Category**
Line Chart	Monthly **Sales Trend**
Pie Chart	**Top 5 Customer Segments**
Map	Sales by **Country/State**
Table	**Customer Sales Summary**
Slicer	Filter by **Year, Region, Product Category**

6. **Power BI Sales Dashboard reference image**



7. Images for more practice with other datasets


E-Commerce Sales Dashboard
Qtr 1
Qtr 2
Qtr 3
Qtr 4
All
438K
Sum of Amount
5615
Sum of Quantity
37K
Sum of Profit
121K
Sum of AOV
Profit by Month
15K
10K
5K
0K
-5K
January
February
March
April
May
June
July
August
September
October
November
December
Sum of Amount by State
Maharashtra
Madhya Pradesh
Uttar Pradesh
Delhi
Rajasthan
0.0M
0.1M
Quantity by Category
Furniture 17%
Electron... 21%
Clothing 63%
Sum of Amount by Customer Name
10K
5K
0K
Harivansh
Madhav
Madan Mohan
Shiva
Vishakha
Quantity by Payment Mode
EMI 10%
Credit Card 12%
COD 44%
Debit Ca... 13%
UPI 21%
Profit by Sub-Category
Printers
Bookcases
Saree
Accessories
0K
5K
10K


Super Store Sales Dashboard
Central
East
South
West
Orders
22K
Sales
1.6M
Profit
175K
Ship Days
4
Sum of Sales and Sum of Profit by State
NORTH AMERICA
Microsoft Bing
© 2023 Microsoft Corporation
Sum of Sales by Payment Mode
Cards 22%
COD 43%
Online 35%
Monthly Sales by YoY
Year 2019 2020
20K
0K
January
February
March
April
May
June
July
August
September
October
November
December
Sales by Ship Mode
Standard ... 0.91M
Second Cl... 0.31M
First Class 0.24M
Same Day 0.10M
Sum of Sales by Region
South 16%
West 33%
Central 22%
East 29%
Monthly Profit by YoY
Year 2019 2020
0.2M
0.0M
Sales by Category
Office Sup... 0.64M
Technology 0.47M
Furniture 0.45M
Sales by Sub-Category
Phones 0.20M
Chairs 0.18M
Binders 0.17M
Storage 0.15M
Sum of Sales by Segment
Home Office 19%
Consumer 48%
Corporate 33%

8. Why This Project is Industry-Ready?

- Covers End-to-End Power BI Workflow – From data collection, cleaning, transformation, modeling, DAX, and visualization to dashboard creation.
- Uses Business-Centric Data – Sales, revenue, profit, customer behavior, and store performance are key metrics in business analytics.

- Includes Advanced Power BI Concepts – Relationships, DAX measures, and interactivity through slicers.
- Mimics Real-World Business Cases – KPI tracking, sales trends, customer segmentation, and performance analysis.

9. **How This Project Helps in a Job Search?**
    - Resume Boost – Adding this project to the portfolio showcases practical Power BI skills.
    - Interview Ready – Demonstrating this dashboard in an interview proves the ability to handle data, solve problems, and create insights.
    - Teamwork & Collaboration – Employers value candidates who can work in teams, communicate findings, and manage responsibilities.
    - Industry-Used Skills – This project directly maps to what analysts do in companies (Retail, E-commerce, Finance, etc.).