

# Mini Project - Sales Dashboard Using Excel

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# 1. Abstract

In today's competitive business environment, understanding sales performance is essential for making informed decisions. This Sales Dashboard project aims to consolidate and visualize key sales metrics, enabling users to track performance, identify trends, and make data-driven decisions. The dashboard aggregates data from various sources and presents it in a visually engaging format using charts, tables, and interactive filters.

Key features of this dashboard include real-time updates, monthly and quarterly sales comparisons, product-wise breakdown, and geographical insights. Additionally, it offers predictive insights through trend analysis, helping stakeholders forecast future sales and adjust strategies. Built using [Technology Stack, e.g., Power BI, Tableau, Excel, or a webbased framework like React, D3.js, and Node.js], the dashboard ensures accessibility and usability for team members across departments, from marketing to finance.

This project focuses on the development of an interactive Sales Dashboard that allows for comprehensive analysis of sales performance data across various categories, time periods, and regions. The dashboard provides users with visual representations of key performance indicators (KPIs) such as sales by category, profit trends over time, top-performing customers, and regional sales data. Using Excel's data visualization tools like charts, graphs, and pivot tables, the dashboard enablesusers to make data-driven decisions by providing a clear overview of sales trends, customer contributions, and product performance.

## 2. Introduction

#### **2.1 PROJECT OVERVIEW:**

The Sales Dashboard project is designed to create a comprehensive, data-driven platform for visualizing and analyzing sales metrics in real-time. By consolidating key sales data from various sources into one interactive and easily accessible dashboard, this project seeks to streamline the process of sales reporting, monitoring, and strategic planning. The dashboard will feature data visualizations, trend analysis, and forecasting tools, allowing stakeholders to track performance indicators such as revenue growth, product sales, customer acquisition, and regional trends.

The project leverages tools like Microsoft Excel to build a user-friendly interface that facilitates quick insights and decision-making. The ultimate goal is to support agile and informed business decisions, helping the organization remain competitive in the market and better anticipate future sales demands.

## 2.2 Objectives and Goals:

The Project have various objectives and Goals. Some of them are:

- **i.** Centralized Sales Data Aggregating data from multiple sources (e.g. spreadsheets) into one platform toprovide a unified view of sales metrics.
- **ii. Real-Time Monitoring -** Enable real-time updates of sales data, allowing teams to monitor performancemetrics and make timely adjustments based on current data.
- **iii.** Enhanced Data Visualization Develop an intuitive, visually engaging dashboard with interactive charts, graphs, and tables to represent sales trends and comparisons.
- iv. **Detailed Trend Analysis** Include tools for analyzing sales trends over time, enabling stakeholders to identifypeak sales periods, growth areas, and potential challenges.
- v. Forecasting and Predictive Analytics Integrate forecasting models to project future sales, supporting proactive strategies in resource allocation, inventory planning, and marketing efforts.
- vi. Customizable Reports and Filtering Allow users to filter data by region, product category, sales team, and time period to create customized views and reports.
- **vii. Improved Decision-Making -** Facilitate informed decision-making by presenting comprehensive and accuratesales insights, helping the organization align sales strategies with business goals.
- viii. Cross-Departmental Accessibility Ensure accessibility across departments (e.g., sales, marketing, finance)to encourage data-driven collaboration and alignment

## 3. Aim

The primary aim of creating an Excel Dashboard is to provide a centralized, interactive, and visually appealing platform for monitoring and analyzing key business metrics.

By harnessing the versatility and accessibility of Excel, the dashboard enables users to track performance, identify trends, and make data-driven decisions in real-time. It's particularly suited for small to medium-sized data sets, making it an efficient choice for personal and departmental reporting needs.

The dashboard simplifies complex data by consolidating it into intuitive visual representations, allowing users across skill levels to engage with the data meaningfully.

