Amazon Sales Analysis – Power BI Dashboard

1. Objective

The main goal of this project is to analyze Amazon sales data to gain insights into key metrics like revenue, profit, and product performance. The dashboard helps monitor trends and compare sales performance with the previous year.

2. Dataset

- **Source:** Amazon Sales Dataset
- **Key Columns:**
    - Order ID – Unique identifier for each order
    - Date – Order date
    - Status – Current status of the order
    - Fulfilment – Fulfilment type (Amazon / Merchant)
    - Sales Channel – Online or Offline sales
    - Ship State – State to which the product was shipped
    - Category – Product category
    - Amount – Sales amount
    - Quantity – Units sold
    - Profit – Profit from the order

3. Data Cleaning & Preparation (Power Query)

1. **Removed unnecessary columns** – Only kept columns relevant for analysis.
2. **Changed data types** – Ensured dates, numbers, and categories have correct formats.
3. **Handled missing values** – Removed or replaced nulls.
4. **Created new calculated columns**:
    - Year → Extracted from Date
    - Month → Extracted from Date
    - Sales LY → Sales from Last Year using DAX

4. Measures & Calculations (DAX)

- **Total Sales:**

Total Sales = SUM('Amazon Sales'[Amount])

- **Total Profit:**

Total Profit = SUM('Amazon Sales'[Profit])

- **Quantity Sold:**

Total Quantity = SUM('Amazon Sales'[Quantity])

- **Sales LY (Last Year):**

Sales LY = CALCULATE([Total Sales], SAMEPERIODLASTYEAR('Amazon Sales'[Date]))

- **YOY Growth %:**

YOY Growth % =

DIVIDE(([Total Sales] - [Sales LY]), [Sales LY], 0)

5. Dashboard Design

- **KPIs Cards:**
    - Total Sales
    - Total Profit
    - Total Quantity
    - YOY Growth %
- **Charts:**
    - Monthly Sales Trend
    - Sales by Category
    - Top 10 States by Sales
    - Profit by Fulfilment Type
- **Filters/Slicers:**
    - Year
    - Category
    - State

6. Insights

- Found peak sales months and underperforming months.
- Identified top product categories driving revenue.
- Compared sales performance year-over-year.

7. Tools & Skills Used

- **Power BI Desktop** for dashboard creation
- **DAX** for calculated measures
- **Power Query** for data cleaning
- **Data Visualization** best practices