

TITLE PAGE

DATA SCIENCE PROJECT

SUBMITTED BY: VIKAS GUPTA

REG. NO.: 12316618

SUBMITTED TO: MS. ASHU(UID:23631)

SUBJECT: INTRDOUCTION TO DATA MANAGEMENT

SUBJECT CODE: INT217

**IN PARTIAL FULFILMENT FOR REQUIREMENTS OF THE
AWARD OF THE DEGREE OF
COMPUTER SCIENCE AND ENGINEERING**



CERTIFICATE

This is to certify that VIKAS GUPTA bearing Registration no. 12316618 has completed INT217 project titled, “**ECOMMERCE SALES ANALYSIS**” under my guidance and supervision. To the best of my knowledge, the present work is the result of his/her original development, effort and study.

Signature and Name of the Supervisor

Designation of the Supervisor

School of Computer Science

Lovely Professional University

Phagwara, Punjab.

Date: 15-04-2025

DECLARATION

I, Vikas Gupta, student of Data Science under CSE/IT Discipline at, Lovely Professional University, Punjab, hereby declare that all the information furnished in this project report is based on my own intensive work and is genuine.

Date: 12-04-2025

Registration No. 12316618

Name of the student : Vikas Gupta

ACKNOWLEDGEMENT

I would like to express my sincere gratitude to all those who supported and guided me throughout the completion of this project. First and foremost, I extend my heartfelt thanks to my project guide, I would like to express my sincere gratitude to all those who supported and guided me throughout the completion of this project. First and foremost, I extend my heartfelt thanks to my project guide, Ms. Ashu, for their invaluable support, guidance, and encouragement at every stage of this project.

I am also thankful to the faculty of the CSE, Lovely Professional University, for providing me with the necessary resources and knowledge to carry out this work effectively. Their insights and feedback played a vital role in shaping this report.

I am deeply appreciative of the valuable data and resources provided, which were essential for the analysis and interpretation presented in this project.

Finally, I am grateful to my family and friends for their constant encouragement and moral support throughout the duration of this work.

Name: Vikas Gupta

Reg. NO: 12316618

TABLE OF CONTENT

1. Introduction
2. Problem Statement

3. Objective
4. Source Of The Dataset
5. Analysis of Dataset
6. Conclusion
7. Future Scope
8. References

INTRODUCTION

This project aims to analyze monthly sales and profit data to understand the financial performance of a business over a specific period. By evaluating trends in sales and profit, the report provides insights that can help in making informed business decisions. The dataset includes transactional information such as salespersons, countries, product types, order dates,

PROBLEM STATEMENT:

Understanding monthly performance in terms of sales and profit is crucial for any business. Without a clear analysis, it becomes difficult to identify growth patterns, profitable periods, or areas needing improvement.

OBJECTIVE:

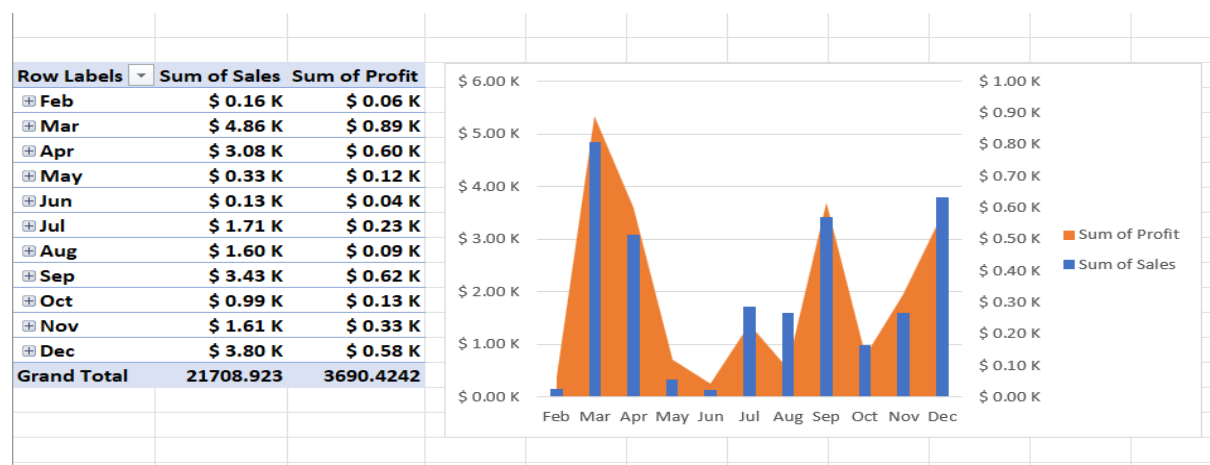
SOURCE OF THE DATASET:

<https://docs.google.com/spreadsheets/d/1L6aBX0uNIzKiJb7JHdkNUile18s9CI4r/edit?pli=1&gid=1589100670#gid=1589100670>

OBJECTIVES:

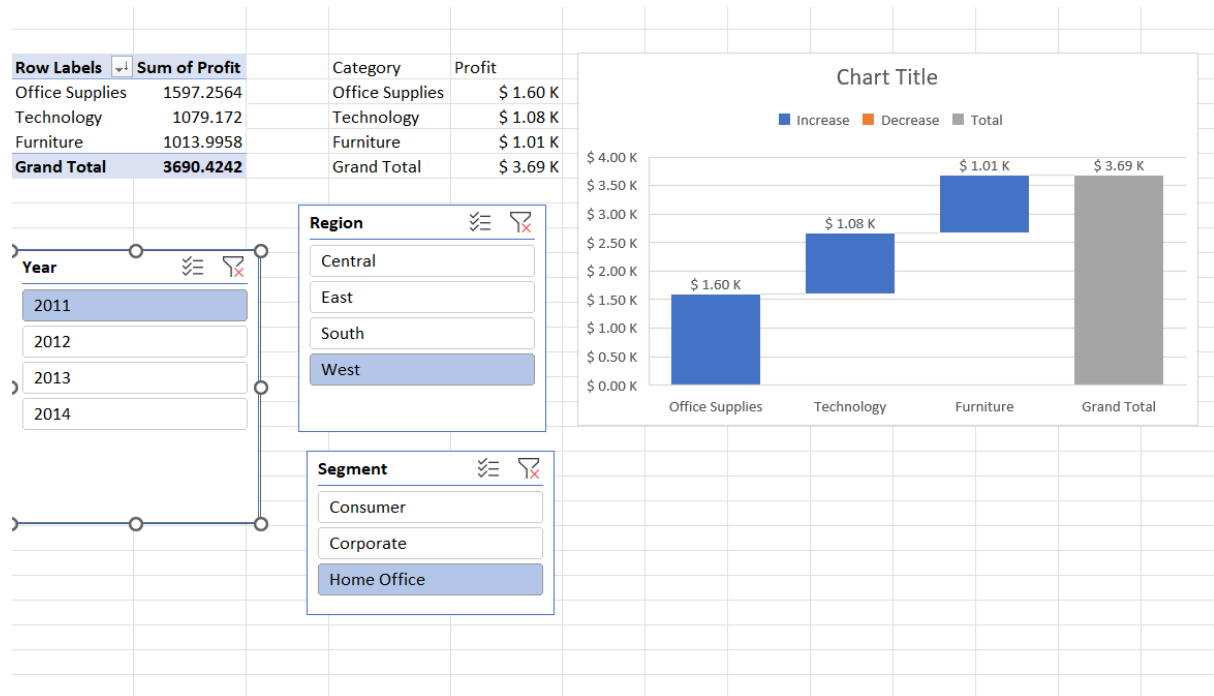
SALES AND PROFIT ANALYSIS

combo chart



CATEGORY WISE PROFIT

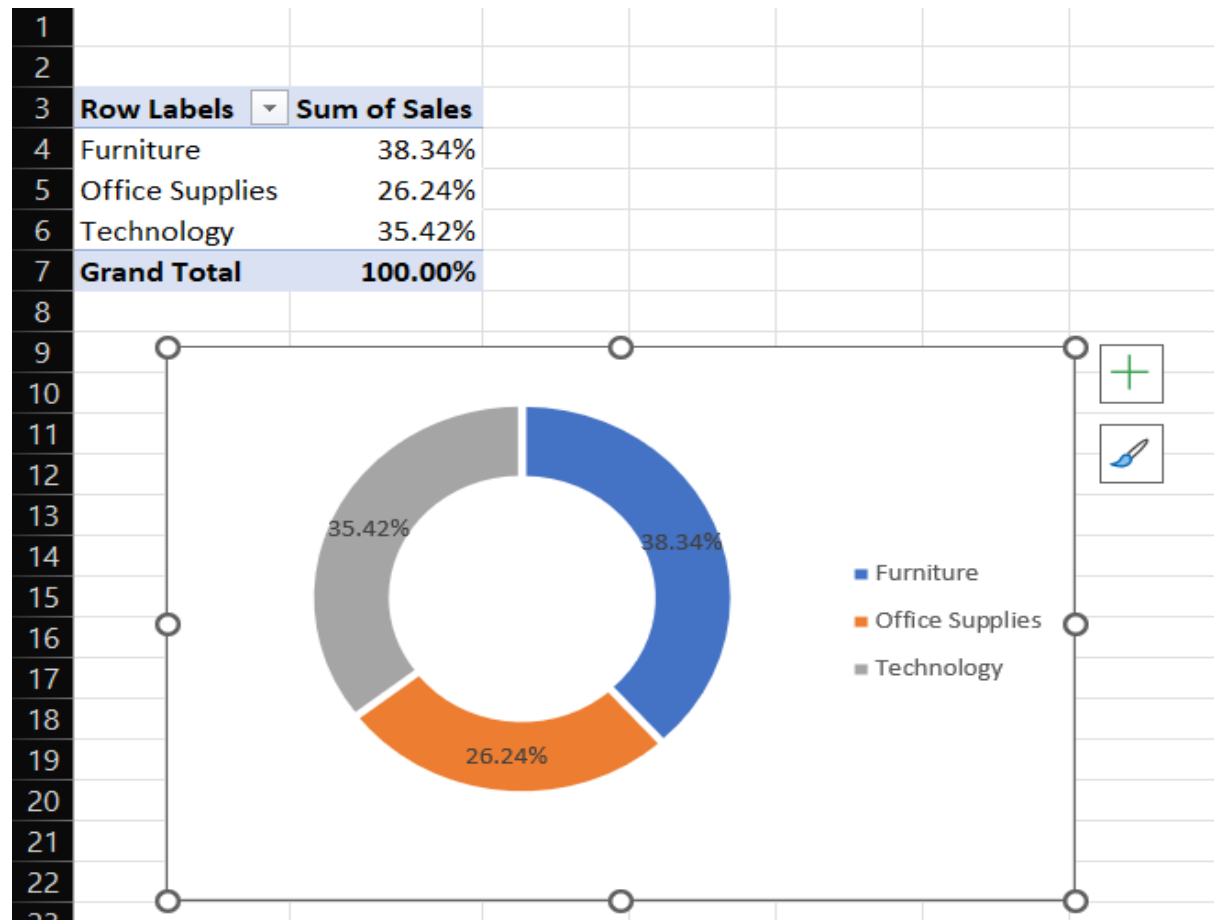
Waerfall chart



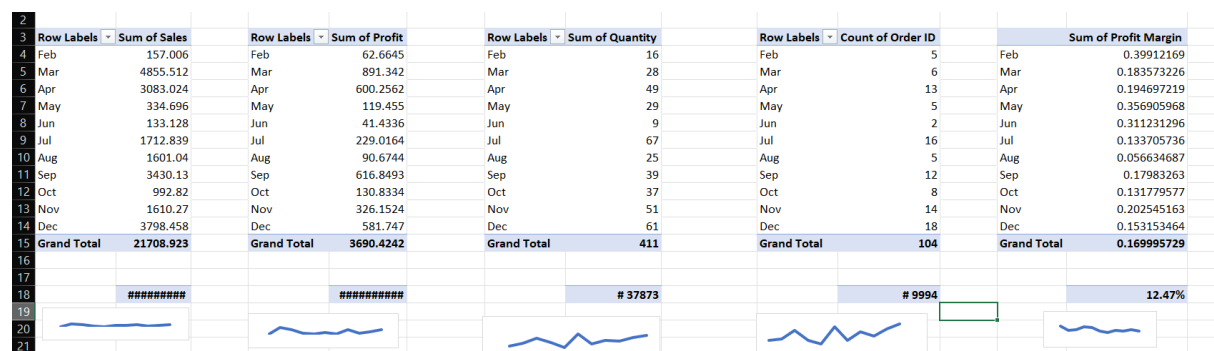
KPI YOY

1						
2						
3	Row Labels	Sum of Sales	Sum of Profit	Sum of Quantity	Count of Quarters (Order Date)	Sum of Profit Margin
4	2011	21708.923	3690.4242	411	104	0.169995729
5	2012	20478.852	2774.0686	338	87	0.135460162
6	2013	37943.414	3696.9703	551	147	0.097433781
7	2014	56590.588	6368.9519	859	233	0.112544367
8						
9						
10						
11		▲ 49.14%	▲ 72.27%	▲ 55.90%	▲ 58.50%	▲ 15.51%
12						