#### 3.1 Excel Tools Used:

Some of the Excel Tools used for creating Sales Dashboard are:

- i. Pivot Tables and Pivot Charts Summarize large data sets quickly and interactively, with drill-downcapabilities for detailed insights.
- **ii.** Conditional Formatting Highlight specific data points, trends, and anomalies using colors, icons, anddata bars, allowing for easy identification of key metrics.
- **iii. Slicers** Enhance interactivity by providing buttons that filter data in Pivot Tables and Pivot Charts instantly.
- iv. Charts and Graphs (e.g., Bar, Line, Pie, and Combo Charts) Visualize trends, comparisons, and distributions across data points, making the dashboard more engaging and informative.
- v. Named Ranges Simplify complex formulas and enhance readability by using named ranges for specificdata sets within the workbook.
- vi. Data Validation (Drop-Down Lists) Facilitate dynamic filtering by allowing users to select specificcriteria (e.g., regions, products, time frames) to view customized data views.
- vii. Formulas and Functions (e.g., VLOOKUP, INDEX-MATCH, IF, SUMIF, AVERAGEIF) Perform data calculations and aggregations to create dynamic content within the dashboard.
- **viii. Macros (Optional)** Automate repetitive tasks and enhance functionality, particularly when refreshingdata or performing calculations.

#### 3.2 Data Visualization Features:

- i. **Dynamic and Interactive Charts** Various chart types (line, bar, pie, area, and combo charts) displaydata visually, allowing users to analyze patterns and changes over time.
- **ii. KPI Indicators** Display performance indicators such as revenue, growth rate, or customer acquisitionusing traffic lights, arrows, or gauge charts to signify progress.
- **iii.** Trend Lines and Sparklines Use trend lines within charts and sparklines in cells to show datamovement over time, helping identify trends and seasonal patterns.
- iv. Interactive Filtering with Slicers and Drop-Down Lists Enable users to dynamically adjust views and filter data, making it easy to switch between data perspectives (e.g., regions, product lines).
- v. Heat Maps and Data Bars Highlight key data using color gradients or bars to represent the value intensity, enabling quick visual identification of high and low metrics.
- vi. Pivot Tables with Drill-Down Capabilities Allow for detailed data exploration by enabling users to expand data categories, showing deeper levels of information.
- vii. Dashboard Navigation and Layout Structured layout with sections and labeled headings enhances readability, guiding users through the data story presented in the dashboard.
- viii. Dynamic Ranges and Auto-Refreshing Set up dynamic ranges so that data updates automatically, ensuring the dashboard reflects the most current information.

# 4. Objective

The objective of creating an Excel Dashboard is to enable efficient, centralized data analysis that is accessible and easy to interpret. The dashboard aims to Present complex data in a concise and visually appealing manner, making itaccessible for users across various roles.

Provide key insights at a glance, helping stakeholders make timely and informed business decisions

Visualize data trends and patterns over specific time periods, allowing teams to recognize opportunities and addresschallenges proactively.

Serve as a shared resource for departments such as sales, marketing, and finance, fostering a unified approach tobusiness performance evaluation.

Automate data aggregation, calculations, and visualizations, reducing manual effort and ensuring accuracy inreporting.

#### 4.1 Overview of the Dataset:

The dataset used for this Excel Dashboard typically includes transactional and summary data relevant to sales or operational performance. Data may be sourced from systems like CRM, ERP, orspreadsheets, and it includes variables such as sales revenue, product categories, customer demographics, and timeframes (e.g., monthly or quarterly).

For a Sales Dashboard, the dataset might cover records over a specific time period (e.g., quarterly or annually) and include various data dimensions (e.g., region, sales team) that help analyze and segment performance. The data shouldideally be cleaned, standardized, and organized in a structured format to facilitate easy integration into the dashboard.

# 4.2 Description of Data Columns:

- **i. ID** A unique identifier for each row or transaction in the dataset. This ID ensures that every entry is distinct and can be referenced easily in analyses.
- **ii. Order ID** A unique identifier for each order placed, which may contain one or multiple items. This is essential for tracking order-level details and linking items to a single transaction.
- **iii.** Customer ID A unique identifier for each customer, allowing for the tracking of customer purchasehistory, segmentation, and analysis of repeat purchases.
- **iv. Gender** Specifies the gender of the customer (e.g., Male, Female, or Other). Useful for demographicanalysis to understand customer preferences and target marketing efforts.

