

EXPLORATORY DATA ANALYSIS - RETAIL(#TASK 3)

Question: Perform Exploratory Data Analysis on dataset 'Samplesuperstore'

objective: As a business manager try to find out the weak areas were you can work to make more profit ?

1. what all business problems you can derive by exploring the data?



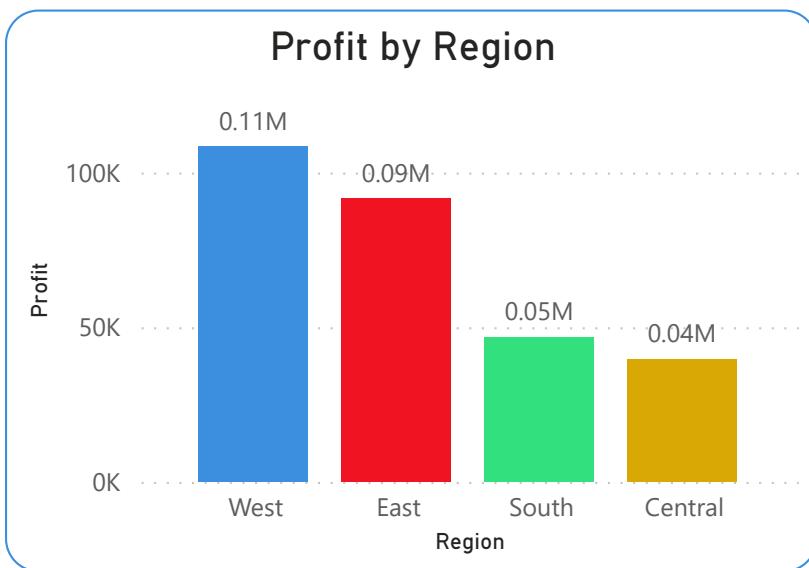
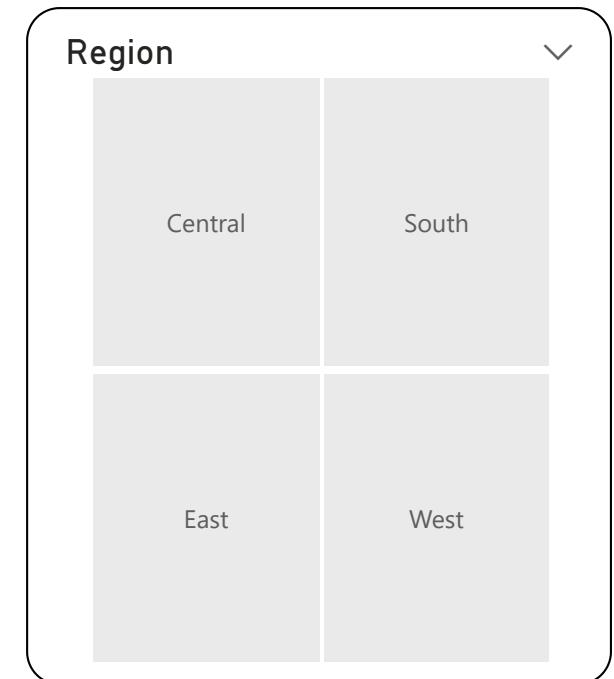
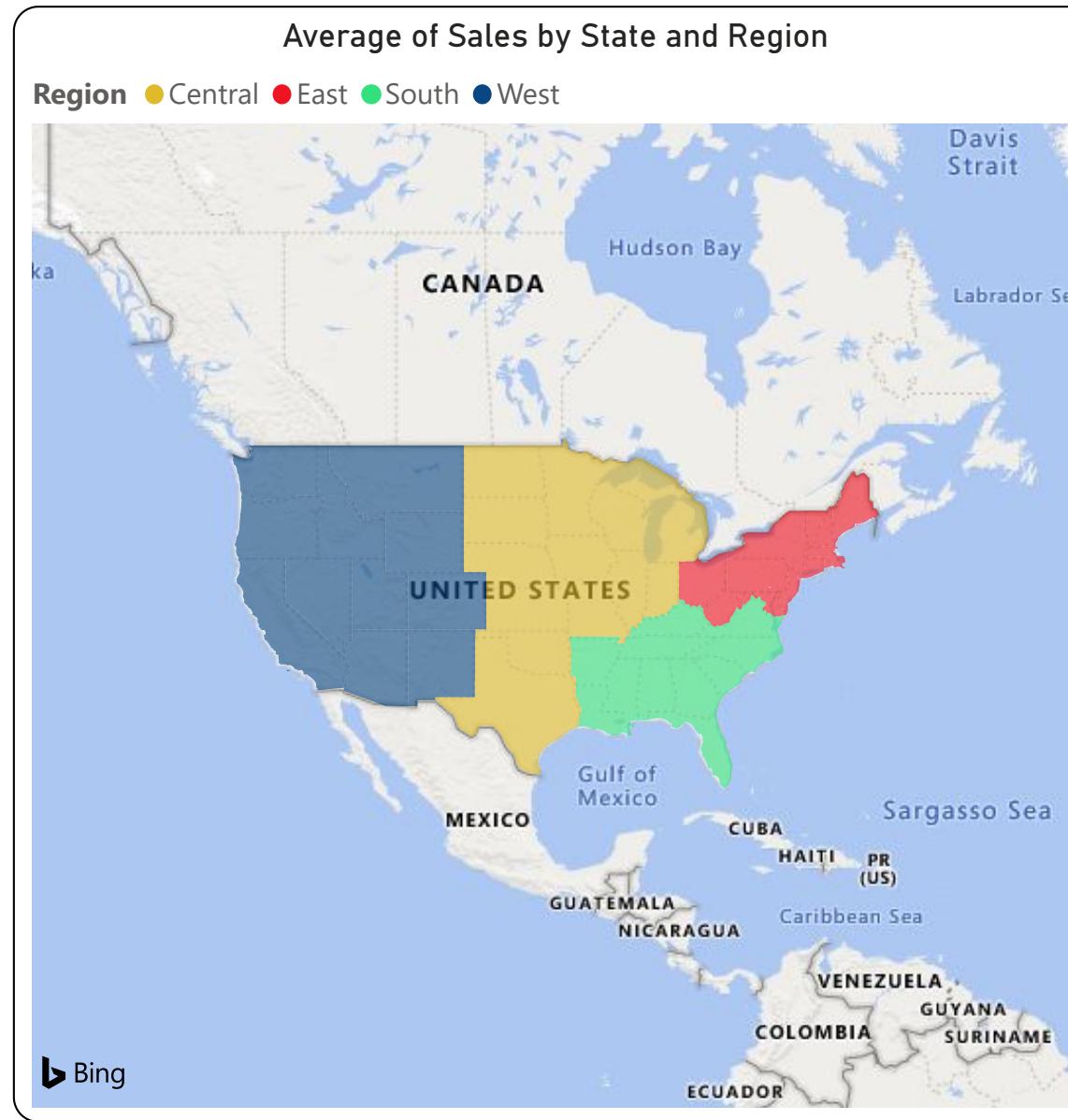
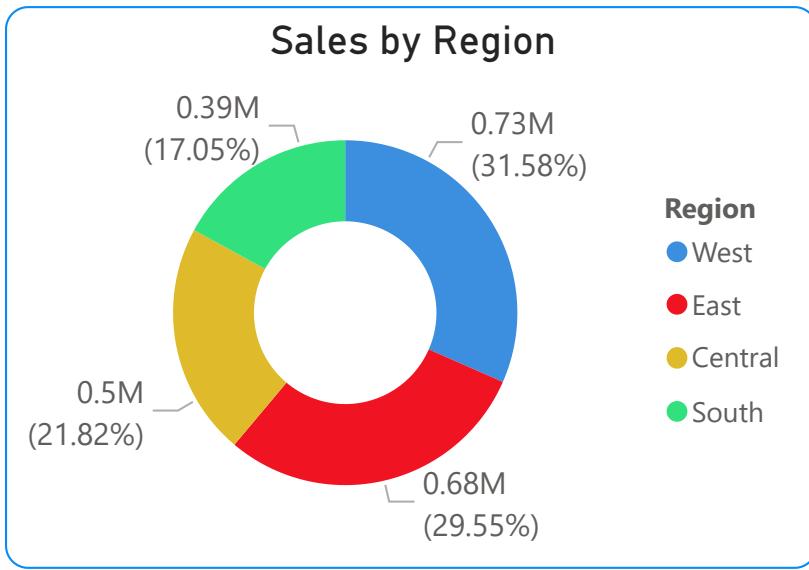
The Spark foundation

