

# INTRODUCTION TO DATA MANAGEMENT PROJECT REPORT

(Project Semester August-December 2022)

## *Superstore Sales Analysis*

Submitted by

**Sachin Patel**

Registration No - 12019632

Programme and Section – Computer Science and Engineering KM072

Course Code - INT217

Under the Guidance of

**Sameeksha Khare**

**(Assistant Professor)**

**Discipline of CSE/IT**

**Lovely School of Computer Science and Engineering**

**Lovely Professional University, Phagwara**



**L** OVELY  
**P** ROFESSIONAL  
**U** NIVERSITY

---

*Transforming Education Transforming India*

## **CERTIFICATE**

This is to certify that Sachin Patel bearing Registration no. 12019632 has completed INT217 project titled, “**Superstore 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 and Engineering**

Lovely Professional University

Phagwara, Punjab.

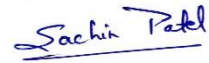
Date: 5 November 2022

### **DECLARATION**

I, Sachin Patel, student of Computer Science and Engineering 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: 5 November 2022

Registration No.12019632



Sachin Patel

## **ACKNOWLEDGEMENT**

Primarily I would like to thank God for being able to learn a new technology. Then I would like to express my special thanks of gratitude to the Professor of the course INT217 Introduction To data Management who provide me the golden opportunity to learn a new technology.

I would like to also thank my own college Lovely Professional University for offering such a course which will help me to keep up with the latest technologies.

Then I would like to thank my parents and friends who have helped me with their valuable suggestions and guidance for choosing this course.

Finally, I would like to thank my all classmates who have helped me a lot.

## **TABLE OF CONTENT**

1. Introduction.....	6
2. Objectives.....	7
3. Source of dataset.....	8
4. ETL process.....	10
5. Analysis on dataset.....	16
a. Introduction	
b. General Description	
c. Specific Requirements, functions and formulas and prediction models	
d. Analysis results	
e. Visualization	
6. List of Analysis with results.....	28
7. Bibliography.....	30

## **INTRODUCTION**

Super Store is a small retail business located in the United States. They sell Furniture, Office Supplies and Technology products and their customers are the mass Consumer, Corporate and Home Offices.

Our task is to analyze the sales data and identify weak areas and opportunities for Super Store to boost business growth. The data set contains sales, profit, and geographical information of Super Store.

The data set used contains data of 9995 unique individuals surveyed. The data includes several attribute information. It includes shipment mode, segment, country, city, state, region, category, subcategory, sales, quantity, profit, and discount.

I have scrubbed and organized the entire data set and performed the analysis of a clean data set. I have deduced and calculated important results from the data set with the help of various Excel features like pivot table, functions, charts, slicers and represented them in the form of a dynamic dashboard using various charts.

## **OBJECTIVE**

The Super Store dataset contains data on order details of customers for orders of a superstore in the US. This includes the state, region, order date, shipping date, product ordered etc.

Here are the main objectives that are discussed in the excel dashboard.

1. To analyze Best Selling and Most Profitable category.
2. To analyze the Most Profitable Customer Segment.
3. To analyze the Preferred Ship Mode category.
4. To analyze the Most Profitable Region.
5. To analyze the Highest Number of Sales city.

## **SOURCE OF DATASET**

The dataset is taken from Kaggle. Kaggle is a community of data scientists and data enthusiasts. This platform allows users to find and publish data sets. I have selected Superstore Sales Dataset which contains 11 clinical features to show the sales. Here are the details of my chosen dataset.

**Name** - Superstore

**Link** - <https://www.kaggle.com/datasets/roopacalistus/superstore>

**Author** - Roopa Calistus

**Region** - United States of America

**Format** – CSV

**Size** – 1.11 MB

**No. of Rows** - 9995

**No. of Columns** - 13

#### **Data Set Fields**

1. **Ship mode:** “First class”, “Second class”, “Standard class” or “Same day”
2. **Segment:** "Consumer", "Corporate" or "Home office"
3. **Country:** “United State of America (USA)”
4. **City:** All the city of USA.
5. **State:** All the State of USA.
6. **Region:** "North", “South”, “West” or "Central"
7. **Category:** "Furniture", "Office Supplies " or "Technology "
8. **Sub-Category:** “Bookcases”, “Chairs”, “Furnishings”, “Tables”, “Appliances”, “Art”  
“Binders”, “Envelopes”, “Fasteners”, “Labels”, “Paper”, “Storage”, “Supplies”,  
“Accessories”, “Copiers”, “Machines” or “Phones”



9. **Sales:** Sales of region.

10. **Profit:** Profit on product.

11. **Discount:** Discount on product.

12. **Quantity:** No. of item sold.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Ship Mode	Segment	Country	City	State	Region	Category	Sub-Category	Sales	Quantity	Discount	Profit	
2	Second Class	Consumer	United States	Henderson	Kentucky	South	Furniture	Bookcases	261.96	2	0	41.9136	
3	Second Class	Consumer	United States	Henderson	Kentucky	South	Furniture	Chairs	731.94	3	0	219.582	
4	Second Class	Corporate	United States	Los Angeles	California	West	Office Supplies	Labels	14.62	2	0	6.8714	
5	Standard Class	Consumer	United States	Fort Lauderdale	Florida	South	Furniture	Tables	957.5775	5	0.45	-383.031	
6	Standard Class	Consumer	United States	Fort Lauderdale	Florida	South	Office Supplies	Storage	22.368	2	0.2	2.5164	
7	Standard Class	Consumer	United States	Los Angeles	California	West	Furniture	Furnishings	48.86	7	0	14.1694	
8	Standard Class	Consumer	United States	Los Angeles	California	West	Office Supplies	Art	7.28	4	0	1.9656	
9	Standard Class	Consumer	United States	Los Angeles	California	West	Technology	Phones	907.152	6	0.2	90.7152	
10	Standard Class	Consumer	United States	Los Angeles	California	West	Office Supplies	Binders	18.504	3	0.2	5.7825	
11	Standard Class	Consumer	United States	Los Angeles	California	West	Office Supplies	Appliances	114.9	5	0	34.47	
12	Standard Class	Consumer	United States	Los Angeles	California	West	Furniture	Tables	1706.184	9	0.2	85.3092	
13	Standard Class	Consumer	United States	Los Angeles	California	West	Technology	Phones	911.424	4	0.2	68.3568	
14	Standard Class	Consumer	United States	Concord	North Carolina	South	Office Supplies	Paper	15.552	3	0.2	5.4432	
15	Standard Class	Consumer	United States	Seattle	Washington	West	Office Supplies	Binders	407.976	3	0.2	132.5922	
16	Standard Class	Home Office	United States	Fort Worth	Texas	Central	Office Supplies	Appliances	68.81	5	0.8	-123.858	
17	Standard Class	Home Office	United States	Fort Worth	Texas	Central	Office Supplies	Binders	2.544	3	0.8	-3.816	
18	Standard Class	Consumer	United States	Madison	Wisconsin	Central	Office Supplies	Storage	665.88	6	0	13.3176	
19	Second Class	Consumer	United States	West Jordan	Utah	West	Office Supplies	Storage	55.5	2	0	9.99	
20	Second Class	Consumer	United States	San Francisco	California	West	Office Supplies	Art	8.56	2	0	2.4824	
21	Second Class	Consumer	United States	San Francisco	California	West	Technology	Phones	213.48	3	0.2	16.011	
22	Second Class	Consumer	United States	San Francisco	California	West	Office Supplies	Binders	22.72	4	0.2	7.384	
23	Standard Class	Corporate	United States	Fremont	Nebraska	Central	Office Supplies	Art	19.46	7	0	5.0596	
24	Standard Class	Corporate	United States	Fremont	Nebraska	Central	Office Supplies	Appliances	60.34	7	0	15.6884	
25	Second Class	Consumer	United States	Philadelphia	Pennsylvania	East	Furniture	Chairs	71.372	2	0.3	-1.0196	
26	Standard Class	Consumer	United States	Orem	Utah	West	Furniture	Tables	1044.63	3	0	240.2649	
27	Second Class	Consumer	United States	Los Angeles	California	West	Office Supplies	Binders	11.648	2	0.2	4.2224	
28	Second Class	Consumer	United States	Los Angeles	California	West	Technology	Accessories	90.57	3	0	11.7741	
29	Standard Class	Consumer	United States	Philadelphia	Pennsylvania	East	Furniture	Bookcases	3083.43	7	0.5	-1665.0522	
30	Standard Class	Consumer	United States	Philadelphia	Pennsylvania	East	Office Supplies	Binders	9.618	2	0.7	-7.0532	
31	Standard Class	Consumer	United States	Philadelphia	Pennsylvania	East	Furniture	Furnishings	124.2	3	0.2	15.525	
32	Standard Class	Consumer	United States	Philadelphia	Pennsylvania	East	Office Supplies	Envelopes	3.264	2	0.2	1.1016	
33	Standard Class	Consumer	United States	Philadelphia	Pennsylvania	East	Office Supplies	Art	86.304	6	0.2	9.7092	

