

# **Amazon Sales Data Analysis Report**

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## Objective

**To create a report on Sales Trend Year-wise, Month-wise to understand the factors directly affecting the sales and gain competitive advantage acquiring good chunk of market share.**

# Data Description

The dataset consists of following columns:

1. **Discount Amount:** Discount on every ordered item
2. **Date:** Ordered Date
3. **Item:** Name of the item ordered
4. **List Price:** The price at which the item is listed.
5. **Sales Amount:** Total amount of sales for particular item.
6. **Sales Cost Amount:** Amount spent for conversion of Sale
7. **Sales Margin Amount:** Margin amount on each item sold
8. **Sales Quantity:** Total number of items sold
9. **Sales Representative:** Representative under whom sale is completed.

# Tools Used



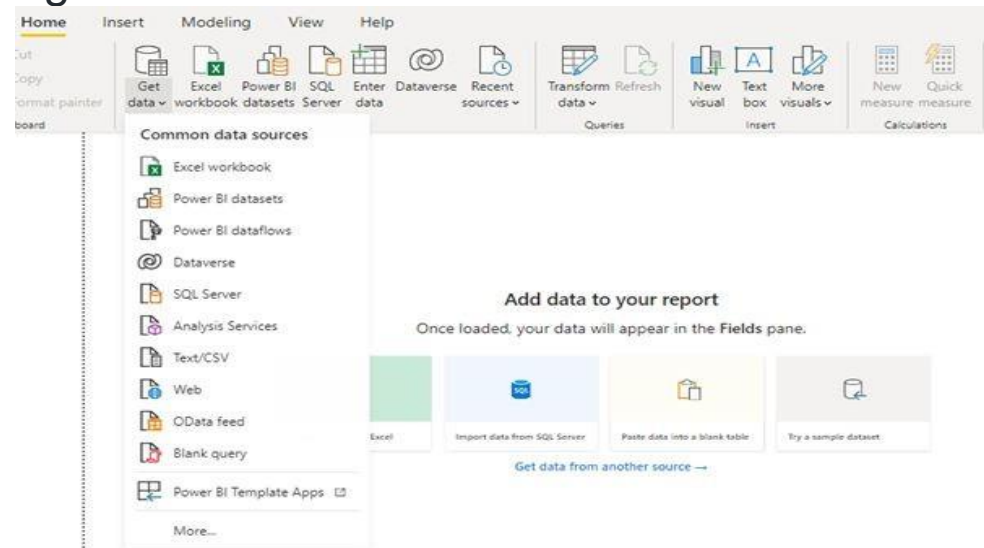
- **Programming Language: Python**
- **Python Libraries: NumPy, Pandas**
- **Business Intelligence Tools: Excel, Power BI**

# Data Import & Data Cleaning

- ▶ Import the given excel file in Jupyter Notebook for cleaning
- ▶ Data Cleaning is a crucial as the dataset has impurities such as missing values or incorrect data types.
- ▶ We used Pandas library in Python to impute/remove missing values and make dataset ready for creating visual reports.

# Data Importing in Power BI

- ▶ In Power BI, we have options to connect to our dataset via various options such as SQL Server, MYSQL, excel or CSV files.
- ▶ We have our clean data in CSV file. We will import it in Power BI with import data option and start working with it.



# Data Transformation in Power BI

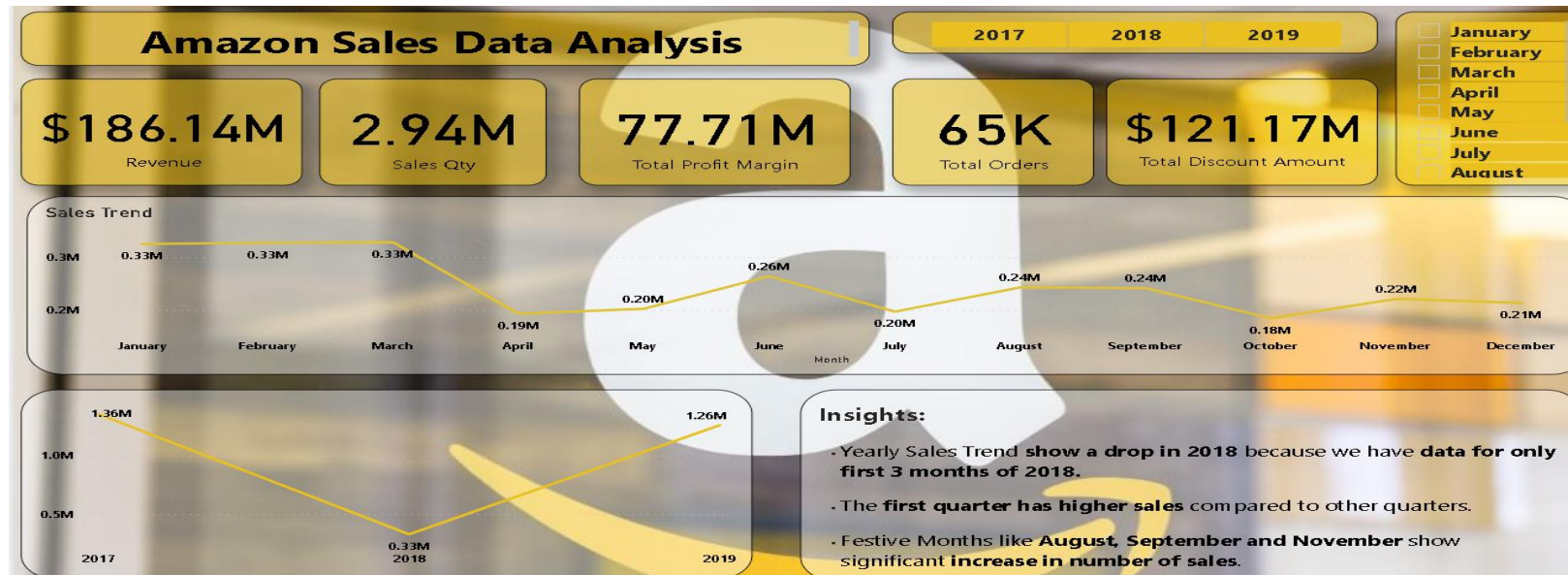
- ▶ Once the data is imported in PowerBI, we do 'transform data' i.e. using Power Query editor to perform certain operation on to the data
- ▶ Ensuring correct data types, creating custom/conditional columns are some fundamental