Graduate Rotational Internship Program | GRIP

#GRIPmay21

by: BLESSEL SUNNY

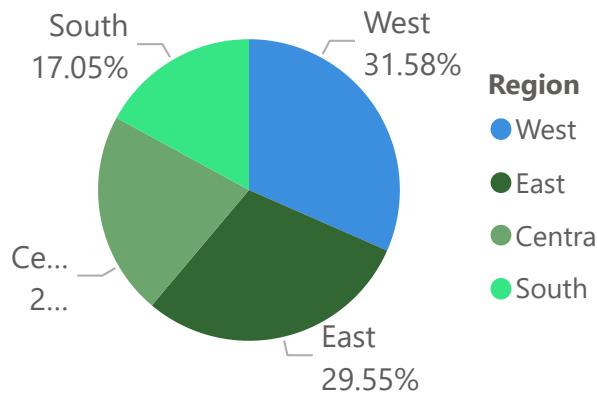
Profit and Sales distribution by Region country: United States of America



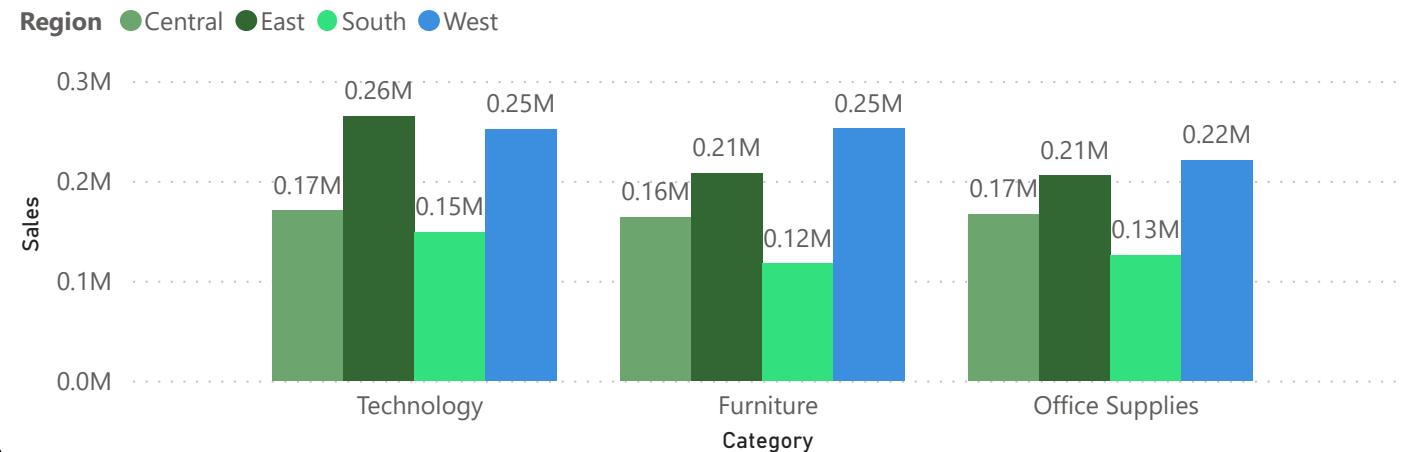
Region	Sales	Profit
Central	5,01,239.89	39,706.36
East	6,78,781.24	91,522.78
South	3,91,721.91	46,749.43
West	7,25,457.82	1,08,418.45
Total	22,97,200.86	2,86,397.02