Superstore

Dashboard

Category wise profit

Category wise discount

Sales state wise

Region wise sales

seg ...

+

:

## ETL PROCESS

In computing, extract, transform, load (ETL) is a process to prepare data for analysis, especially in data warehousing. Data extraction involves extracting data from homogeneous or heterogeneous sources, while data transformation processes data by transforming them into a proper storage format/structure for the purpose of querying and analysis. Finally, data loading describes the insertion of data into the final target location such as an operational data store, a data mart, or a data warehouse. A properly designed ETL system extracts data from the source systems, enforces data quality and consistency standards, conforms data so that separate sources can be used together, and finally delivers data in a presentation-ready format so that application developers can build applications and end users can make decisions. I have also performed many steps in the ETL process to prepare my data for analysis.

## EXTRACTION



The raw data has been taken from Kaggle, before processing the data it looked like this

**SampleSuperstore.csv** (1.11 MB) 📄 🗑️ ➔

Detail Compact Column 10 of 13 columns ▼

**About this file**

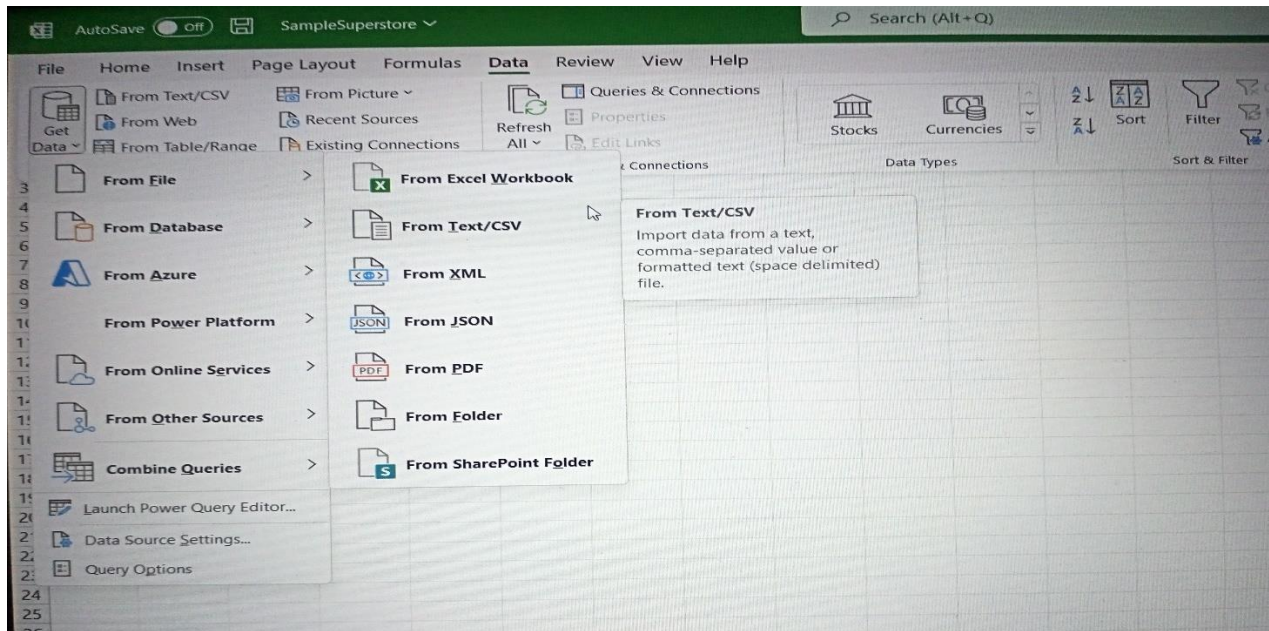
The sales details of different stores of a supermarket chain that has multiple stores in different parts of the US.

▲ Ship Mode	▲ Segment	📍 Country	▲ City	▲ State	# P
Shipping class	Customer type	USA	The city in USA where the store is located	Which State of the US	Pos
Standard Class 60%	Consumer 52%		New York City 9%	California 20%	
Second Class 19%	Corporate 30%		Los Angeles 7%	New York 11%	
Other (2081) 21%	Other (1783) 18%		Other (8332) 83%	Other (6865) 69%	
Second Class	Consumer	United States	Henderson	Kentucky	424
Second Class	Consumer	United States	Henderson	Kentucky	424
Second Class	Corporate	United States	Los Angeles	California	900
Standard Class	Consumer	United States	Fort Lauderdale	Florida	333