- v. Age Indicates the age of the customer.
- **vi. Date** Represents the date when the order was placed. This field is crucial for time-based analyses, such as trend identification, seasonality, and sales forecasting.
- vii. Status Shows the current status of the order, such as "Completed," "Pending," "Shipped," "Cancelled," or "Returned." Useful for tracking order fulfillment, identifying issues, and measuring customer satisfaction.
- **viii. Channel -** Indicates the sales channel through which the order was placed (e.g., Online, In-Store, Mobile App). This helps analyze channel performance and optimize resource allocation.
- **ix. SKU** Stands for "Stock Keeping Unit" and is a unique identifier for each product variant. The SKU allows tracking of inventory and sales performance at the item level.
- **x.** Category Specifies the broader category of the product (e.g., Electronics, Apparel, Home Goods). It enables high-level analysis of product category performance and assists in inventory and marketing strategy.
- **xi. Size** Indicates the size of the product, typically relevant for items like clothing, footwear, or any product with size variations. Useful for understanding demand for various sizes and managing inventory.
- **xii. Quantity** Represents the number of units of each product ordered. This metric is essential for analyzingsales volume, inventory needs, and demand forecasting.
- **xiii. Amount -** The total sales amount for the order or item line, usually calculated as the unit price multipliedby the quantity. Key for tracking revenue and understanding product profitability.
- **xiv.** City Specifies the city where the customer is located or where the order is to be delivered. This is useful for geographic analysis to identify high-demand areas.
- **xv. State** Indicates the state or province of the customer or delivery address, enabling regional analysis and comparisons.
- **xvi. Postal Code** Represents the postal or zip code for the order, which can further refine geographic analysis and assist in logistics planning.
- **xvii.** Country Shows the country of the customer or delivery location, which is essential for multinational sales analysis, market segmentation, and understanding demand by country.
- **xviii. B2B** Stands for "Business-to-Business" and indicates whether the order was made by a business customer (often marked as "Yes" or "No"). This field helps distinguish between individual (B2C) and corporate (B2B) sales, allowing for analysis of different customer segments.

# 5. Dashboard Components

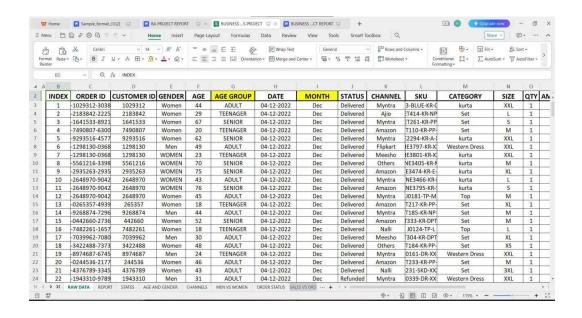
# **Data Cleaning:**

Data Cleaning in Excel refers to the process of identifying, correcting, or removing inaccurate, incomplete, or irrelevant data from a dataset to improve its quality, accuracy, and usability. In Excel,data cleaning ensures that data is consistent, error-free, and ready for analysis or reporting.