Sales Distribution by Category and Region

Sales by Region



Sales by Category and Region

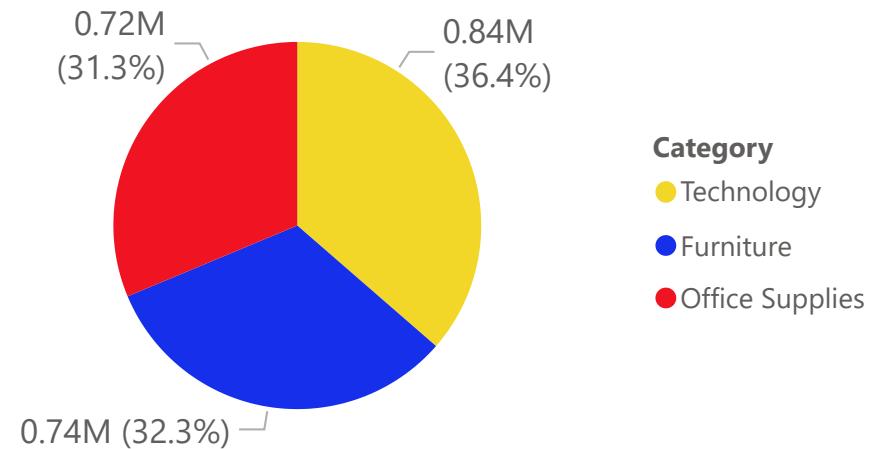


2.30M

Sales

Category	Region	Sales	Profit
Furniture	Central	1,63,797.16	-2,871.05
Furniture	East	2,08,291.20	3,046.17
Furniture	South	1,17,298.68	6,771.21
Furniture	West	2,52,612.74	11,504.95
Office Supplies	Central	1,67,026.42	8,879.98
Office Supplies	East	2,05,516.06	41,014.58
Office Supplies	South	1,25,651.31	19,986.39
Office Supplies	West	2,20,853.25	52,609.85
Technology	Central	1,70,416.21	22,697.42
Total		22,97,200.86	2,86,397.02

Sales by Category



Furniture
First Category

Profit Distribution by Region and Country

Select Region

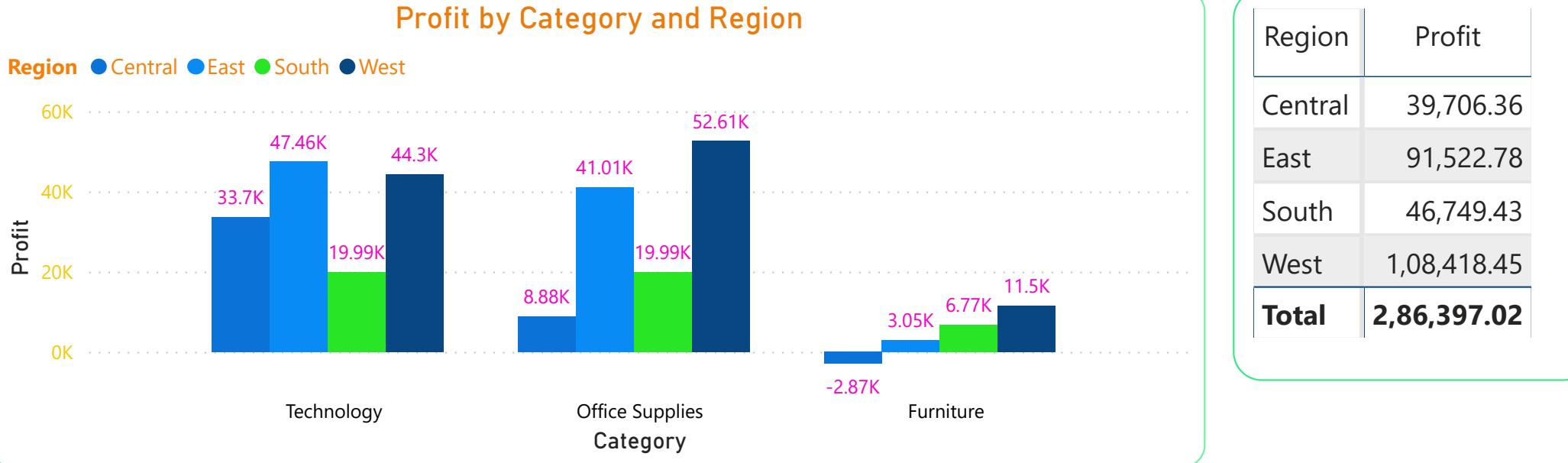
- Central
- East
- South
- West

Select Category

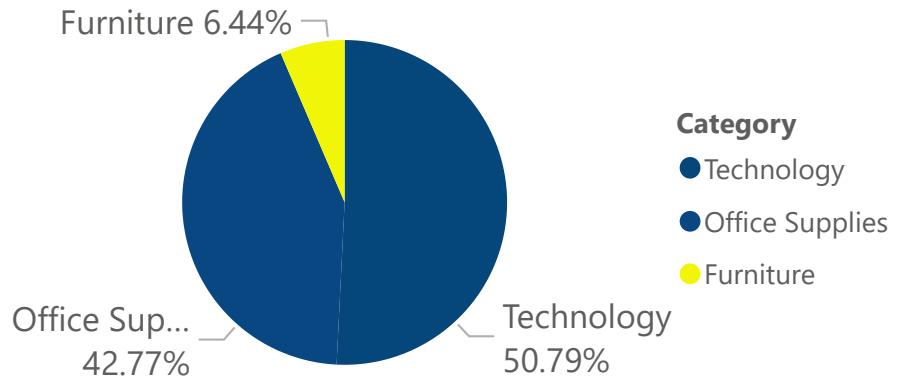
- Furniture
- Office Supplies
- Technology