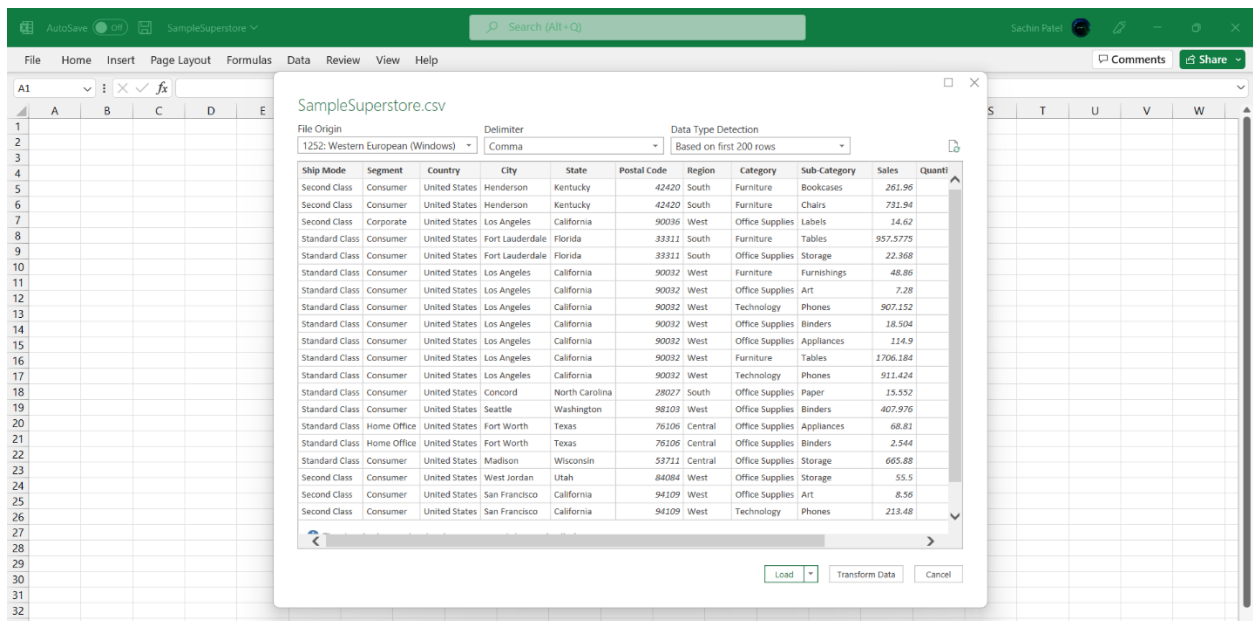
The data can be imported into excel directly from the web using get data features, but I have first downloaded the CSV file then imported it into excel using the get data features.