Pie chart CATEGORY WISE SALES SHARE



KPI



Details for Sum of Sales - Sub-Category: Storage																
Row ID	Order ID	Year	Order Date	Ship Date	Ship Mode	Customer ID	Customer Name	Segment	Country	City	State	Postal Code	Region	Product ID	Category	Sub-Category
9945	CA-2012-145415	2012	4/12/2012	4/17/2012	Second Class	RD-19660	Robert Dillbeck	Home Office	United States	Seattle	Washington	98103	West	OFF-ST-10000419	Office Supplies	Storage
9943	CA-2011-143371	2011	12/28/2011	1/3/2012	Standard Class	MD-17350	Maribeth Dona	Consumer	United States	Anaheim	California	92804	West	OFF-ST-10001128	Office Supplies	Storage
9936	CA-2013-114405	2013	4/8/2013	4/13/2013	Standard Class	AS-10240	Alan Shonely	Consumer	United States	Philadelphia	Pennsylvania	19120	East	OFF-ST-10001627	Office Supplies	Storage
9928	CA-2012-159534	2012	3/20/2012	3/23/2012	First Class	DH-13075	Dave Hallsten	Corporate	United States	New York City	New York	10035	East	OFF-ST-10001172	Office Supplies	Storage
5	US-2012-108966	2012	10/11/2012	10/18/2012	Standard Class	SO-20335	Sean O'Donnell	Consumer	United States	Fort Lauderdale	Florida	33311	South	OFF-ST-10000760	Office Supplies	Storage
9917	CA-2014-160927	2014	1/30/2014	2/1/2014	Second Class	TM-21010	Tamara Manning	Consumer	United States	Marion	Iowa	52302	Central	OFF-ST-10001590	Office Supplies	Storage
9901	CA-2014-117646	2014	8/22/2014	8/26/2014	Standard Class	SC-20845	Sung Chung	Consumer	United States	Louisville	Colorado	80027	West	OFF-ST-10000036	Office Supplies	Storage
9877	US-2014-166324	2014	4/21/2014	4/22/2014	First Class	BE-11455	Brad Eason	Home Office	United States	Cleveland	Ohio	44105	East	OFF-ST-10000078	Office Supplies	Storage
9872	CA-2014-146269	2014	10/7/2014	10/7/2014	Same Day	MH-17455	Mark Hamilton	Consumer	United States	Chicago	Illinois	60623	Central	OFF-ST-10003208	Office Supplies	Storage
9867	US-2012-116981	2012	3/26/2012	3/28/2012	Second Class	SM-20950	Suzanne McNair	Corporate	United States	New York City	New York	10009	East	OFF-ST-10002615	Office Supplies	Storage
9862	CA-2014-113278	2014	1/15/2014	1/21/2014	Standard Class	HR-14770	Hallie Redmond	Home Office	United States	Richmond	Indiana	47374	Central	OFF-ST-10002562	Office Supplies	Storage
9859	CA-2014-113278	2014	1/15/2014	1/21/2014	Standard Class	HR-14770	Hallie Redmond	Home Office	United States	Richmond	Indiana	47374	Central	OFF-ST-10001590	Office Supplies	Storage
9846	CA-2011-163867	2011	6/3/2011	6/6/2011	First Class	RE-19450	Richard Eichhorn	Consumer	United States	Decatur	Illinois	62521	Central	OFF-ST-10000877	Office Supplies	Storage
9828	CA-2014-169999	2014	6/20/2014	6/27/2014	Standard Class	JS-15685	Jim Sink	Corporate	United States	New York City	New York	10035	East	OFF-ST-10001511	Office Supplies	Storage