286.40K

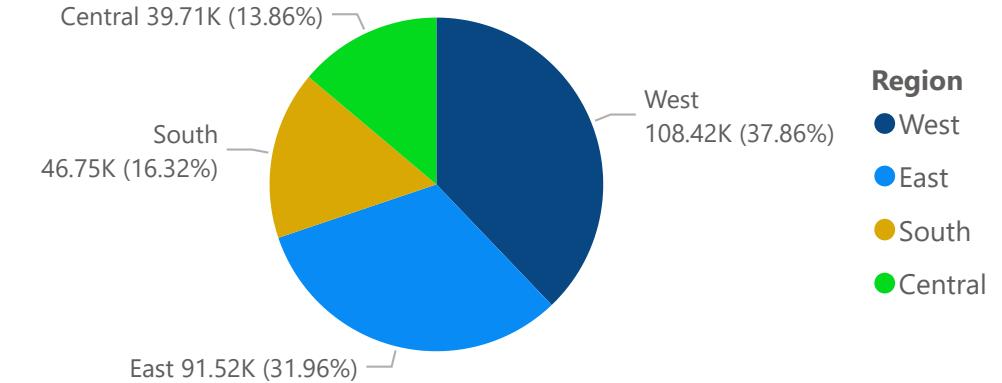
Profit



Profit by Category



Profit by Region



Sales and Profit Distribution by Sub-Category and Segment.

Sub-Category	Sales	Profit
Accessories	1,67,380.32	41,936.64
Appliances	1,07,532.16	18,138.01
Art	27,118.79	6,527.79
Binders	2,03,412.73	30,221.76
Bookcases	1,14,880.00	-3,472.56
Chairs	3,28,449.10	26,590.17
Copiers	1,49,528.03	55,617.82
Envelopes	16,476.40	6,964.18
Fasteners	3,024.28	949.52
Furnishings	91,705.16	13,059.14
Labels	12,486.31	5,546.25
Machines	1,89,238.63	3,384.76
Paper	78,479.21	34,053.57
Phones	3,30,007.05	44,515.73
Storage	2,23,843.61	21,278.83
Supplies	46,673.54	-1,189.10
Tables	2,06,965.53	-17,725.48
Total	22,97,200.86	2,86,397.02