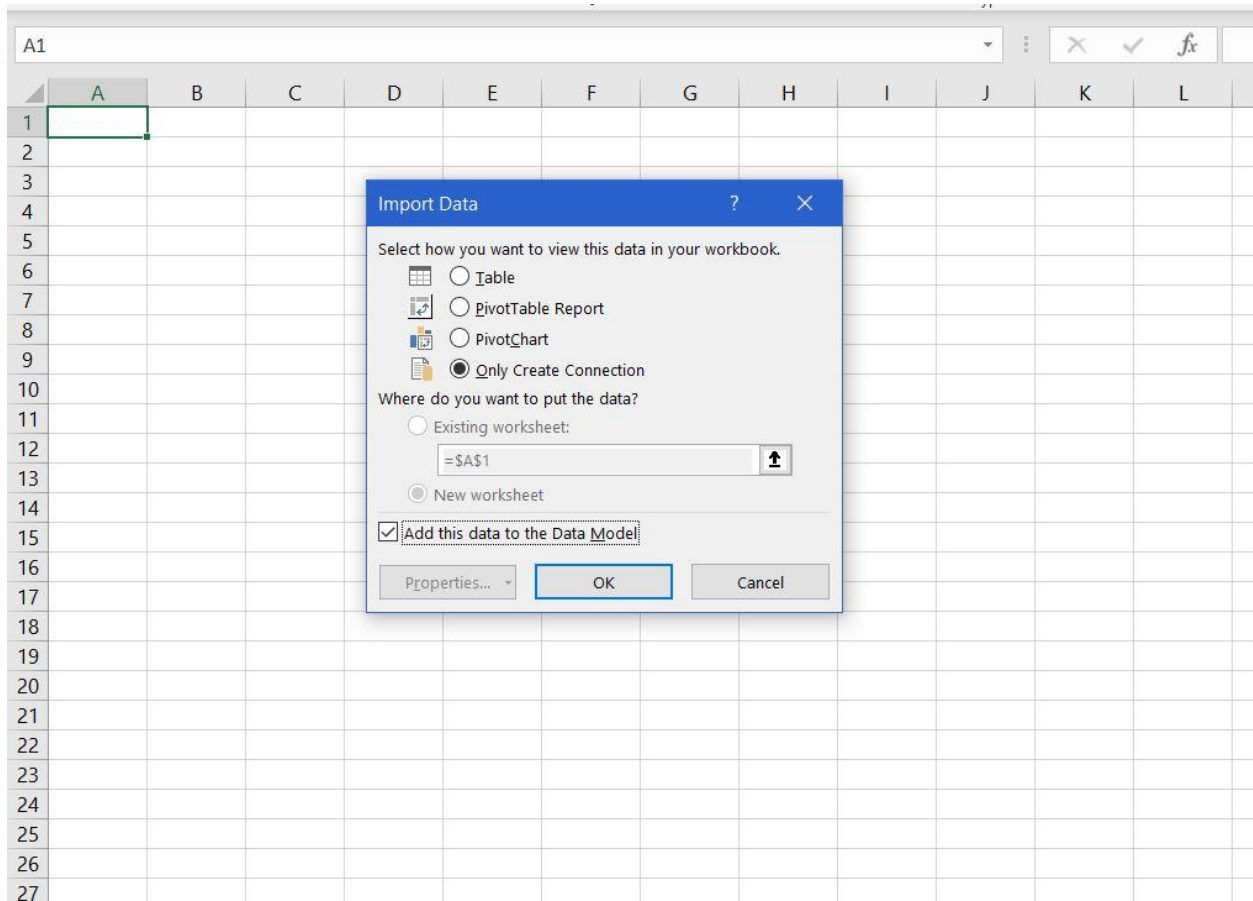
Step 1 – Open a new excel workbook

Step 2 – Use the GET Data feature



Step 3 – Load to Connection





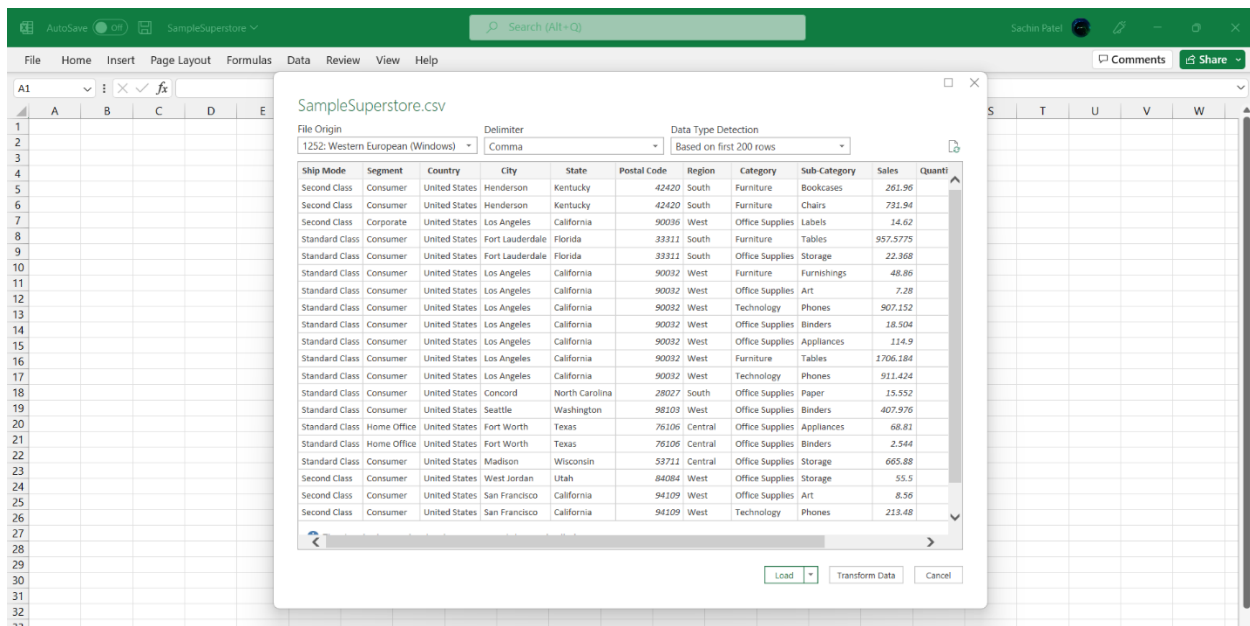
Step 4 – Repeat the process for all the data sets. In my case there was only 1 data set.

Now that we have extracted the data from the source and have imported it, now is the time to transform the data.

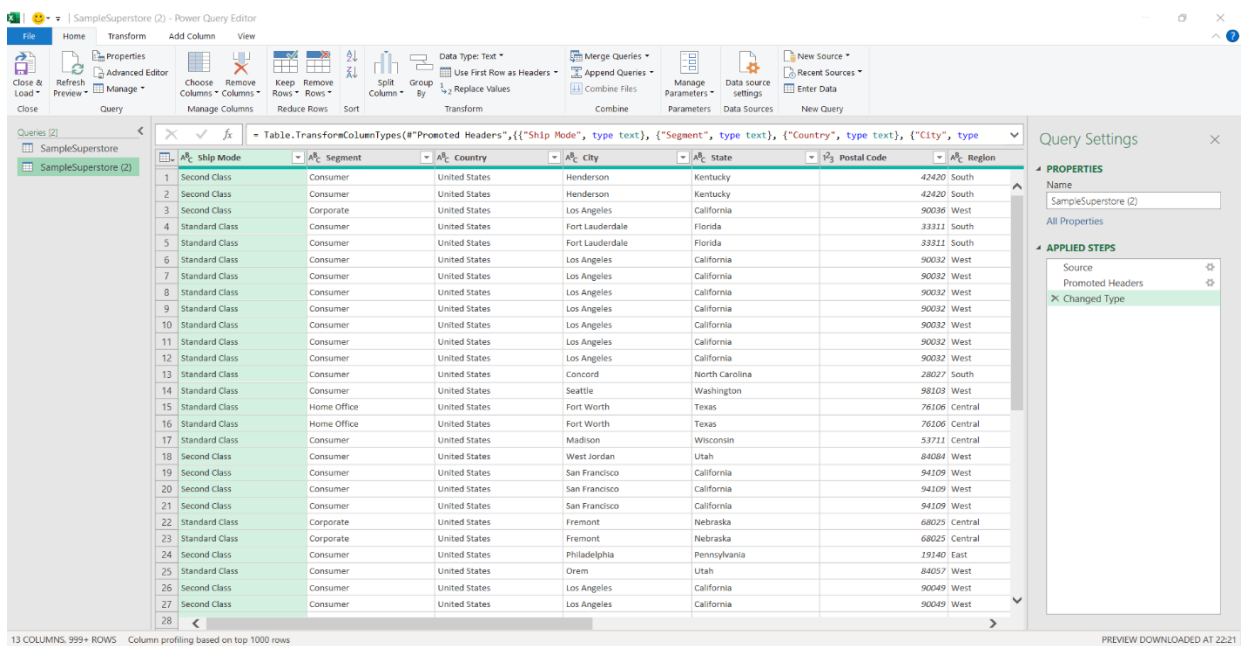
## TRANSFORM

If we want to transform the data before loading it can be done. Although transformation can be done even after loading the data, but it is better to first process the data before loading.

Step 1 - Use Get Data feature. But instead of loading to connection.



Step 2 – Remove the unwanted rows or columns or modify the data in Power Query Editor.



LOAD

When we have the desired data, we can load it into excel.

The image shows two screenshots of Microsoft Excel. The top screenshot displays the 'SampleSuperstore.csv' data load dialog box. The dialog shows the file origin as '1252: Western European (Windows)', the delimiter as 'Comma', and the data type detection as 'Based on first 200 rows'. A preview of the data is shown in a table format.

Ship Mode	Segment	Country	City	State	Postal Code	Region	Category	Sub-Category	Sales	Quantity
Second Class	Consumer	United States	Henderson	Kentucky	42420	South	Furniture	Bookcases	261.96	2
Second Class	Consumer	United States	Henderson	Kentucky	42420	South	Furniture	Chairs	731.94	3
Second Class	Corporate	United States	Los Angeles	California	90036	West	Office Supplies	Labels	14.62	2
Standard Class	Consumer	United States	Fort Lauderdale	Florida	33311	South	Furniture	Tables	957.5775	5
Standard Class	Consumer	United States	Fort Lauderdale	Florida	33311	South	Office Supplies	Storage	22.368	2
Standard Class	Consumer	United States	Los Angeles	California	90032	West	Furniture	Furnishings	48.86	7
Standard Class	Consumer	United States	Los Angeles	California	90032	West	Office Supplies	Art	7.28	4
Standard Class	Consumer	United States	Los Angeles	California	90032	West	Technology	Phones	907.152	6
Standard Class	Consumer	United States	Los Angeles	California	90032	West	Office Supplies	Binders	18.504	3
Standard Class	Consumer	United States	Los Angeles	California	90032	West	Office Supplies	Appliances	114.9	5
Standard Class	Consumer	United States	Los Angeles	California	90032	West	Furniture	Tables	1706.184	9
Standard Class	Consumer	United States	Los Angeles	California	90032	West	Technology	Phones	911.424	4
Standard Class	Consumer	United States	Concord	North Carolina	28027	South	Office Supplies	Paper	15.552	3
Standard Class	Consumer	United States	Seattle	Washington	98103	West	Office Supplies	Binders	407.976	3
Standard Class	Home Office	United States	Fort Worth	Texas	76106	Central	Office Supplies	Appliances	68.81	5
Standard Class	Home Office	United States	Fort Worth	Texas	76106	Central	Office Supplies	Binders	2.544	3
Standard Class	Consumer	United States	Madison	Wisconsin	53711	Central	Office Supplies	Storage	665.88	6
Second Class	Consumer	United States	West Jordan	Utah	84084	West	Office Supplies	Storage	55.5	2
Second Class	Consumer	United States	San Francisco	California	94109	West	Office Supplies	Art	8.56	2
Second Class	Consumer	United States	San Francisco	California	94109	West	Technology	Phones	213.48	3

The bottom screenshot shows the Excel spreadsheet with the data loaded. The data is organized into columns: Ship Mode, Segment, Country, City, State, Postal Code, Region, Category, Sub-Category, Sales, Quantity, Discount, and Profit. The data is displayed in a table format with alternating row colors.