9817	CA-2012-162201	2012	6/8/2012	6/12/2012	Standard Class	AG-10495	Andrew Gjertsen	Corporate	United States	Saint Petersburg	Florida	33710	South	OFF-ST-10000046	Office Supplies	Storage
9784	CA-2012-149748	2012	5/31/2012	6/2/2012	Second Class	EM-13825	Elizabeth Moffitt	Corporate	United States	Paterson	New Jersey	7501	East	OFF-ST-10004340	Office Supplies	Storage
17	CA-2011-105893	2011	11/11/2011	11/18/2011	Standard Class	PK-19075	Pete Kriz	Consumer	United States	Madison	Wisconsin	53711	Central	OFF-ST-10004186	Office Supplies	Storage
18	CA-2011-167164	2011	5/13/2011	5/15/2011	Second Class	AG-10270	Alejandro Grove	Consumer	United States	West Jordan	Utah	84084	West	OFF-ST-10000107	Office Supplies	Storage
9756	CA-2014-113705	2014	3/28/2014	3/30/2014	Second Class	LC-16870	Lena Cacioppo	Consumer	United States	Richmond	Virginia	23223	South	OFF-ST-10001128	Office Supplies	Storage
9738	CA-2014-129294	2014	3/17/2014	3/22/2014	Standard Class	KD-16615	Ken Dana	Corporate	United States	Los Angeles	California	90032	West	OFF-ST-10002615	Office Supplies	Storage
9731	CA-2011-111962	2011	9/29/2011	10/4/2011	Standard Class	EB-14170	Evan Bailliet	Consumer	United States	Seattle	Washington	98115	West	OFF-ST-10000046	Office Supplies	Storage
9720	CA-2014-166835	2014	11/13/2014	11/15/2014	Second Class	DK-13375	Dennis Kane	Consumer	United States	Lancaster	Pennsylvania	17602	East	OFF-ST-10002574	Office Supplies	Storage
9713	CA-2011-114251	2011	11/5/2011	11/10/2011	Standard Class	MD-17350	Maribeth Dona	Consumer	United States	Philadelphia	Pennsylvania	19143	East	OFF-ST-10003716	Office Supplies	Storage
9710	CA-2013-161746	2013	10/22/2013	10/28/2013	Standard Class	CS-11950	Carlos Soltero	Consumer	United States	Los Angeles	California	90045	West	OFF-ST-10002743	Office Supplies	Storage
9693	CA-2012-107902	2012	8/28/2012	9/2/2012	Standard Class	SM-20950	Suzanne McNair	Corporate	United States	Fairfield	Connecticut	6824	East	OFF-ST-10001837	Office Supplies	Storage
9680	CA-2012-130113	2012	12/27/2012	12/31/2012	Standard Class	AH-10030	Aaron Hawkins	Corporate	United States	San Francisco	California	94122	West	OFF-ST-10000046	Office Supplies	Storage
9675	US-2011-164644	2011	7/27/2011	7/24/2011	Second Class	JL-15850	John Lucas	Consumer	United States	Houston	Texas	77095	Central	OFF-ST-10003123	Office Supplies	Storage
9664	CA-2014-132619	2014	9/1/2014	9/6/2014	Standard Class	MS-17770	Maxwell Schwartz	Consumer	United States	San Francisco	California	94109	West	OFF-ST-10001511	Office Supplies	Storage
9648	CA-2011-150518	2011	11/19/2011	11/24/2011	Standard Class	MW-18220	Mitch Webber	Consumer	United States	Coon Rapids	Minnesota	55433	Central	OFF-ST-10000877	Office Supplies	Storage
9646	US-2014-107970	2014	6/8/2014	6/14/2014	Standard Class	FO-14305	Frank Olsen	Consumer	United States	Glandale	Arizona	85301	West	OFF-ST-10002485	Office Supplies	Storage