Consumer

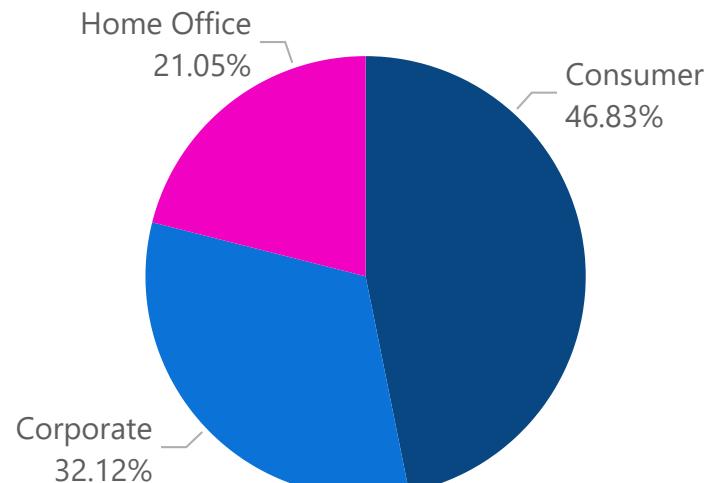
First Segment

2.30M

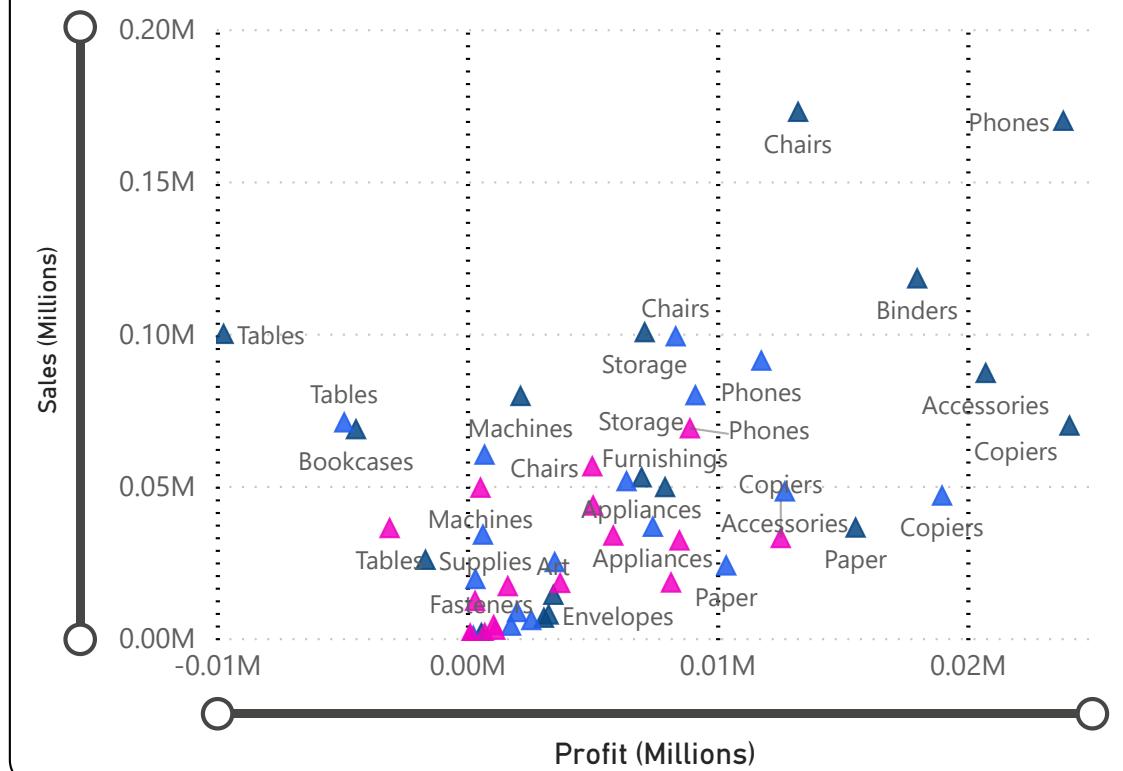
286.40K

Profit

Profit by Segment



Profit and Sales by Sub-Category and Segment



286.40K

Profit

2.30M

Sales

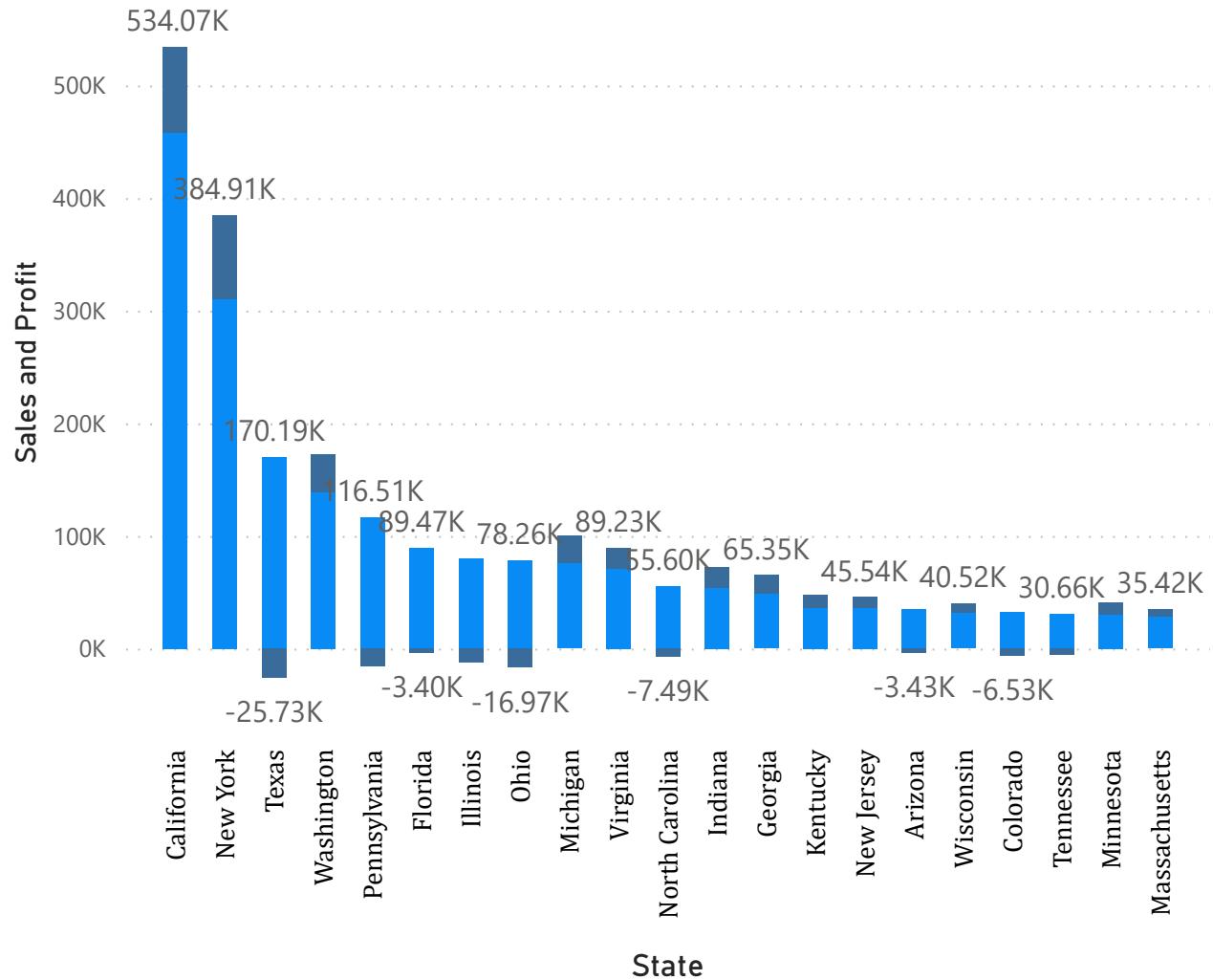
Alabama

First State

Sales Distribution by State

Sales and Profit by State

● Sales ● Profit

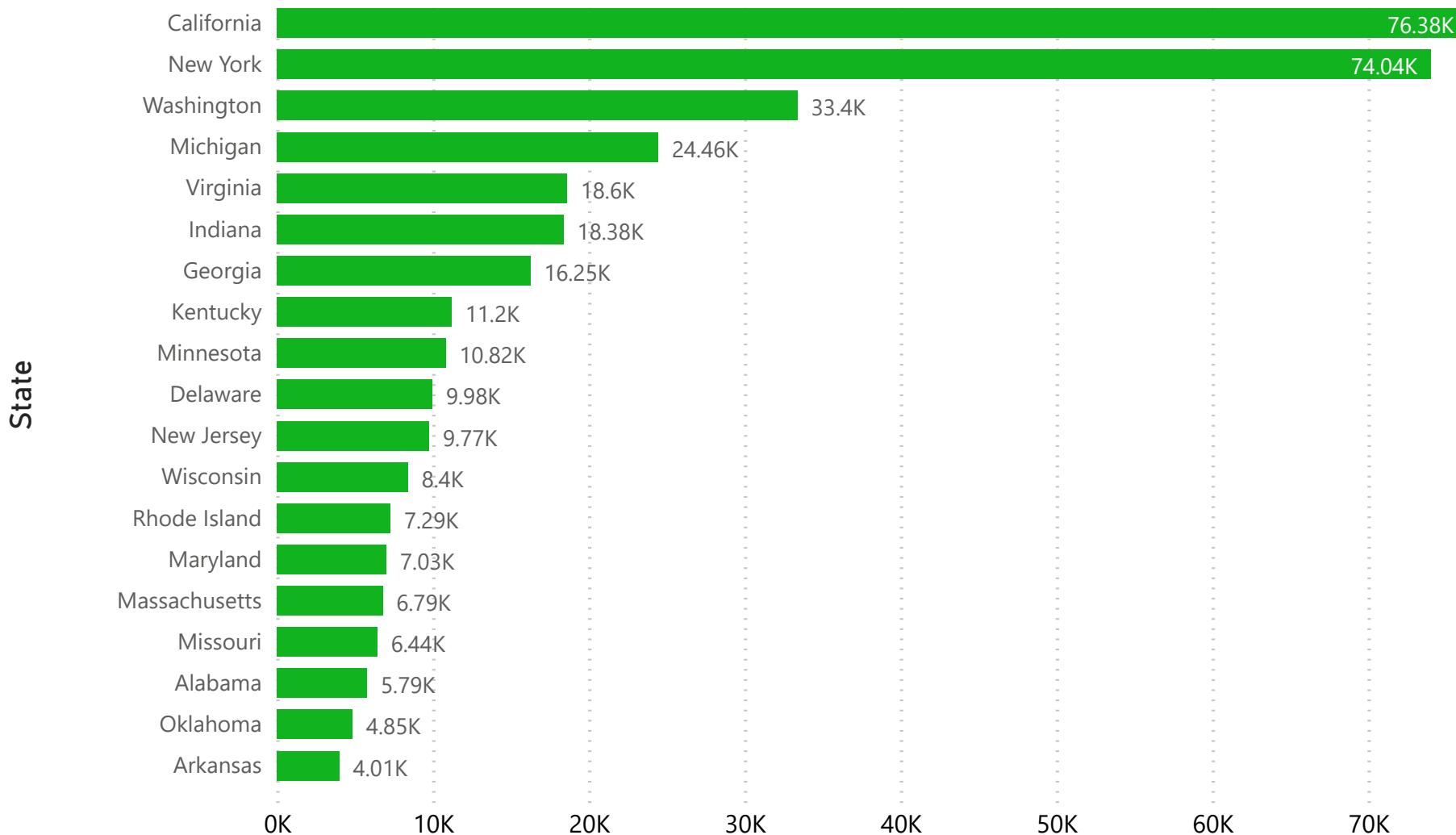


State	Sales	Profit
Alabama	19,510.64	5,786.83
Arizona	35,282.00	-3,427.92
Arkansas	11,678.13	4,008.69
California	4,57,687.63	76,381.39
Colorado	32,108.12	-6,527.86
Connecticut	13,384.36	3,511.49
Delaware	27,451.07	9,977.37
District of Columbia	2,865.02	1,059.59
Florida	89,473.71	-3,399.30
Georgia	49,095.84	16,250.04
Idaho	4,382.49	826.72
Illinois	80,166.10	-12,607.89
Indiana	53,555.36	18,382.94
Iowa	4,579.76	1,183.81
Kansas	2,914.31	836.44
Kentucky	36,591.75	11,199.70
Louisiana	9,217.03	2,196.10
Maine	1,270.53	454.49
Total	22,97,200.86	2,86,397.02