This is the data we get after extracting, transforming the data set.

## TRANSFORM 2.0



Step1 – Deleting the unwanted columns if any.

Step2 – Renaming the columns

Step3 – Deleting the rows with unknown, N/A and unwanted values.

1. Apply filter
2. Select the column which contains values that need to be deleted. Then unselect the value to be deleted.
3. Repeat the process for all the columns in which we want to delete the unwanted value.

Step4 – Now we have deleted all unnecessary things from our data. It will be better to arrange data in cells properly and apply style.

## FINAL CLEAN DATA

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	Ship Mode	Segment	Country	City	State	Region	Category	Sub-Category	Sales	Quantity	Discount	Profit		
2	First Class	Corporate	United States	Decatur	Alabama	South	Office Supplies	Appliances	208.16	1	0	56.2032		
3	First Class	Corporate	United States	Decatur	Alabama	South	Office Supplies	Binders	16.74	3	0	8.0352		
4	Second Class	Consumer	United States	Montgomery	Alabama	South	Technology	Phones	979.95	5	0	274.386		
5	Second Class	Consumer	United States	Montgomery	Alabama	South	Office Supplies	Binders	22.75	5	0	11.375		
6	Standard Class	Consumer	United States	Florence	Alabama	South	Office Supplies	Paper	12.48	2	0	5.616		
7	Second Class	Consumer	United States	Florence	Alabama	South	Office Supplies	Binders	152.76	6	0	74.8524		
8	Second Class	Consumer	United States	Florence	Alabama	South	Office Supplies	Supplies	7.27	1	0	1.9629		
9	Second Class	Consumer	United States	Florence	Alabama	South	Furniture	Chairs	1819.86	14	0	163.7874		
10	First Class	Corporate	United States	Mobile	Alabama	South	Office Supplies	Paper	70.98	7	0	34.7802		
11	First Class	Corporate	United States	Mobile	Alabama	South	Office Supplies	Binders	91.68	3	0	45.84		
12	First Class	Corporate	United States	Mobile	Alabama	South	Office Supplies	Binders	33.75	5	0	16.875		
13	First Class	Corporate	United States	Mobile	Alabama	South	Technology	Machines	3040	8	0	1459.2		
14	Standard Class	Home Office	United States	Florence	Alabama	South	Office Supplies	Paper	4.98	1	0	2.4402		
15	Second Class	Corporate	United States	Montgomery	Alabama	South	Office Supplies	Storage	275.97	3	0	11.0388		
16	Second Class	Corporate	United States	Montgomery	Alabama	South	Technology	Phones	1394.95	5	0	362.687		
17	Second Class	Corporate	United States	Montgomery	Alabama	South	Furniture	Chairs	545.88	6	0	70.9644		
18	Standard Class	Consumer	United States	Auburn	Alabama	South	Furniture	Chairs	350.98	1	0	84.2352		
19	Standard Class	Consumer	United States	Auburn	Alabama	South	Office Supplies	Paper	13.08	2	0	6.0168		
20	Standard Class	Consumer	United States	Auburn	Alabama	South	Office Supplies	Storage	900.08	4	0	117.0104		
21	Same Day	Consumer	United States	Huntsville	Alabama	South	Technology	Accessories	29	2	0	7.25		
22	Standard Class	Consumer	United States	Montgomery	Alabama	South	Office Supplies	Art	14.67	3	0	3.9609		
23	First Class	Corporate	United States	Hoover	Alabama	South	Office Supplies	Supplies	477.24	4	0	9.5448		
24	First Class	Corporate	United States	Hoover	Alabama	South	Technology	Accessories	25.98	2	0	1.5588		
25	Second Class	Corporate	United States	Hoover	Alabama	South	Office Supplies	Art	15.47	7	0	4.1769		
26	Second Class	Corporate	United States	Hoover	Alabama	South	Office Supplies	Binders	7.16	2	0	3.4368		
27	Standard Class	Consumer	United States	Decatur	Alabama	South	Technology	Phones	135.98	2	0	33.995		
28	Standard Class	Consumer	United States	Decatur	Alabama	South	Technology	Phones	44.95	1	0	12.586		
29	Standard Class	Home Office	United States	Auburn	Alabama	South	Office Supplies	Art	3.76	2	0	1.0904		
30	First Class	Consumer	United States	Mobile	Alabama	South	Furniture	Furnishings	8.96	2	0	2.7776		
31	Standard Class	Consumer	United States	Mobile	Alabama	South	Technology	Accessories	209.97	3	0	71.3898		
32	Standard Class	Consumer	United States	Mobile	Alabama	South	Office Supplies	Binders	62.94	3	0	30.2112		
33	Standard Class	Consumer	United States	Mobile	Alabama	South	Office Supplies	Art	25.92	9	0	7.776		

## DATA ANALYSIS

### Objective 1 – Displaying category wise profit.

**Description** – The objective is to display the total profit in category and sub-category wise.

### Requirements -

- Pivot table
- Pie Chart
- Slicer

**Specification** – To sum profit category wise.

Category	Sub-Category	Sum of Profit
Furniture	Bookcases	-3472.556
	Chairs	26590.1663
	Furnishings	13059.1436
	Tables	-17725.4811
Furniture Total		18451.2728
Office Supplies	Appliances	18138.0054
	Art	6527.787
	Binders	30221.7633
	Envelopes	6964.1767
	Fasteners	949.5182
	Labels	5546.254
	Paper	34053.5693
	Storage	21278.8264
	Supplies	-1189.0995
Office Supplies Total		122490.8008
Technology	Accessories	41936.6357
	Copiers	55617.8249
	Machines	3384.7569
	Phones	44515.7306
Technology Total		145454.9481
Grand Total		286397.0217

**PivotTable Fields**

Choose fields to add to report:

Search

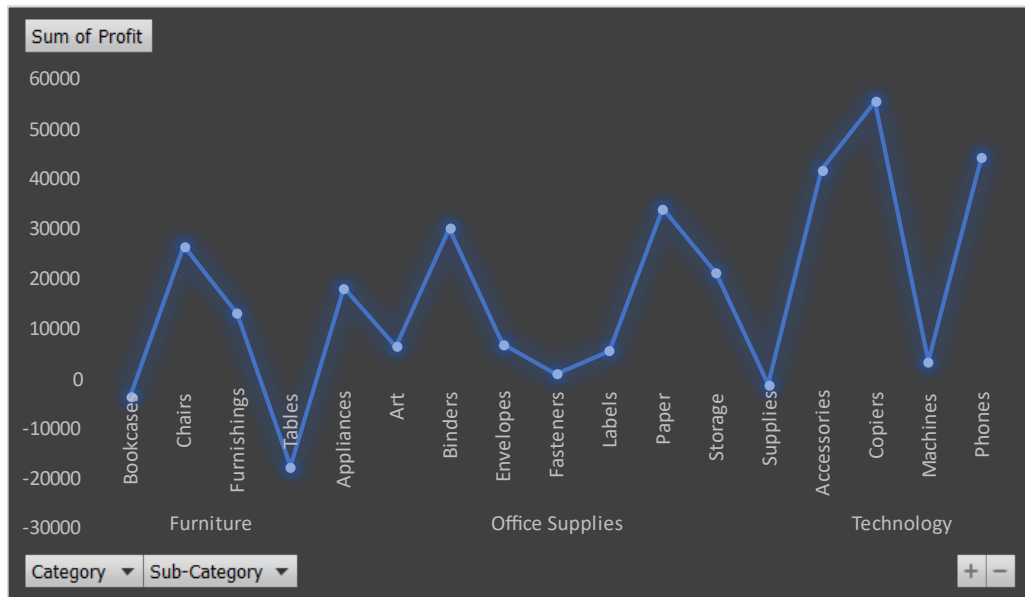
- ☐ Region
- ☒ **Category**
- ☒ **Sub-Category**
- ☐ Sales
- ☐ Quantity
- ☐ Discount
- ☒ **Profit**

Drag fields between areas below:

<b>Filters</b>	<b>Columns</b>
<b>Rows</b>	<b>Σ Values</b>
Category	Sum of Profit
Sub-Category	



## Result and Visualization



### Objective 2 – Displaying discount on certain category

**Description** – The objective is to display total discount on certain category and sub-category.

#### Requirements -

- Pivot table
- Line Chart
- Slicer

**Specification** – To sum discount category wise.

Category	Sub-Category	Sum of Discount
Furniture	Bookcases	48.14
	Chairs	105.00
	Furnishings	132.40
	Tables	83.35
Furniture Total		368.89
Office Supplies	Appliances	77.60
	Art	59.60
	Binders	567.00
	Envelopes	20.40
	Fasteners	17.80
	Labels	25.00
	Paper	102.60
	Storage	63.20
	Supplies	14.60
Office Supplies Total		947.80
Technology	Accessories	60.80
	Copiers	11.00
	Machines	35.20
	Phones	137.40
Technology Total		244.40
Grand Total		1561.09

PivotTable Fields

Choose fields to add to report:

☒ Category  
☒ Sub-Category  
☐ Sales  
☐ Quantity  
☒ Discount  
☐ Profit

More Tables

Drag fields between areas below:

Filters

Columns

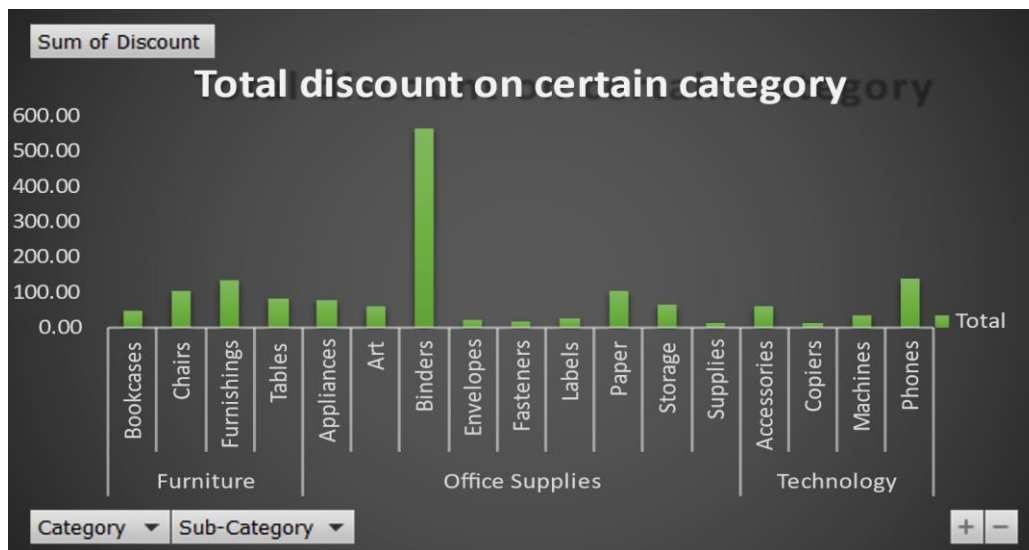
Rows

Σ Values

☐ Defer Layout Update

Update

## Result and Visualization



### Objective 3 – Displaying the sum of sales state wise in map.

**Description** – The objective is to display sales in each state in map

#### Requirements -

- Pivot table
- Pie Chart
- Slicer

**Specification** – To display each state in map.

Column Labels		
	Alabama	Arizona
Sum of Sales	19510.64	35282.00

PivotTable Fields

Choose fields to add to report:

Search

☒ State  
☐ Postal Code  
☐ Region  
☐ Category  
☐ Sub-Category  
☒ Sales

Drag fields between areas below:

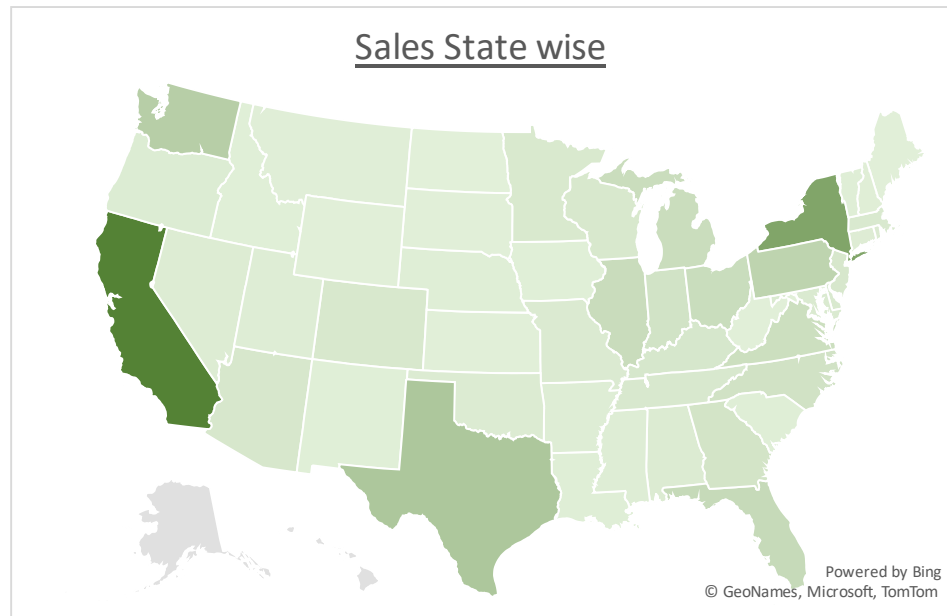
Filters

Columns  
State

Rows

Values  
Sum of Sales

## Result and Visualization



### Objective 4 – Displaying the region wise sales.

**Description** – The objective is to display total sales in each region.

#### Requirements -

- Pivot table
- Bar graph
- Slicer

**Specification** – To count total sales in each region.

Row Labels	Sum of Sales
Central	501239.89
East	678781.24
South	391721.91
West	725457.82
<b>Grand Total</b>	<b>2297200.86</b>