# Before cleaning data:

NDE)	ORDER ID	STOMER	RIENDE	AGE	DATE	INNAPPUTATE	SKU	CATEGORY	SIZE	QTY	JRREN	AMOUN	THIP-CIT;HIP-STATIIP	-POSTAL-CO	-COUI	B2B
1	29312-3	1E+06	Vome	44	####	elivere/lyntra-	BLUE-KR	kurta	XXL	1	INR	376	MOHAL PUNJAB	140301	IN	FALSE
2	83842-2	2E+06	Vome	29	####	elivere Ajio	414-KR-N	Set	L	1	INR	1449	JRUGRAHARYANA	122002	IN	FALSE
3	41533-8	2E+06	Vome	67	####	elivere/lyntra	261-KR-F	Set	S	1	INR	453	(OLKAT/EST BENG.	700029	IN	FALSE
4	90807-6	7E+06	Vome	20	####	elivere mazo 1	10-KR-P	Set	M	1	INR	729	IANJAVIAMIL NAD	613007	IN	FALSE
5	93516-4	9E+06	Vome	62	####	elivere/lyntra	294-KR-A	kurta	XXL	1	INR	544	JRUGRAHARYANA	122001	IN	FALSE
6	98130-0	1E+06	Men	49	####	elivere-lipkar3	3797-KR-	'estern Dre	XXL	One	INR	735	MIRAJ MHARASHT	416436	IN	FALSE
7	98130-0	1E+06	W	23	####	elivere/leesh 3	3801-KR-	kurta	XXL	One	INR	735	NGALULARNATAK.	560029	IN	FALSE
8	61216-3	6E+06	W	70	####	elivereOthers	3405-KR	kurta	M	One	INR	435	JRUGRAHARYANA	122001	IN	FALSE
9	35263-2	3E+06	W	75	####	elivere.mazo3	8474-KR-	kurta	XL	One	INR	385	NGALULARNATAK.	562149	IN	FALSE
10	48970-9	3E+06	W	43	####	eliverevlyntral	E3466-KF	kurta	L	One	INR	771	AYAWA HRA PRAC	520002	IN	FALSE
11	48970-9	3E+06	W	76	####	elivere mazo l	E3795-KI	kurta	S	One	INR	517	NANTH KERALA	695018	IN	FALSE
12	48970-9	3E+06	Vome	45	####	elivere/lyntr:	181-TP-I	Тор	M	1	INR	399	RAKONAAMIL NAD	631003	IN	FALSE
13	65357-4	265357	Vome	18	####	elivere mazo 2	217-KR-P	Set	XL	1	INR	786	UWAHA ASSAM	781017	IN	FALSE
14	68874-7	9E+06	Men	44	####	elivere/lyntra	.85-KR-N	Set	M	1	INR	911	NGALULARNATAK.	562125	IN	FALSI
15	42660-2	442660	Vome	52	####	elivere mazo:	33-KR-DI	Set	M	1	INR	967	'DERAB/ELANGAN.	500098	IN	FALSE
16	82261-1	7E+06	Vome	18	####	elivere Nalli (	0124-TP-	Тор	L	1	INR	523	EW DEL DELHI	110062	IN	FALSI
17	39962-7	7E+06	Men	30	####	elivere/leesh	04-KR-DI	Set	XL	1	INR	1115	ubanesv ODISHA	751022	IN	FALSE
18	22488-7	3E+06	Vome	48	####	elivereOther:1	.84-KR-P	l Set	XS	1	INR	563	SIROHRAJASTHAI	307001	IN	FALSE
19	74687-6	9E+06	Men	24	####	elivere/lyntra	161-DR-X	estern Dre	XXL	1	INR	473	<b>MUMBALHARASHT</b>	400097	IN	FALSI
20	44536-2	244536	Vome	46	####	elivere.mazo2	233-KR-P	Set	M	1	INR	545	MRITSA PUNJAB	143001	IN	FALSI
21	76789-3	4E+06	Vome	43	####	elivere Nalli 3	31-SKD-X	Set	3XL	1	INR	1164	UCKNO\FAR PRADI	226024	IN	FALSE
22	43310-9	2E+06	Men	31	####	efunde/lyntra	39-DR-X	estern Dre	XXL	1	INR	743	EW DEL DELHI	110087	IN	FALSI
23	50590-5	950590	Men	30	####	elivere/lyntra1	LO-KR-PP	Set	3XL	1	INR	575	//ADUR/AMIL NAD	625014	IN	FALSE

#### After cleaning data:

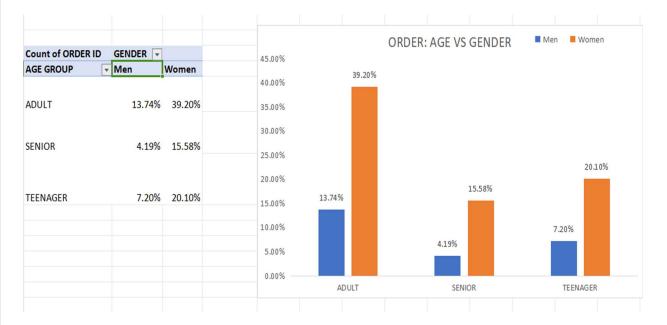


**5.1** Sales by State: A Sales by State Bar Chart visually represents the total sales amount generated from each state. This chart is particularly useful for identifying which states contribute the most to overall revenue, revealing geographic patterns in sales performance.

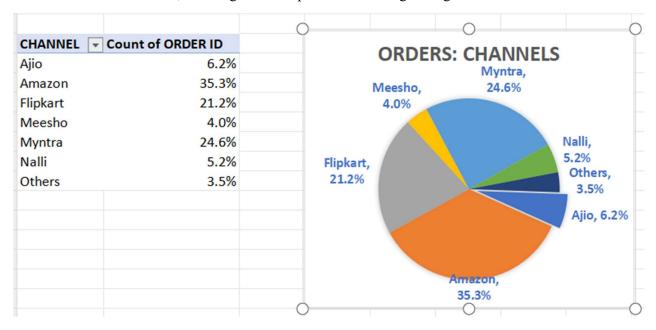


**5.2 Orders : Age vs Gender :** The Orders: Age vs. Gender analysis in a sales dashboard provides insights into the purchasing behaviors of different demographic groups. By visualizing this relationship,

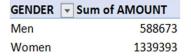
businesses can better understand their customer base and tailor their marketing strategies accordingly.