The screenshot displays the Power Query Editor window for a dataset named 'Amazon Sales Data Analysis'. The main area shows a table with the following columns: CustKey, DateKey, Discount Amount, Invoice Date, Invoice Number, and Item Class. The data is organized into rows, with the first row being a header. The 'Applied Steps' pane on the right indicates the sequence of transformations applied to the data, including 'Source', 'Promoted Headers', 'Removed Columns', 'Changed Type', 'Inserted Year', 'Inserted Month', and 'Inserted Quarter'.

CustKey	DateKey	Discount Amount	Invoice Date	Invoice Number	Item Class
10002220	14/07/2017	368.79	14/07/2017	100233	P01
10002220	17/10/2017	109.73	17/10/2017	116165	P01
10004516	27/05/2017	96627.94	27/05/2017	103341	P01
10007866	03/09/2017	371.014	03/09/2017	100403	P01
10009356	18/06/2017	608.08	18/06/2017	105481	P01
10009356	18/06/2017	424.8	18/06/2017	105481	P01
10009356	18/06/2017	13492.8	18/06/2017	105481	P01
10009356	18/06/2017	10481.1	18/06/2017	105481	P01
10009356	18/06/2017	404.1465	18/06/2017	105481	P01
10009606	16/09/2017	1287.3476	16/09/2017	100445	P01
10009606	16/09/2017	4764.33	16/09/2017	100445	P01
10009633	10/06/2017	-526.64	10/06/2017	104708	P01
10009633	20/08/2017	0	20/08/2017	100379	P01
10009645	17/11/2017	0	17/11/2017	100684	P01
10009652	14/05/2017	91	14/05/2017	102256	P01
10009907	06/11/2017	786.6	06/11/2017	117815	P01
10010884	19/06/2017	499.44	19/06/2017	105615	P01
10010884	08/07/2017	409.77	08/07/2017	107052	P01
10010884	08/07/2017	186.43	08/07/2017	107052	P01
10010884	08/07/2017	349.78	08/07/2017	107052	P01
10010884	08/07/2017	525.53	08/07/2017	107052	P01

# Building Visuals in Power BI

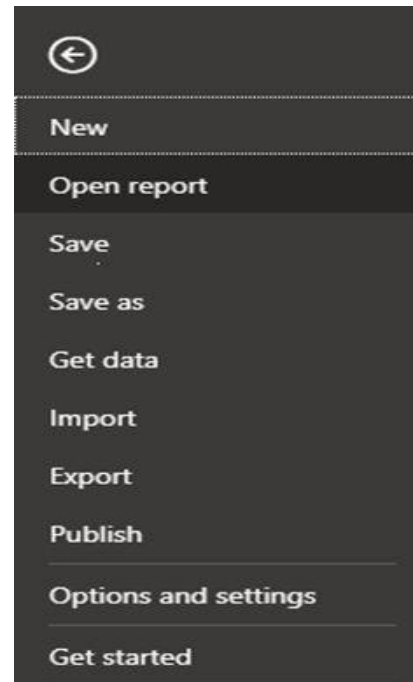
- ▶ A report is created in Power BI with various charts depicting Sales insights for particular year, month and so on.
- ▶ We created Slicers, Data Cards, Sales Trend for Year and Month, Table for top ordered item, top performing sales representatives and relationship between different variables.





# Deployment in Power BI

- In Power BI, You can directly publish the report online to your workstation. If you don't have the work email-id then you can save the file in '.pbix' version. This helps another viewer see your work and understand the story or insights you're communicating.



Thank You