Profitable States

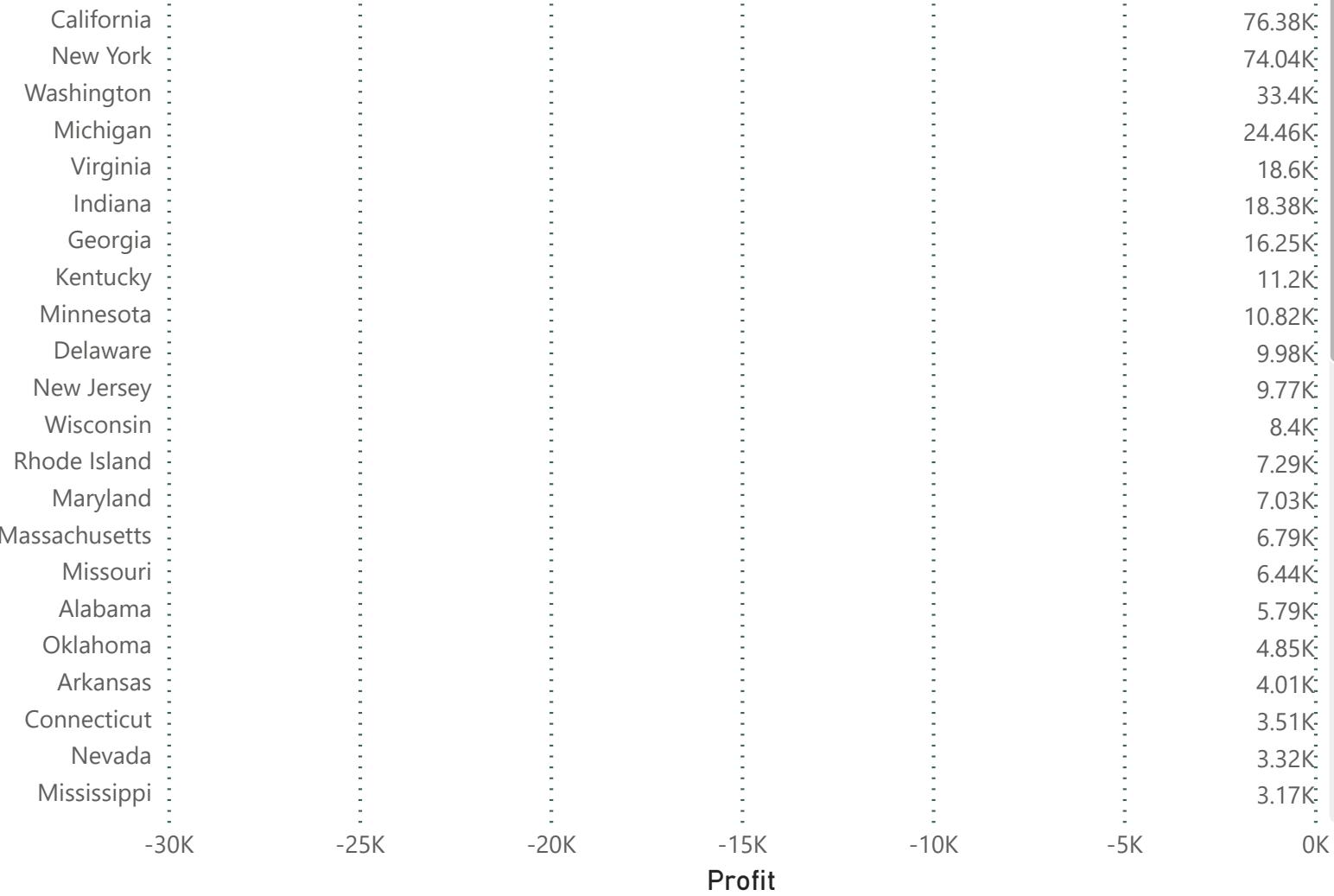
Profit by State



City	State	Profit
Aberdeen	South Dakota	6.63
Abilene	Texas	-3.76
Akron	Ohio	-186.64
Albuquerque	New Mexico	634.09
Alexandria	Virginia	318.62
Allen	Texas	-39.88
Allentown	Pennsylvania	-226.45
Altoona	Pennsylvania	-1.18
Amarillo	Texas	-387.97
Anaheim	California	1,234.00
Andover	Massachusetts	124.19
Ann Arbor	Michigan	228.92
Antioch	California	9.33
Apopka	Florida	54.36
Apple Valley	California	283.62
Apple Valley	Minnesota	8.97
Appleton	Wisconsin	554.77
Arlington	Texas	-254.39
Arlington	Virginia	4,424.09
Arlington Heights	Illinois	1.23
Arvada	Colorado	59.86
Asheville	North Carolina	77.51
Total		2,86,397.02

State with Loss

Profit by State



State	City	Profit
Alabama	Auburn	452.61
Alabama	Decatur	1,000.09
Alabama	Florence	248.66
Alabama	Hoover	18.72
Alabama	Huntsville	1,005.26
Alabama	Mobile	2,175.83
Alabama	Montgomery	834.66
Alabama	Tuscaloosa	51.01
Arizona	Avondale	76.17
Arizona	Bullhead City	6.72
Arizona	Chandler	81.46
Arizona	Gilbert	138.25
Arizona	Glendale	182.86
Arizona	Mesa	-559.23
Arizona	Peoria	-55.11
Arizona	Phoenix	-2,790.88
Total		2,86,397.02

2.30M

Sales

Aberdeen

First City

Alabama

First State

286.40K

Profit

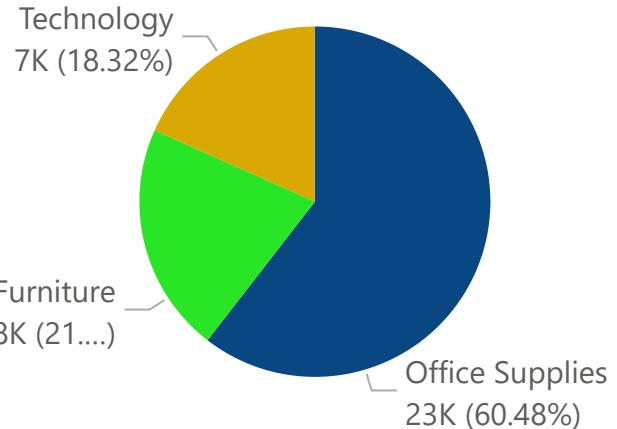
City wise Sales and Profit



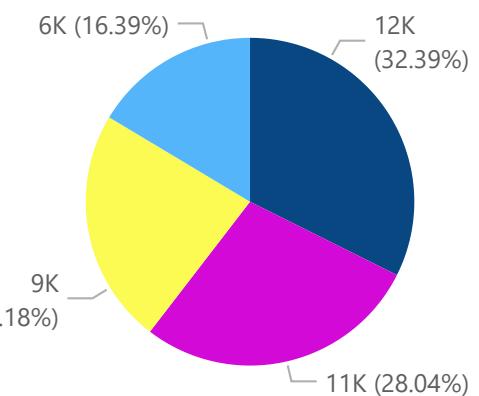
City	State	Sales
Yuma	Arizona	840
Yucaipa	California	50
York	Pennsylvania	817
Yonkers	New York	7,657
Woonsocket	Rhode Island	195
Woodstock	Georgia	286
Woodstock	Illinois	857
Woodland	California	264
Woodbury	Minnesota	607
Wilson	North Carolina	368
Wilmington	Delaware	6,553
Wilmington	North Carolina	743
Wichita	Kansas	825
Whittier	California	444
Wheeling	Illinois	737
Wheeling	West Virginia	1,209
Westminster	California	3,826
Westland	Michigan	2,057
Total		22,97,200