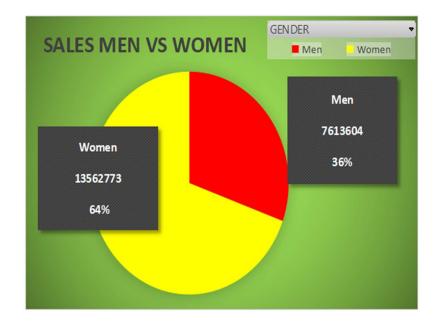


**5.3 Orders: Channel:** The Orders by Channel analysis in an Excel dashboard provides insights into howdifferent sales channels (e.g. Ajio, Amazon, Flipkart, Meesho, Myntra, Nali and other online applications/ sites) contribute to total sales. This analysis is critical for businesses to understand which channels are most effective, allowing them to optimize marketing strategies and resource allocation.



**5.4 Sales by Gender:** The Sales by Gender analysis in an Excel dashboard provides a clear visualization of sales performance based on customer gender. This analysis helps businesses understand the purchasing behavior and preferences of different genders, which can inform marketing strategies, product, development, and sales initiatives.





**5.5 Order Vs Sales :** The Orders vs. Sales analysis in an Excel dashboard provides a comparative view of the number of orders placed and the total sales revenue generated over a specific period. This analysis helpsbusinesses understand the relationship between the volume of orders and the revenue generated, providing insights into sales performance, customer behavior, and operational efficiency.



#### **5.6** Final View of Dashboard:



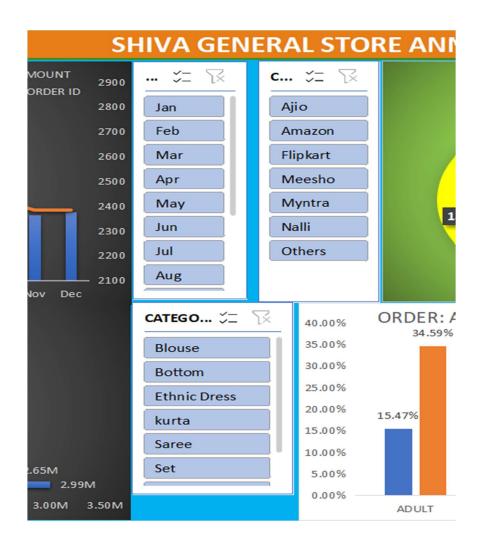
# 6. To-Do List Features

#### 6.1 Slicers:

**Slicers** are a powerful feature in Excel and other business intelligence tools that provide an intuitive way to filter data in a dashboard or report. They enhance the interactivity of dashboards by allowing users to quickly filter and segment data based on specific criteria without the need to navigate through complex menus or dropdown lists.

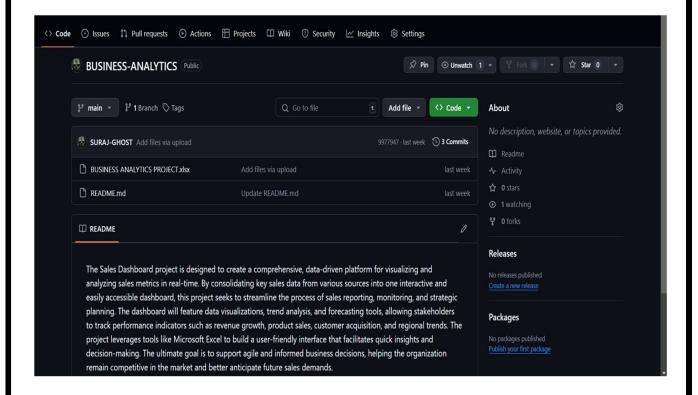
#### **Steps to add slicers:**

- 1. Select your **PivotTable** or **PivotChart**.
- 2. Go to the Insert tab in the ribbon and click on Slicer.
- 3. Choose the fields you want to filter with the slicer and click **OK**.
- **4.** The slicer will appear as a separate object on the worksheet, where you can select or deselectbuttons to filter your data.