PivotTable Fields

Choose fields to add to report:

☐ State  
☐ Postal Code  
☒ **Region**  
☐ Category  
☐ Sub-Category  
☒ **Sales**  
☐ Quantity

Drag fields between areas below:

Filters

Columns

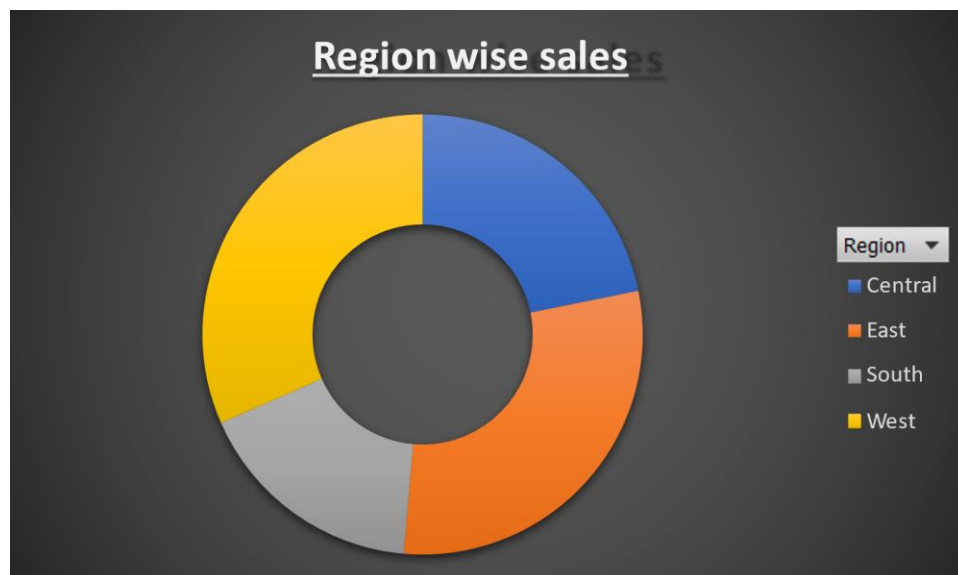
Rows

Values

Region

Sum of Sales

## Result and Visualization



## Objective 5 – Displaying the segment wise ship mode.

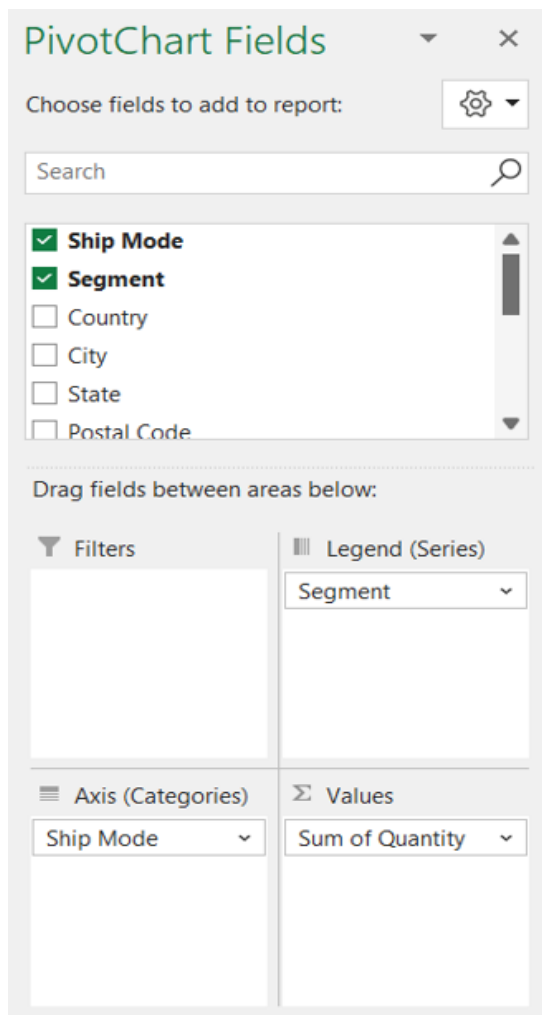
**Description** – The objective is to display total no of product shipped in which segment.

### Requirements -

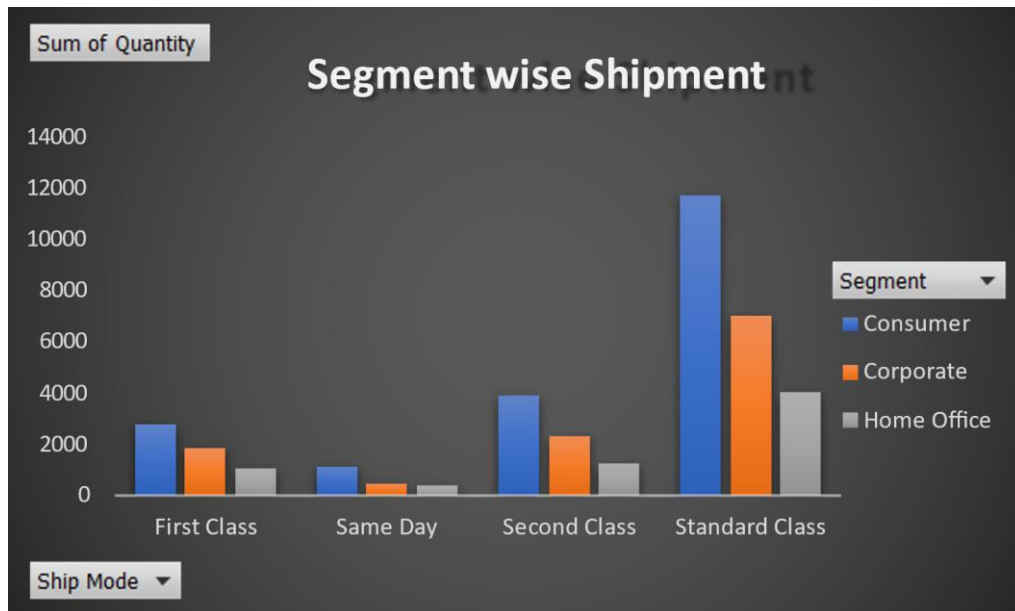
- Pivot table
- Line Chart
- Slicer

**Specification** – To count number article shipped in which segment.

Sum of Quantity			
Column Labels			
Row Labels	Consumer	Corporate	Home Office
First Class	2765	1861	1067
Same Day	1131	436	393
Second Class	3873	2317	1233
Standard Class	11752	6994	4051
Grand Total	19521	11608	6744