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combo chart

Waterfall chart

Pie chart

map chart

Detail

Top 5

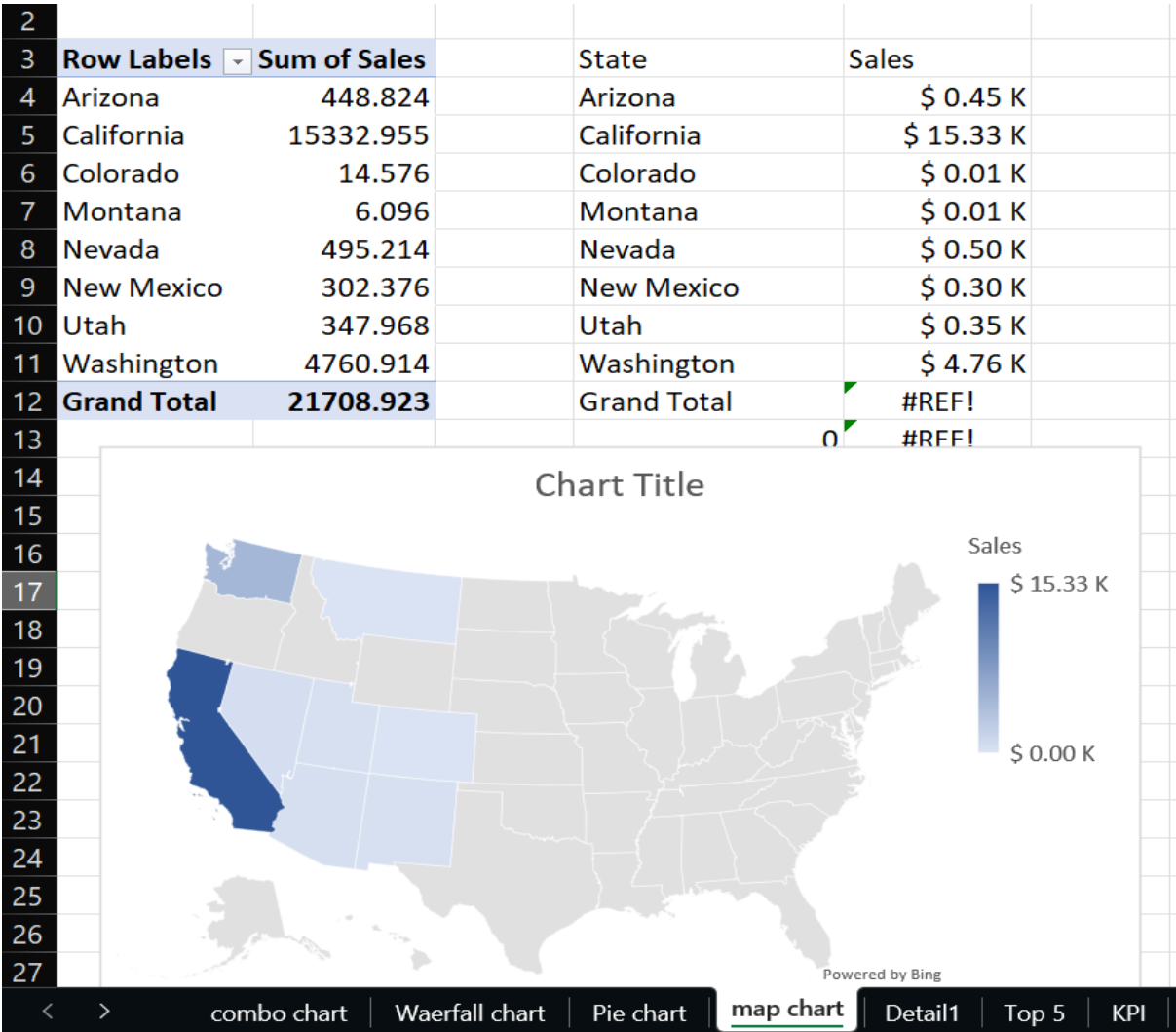
KPI

KPI YOY

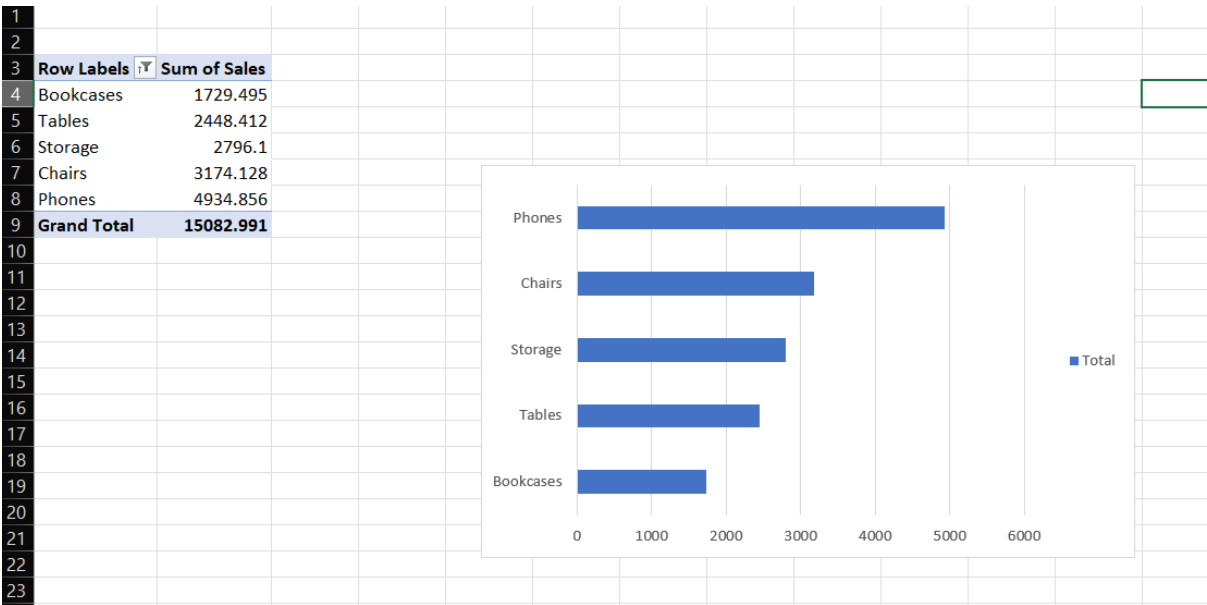
Dashboard

☰ +

Mapchart



Top 5 Sales



DASHBOARD:



CONCLUSION:

The data analysis indicates that January was the most profitable month. However, there is a noticeable decline in both sales and profit in the following months. This suggests that further

investigation is needed to understand the causes and implement strategies to stabilize or improve performance in other months.

FUTURE SCOPE:

Include more months or a full year's data for better trend analysis.

Analyze category-wise or region-wise sales and profits.

Use forecasting tools to predict future sales and profits.

Integrate seasonal and marketing campaign data for deeper insights.

REFERENCES:

Internal business records

Microsoft Excel for data analysis

LINKEDIN:

https://www.linkedin.com/posts/vikas-gupta-3b8759298_exceldashboard-dataanalytics-ecommerceanalysis-activity-7317986873392472065-h7Ro?utm_source=social_share_send&utm_medium=member_desktop_web&rcm=ACoAAEgDp_wBkM2sLQaAK0TykKaDkV9fqOOE6fA