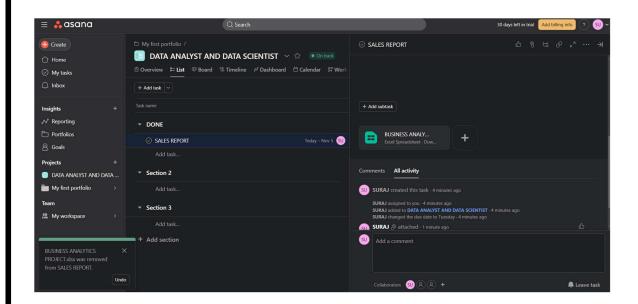
# 7. Online Platforms

#### **7.1** Github:

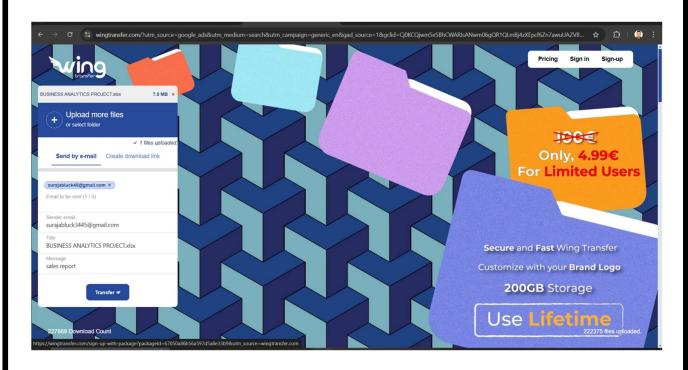


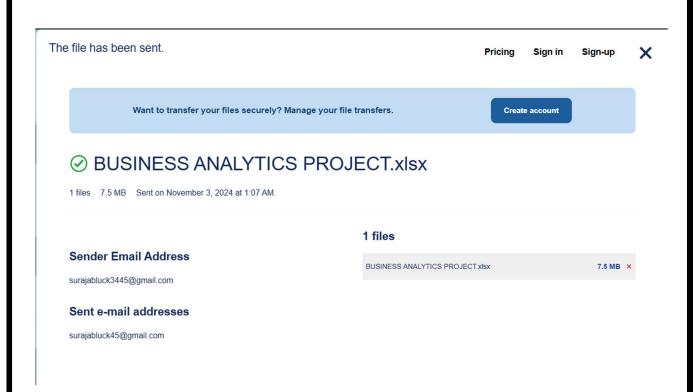
#### 7.2 Asana Portfolio:

Link: https://app.asana.com/0/1208680910879645/1208680910879660



# 7.3 Wing Blog:





# 8. Learning Outcomes Learning Outcomes

#### 8.1 Outcomes:

- **i. Data Visualization :** Understanding how to represent complex data sets visually to convey insights effectively.
- **ii. Data Analysis :** Gaining insights into sales performance through data analysis techniques.
- **iii. Dashboard Development :** Learning the principles of dashboard design, including layout, usability, anduser experience.
- **iv. Integration Skills:** Developing the ability to integrate various data sources into a cohesive dashboard.

v. **Reporting:** Gaining skills in generating reports and sharing insights with stakeholders.

### 8.2 Skills Gained Through the Project :

#### i. Technical Skills:

- **a.** Proficiency in data visualization tools (e.g. Excel).
- **b.** Experience with data manipulation and analysis.

#### ii. Analytical Skills:

- **a.** Ability to interpret sales data and identify trends.
- **b.** Skills in making data-driven decisions based on dashboard insights.

#### iii. Project Management:

- **a.** Experience in planning, designing, and executing a dashboard project.
- **b.** Ability to work collaboratively in a team environment and communicate effectively.

#### 8.3 Future Enhancements and Applications

- 1. **Real-Time Data Updates:** Implementing real-time data feeds for up-to-the-minute sales tracking.
- 2. **Machine Learning Integration:** Utilizing predictive analytics to forecast sales trends and customerbehaviors.
- **3. Mobile Compatibility:** Developing a mobile-friendly version of the dashboard for onthe-go access.
- **4.** Custom Reporting Features: Allowing users to generate custom reports based on specific criteria.

# 9. References - Tools and Resources Used

#### **9.1** Tools:

- ➤ **Microsoft Excel**: Excel was used as the primary tool for building the sales dashboard. It provides a range of data visualization features such as charts, pivot tables, and slicers that are essential for creating an interactive dashboard.
  - ◆ Official Website: Microsoft Excel
- ➤ **Kagggle**: Kaggle was used to download raw file or dataset for a e-commerce store data of sales
  - ◆ Official Website: <a href="https://github.com/">https://github.com/</a>

#### 9.2 Tutorials and Guides:

>	Creating Interactive Dashboards in Excel: A comprehensive guide on building interactive dashboards using Excel, covering the use of charts, slicers, and pivot tables for real-time data analysis.
>	Resource: How to Build a Dashboard in Excel