## Result and Visualization



**Objective 6 – Displaying the total number of quantities sold in each region and in each category.**

**Description** – The objective is to display the count of number quantity sold in each region and in each category.

**Requirements -**

- Pivot table
- Line Chart
- Slicer

**Specification** – To count number quantity sold in each region and in each category.

Sum of Quantity	Column Labels		
Row Labels	Furniture	Office Supplies	Technology
Central	1827	5409	1544
East	2214	6462	1942
South	1291	3800	1118
West	2696	7235	2335
Grand Total	8028	22906	6939

### PivotTable Fields

Choose fields to add to report:

☐ Postal Code

☒ **Region**

☒ **Category**

☐ Sub-Category

☐ Sales

☒ **Quantity**

☐ Discount

Drag fields between areas below:

Filters

Columns

Category

Rows

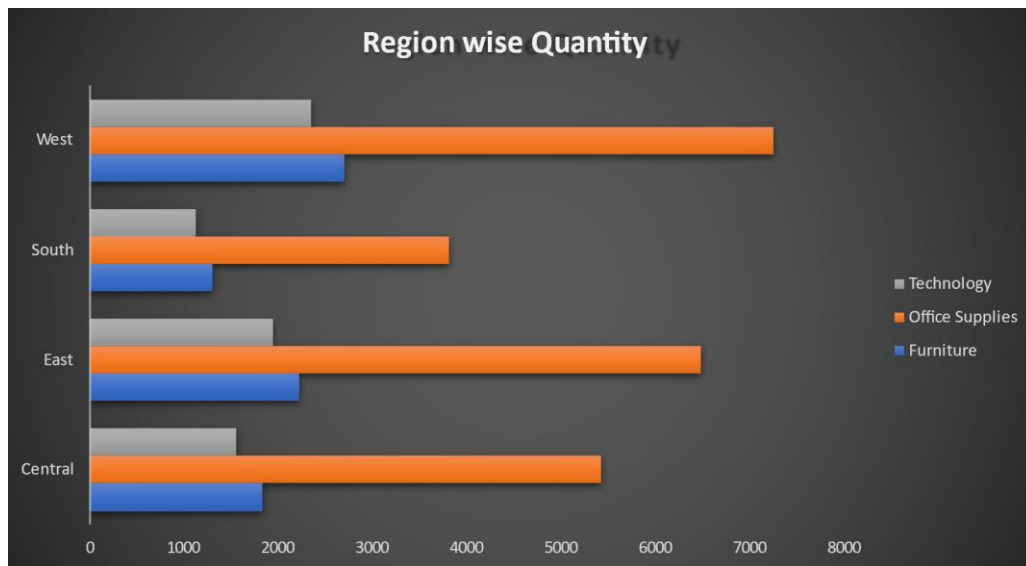
Region

Values

Sum of Quantity



## Result and Visualization



### Objective 7 – Displaying the total profit region wise in each category

**Description** – The objective is to display the total profit region wise in each category.

#### Requirements -

- Pivot table
- Line Chart
- Slicer

**Specification** – To count total profit in each region and in each category.

Sum of Profit	Column Labels ▼			
Row Labels ▼	Furniture	Office Supplies	Technology	Grand Total
Central	-2871.05	8879.98	33697.43	39706.36
East	3046.17	41014.58	47462.04	91522.78
South	6771.21	19986.39	19991.83	46749.43
West	11504.95	52609.85	44303.65	108418.45
<b>Grand Total</b>	<b>18451.27</b>	<b>122490.80</b>	<b>145454.95</b>	<b>286397.02</b>

PivotTable Fields

Choose fields to add to report:

Search

☒ Region  
☒ Category  
☐ Sub-Category  
☐ Sales  
☐ Quantity  
☐ Discount  
☒ Profit

Drag fields between areas below:

Filters

Columns

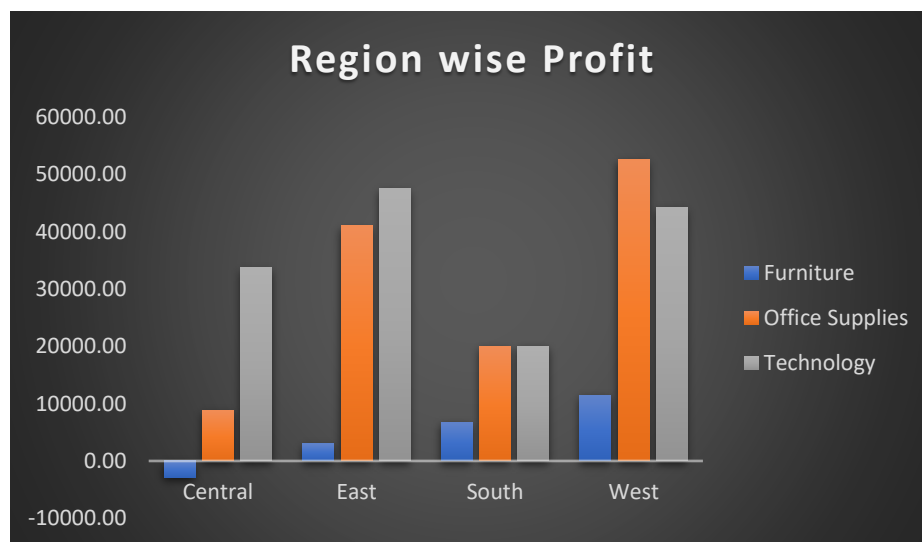
Rows

Values

Category

Sum of Profit

## Result and Visualization



## Dashboard



## **LIST OF ANALYSIS**

### **1. Category wise Profit**

**Result** – From the analysis it is evident that the maximum profit in furniture category is in chairs of 26590.16 and the minimum is in tables of -17725.48, in office supplies category maximum in paper of 34053.57 and minimum in supplies of -1189.10, in technology maximum in copiers of 55617.82 and minimum in machines 3384.76.

### **2. Category wise Discount**

**Result** – Data shows that the maximum discount in furniture category is in furnishings of 132.40 and the minimum is in bookcase of 48.14, in office supplies category maximum in binders of 567.00 and minimum in supplies of 14.60, in technology maximum in phones of 137.40 and minimum in copiers 11.

### **3. Sales State wise**

**Result** – Data shows that the total sales done in each state and each state showed on map where they lie.

### **4. Region wise sales**

**Result** – Data show the total amount of sales done in each region the maximum sales done in West region of 725457.82 and the minimum sales done in South region of 391721.91.

## **5. Segment wise ship mode**

**Result** – It is very clear from the analysis that in which segment the maximum shipment takes place and also the data shows on which mode of shipment the articles shipped.

## **6. Region wise Quantity**

**Result** – Analysis of the data shows that in which category and in which region the maximum item sold.

## **7. Region wise Profit**

**Result** – Analysis of the data shows that in which category and in which region the maximum profit earned .

## **BIBLIOGRAPHY**

1. Superstore – <https://www.kaggle.com/datasets/roopacalistus/superstore>
2. <https://exceljet.net/articles/pivot-table-tips>