Discount and Quantity Distribution

Quantity by Category



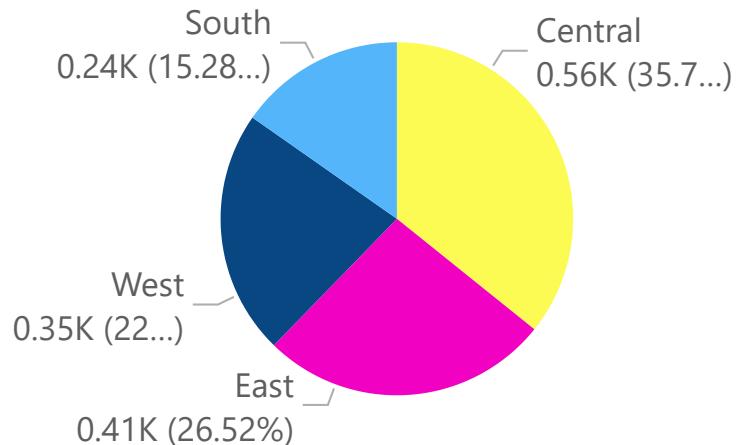
Quantity by Region



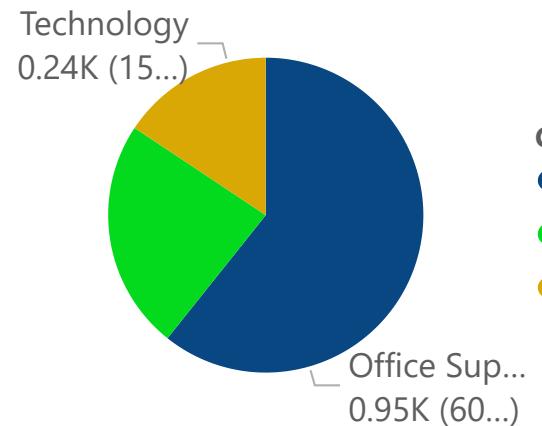
Discount and Quantity by Sub-Category



Discount by Region



Discount by Category



286.40K

Profit

2.30M

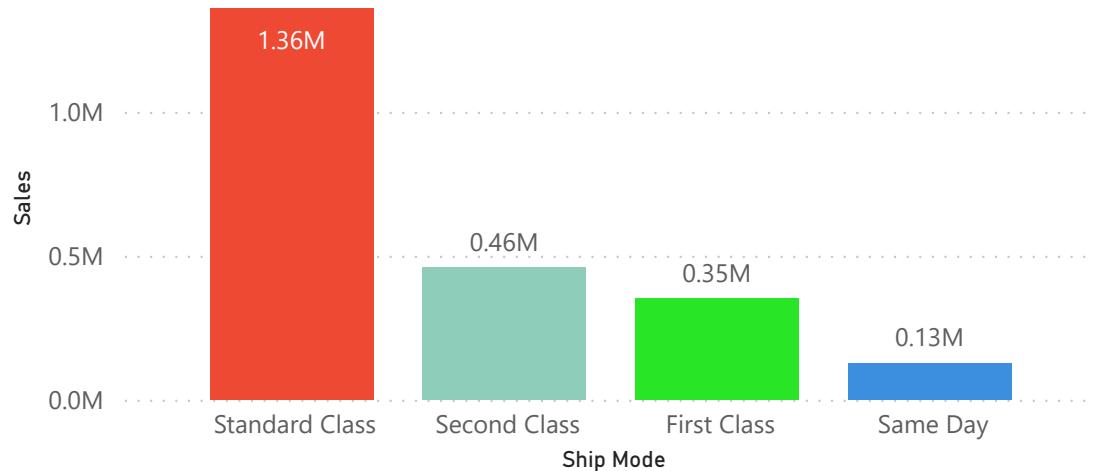
Sales

1.56K

Discount

Ship Mode Analysis

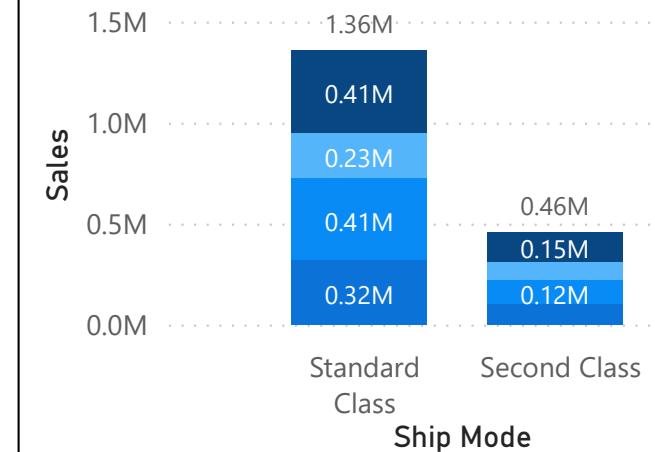
Sales by Ship Mode



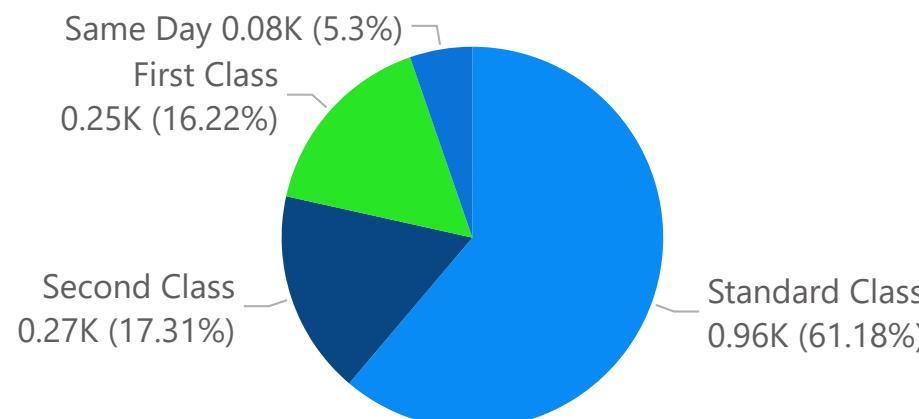
Ship Mode	Sales
First Class	3,51,428.42
Same Day	1,28,363.13
Second Class	4,59,193.57
Standard Class	13,58,215.74
Total	22,97,200.86

Sales by Ship Mode and Region

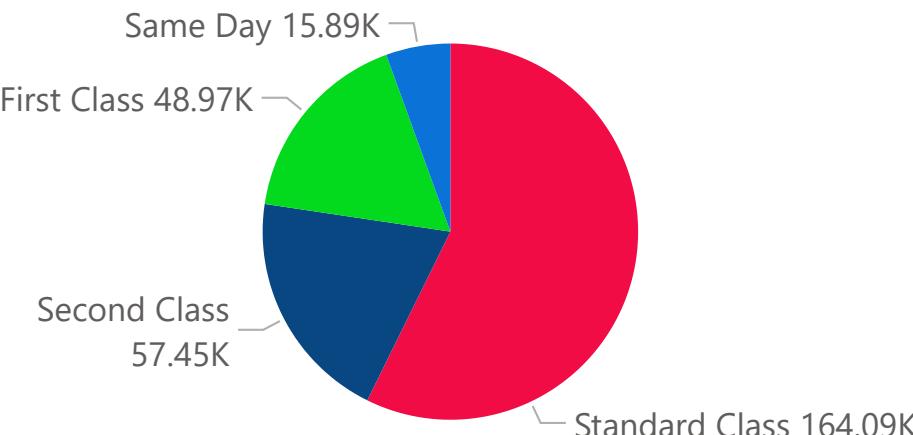
Region ● Central ● East ● South ● West



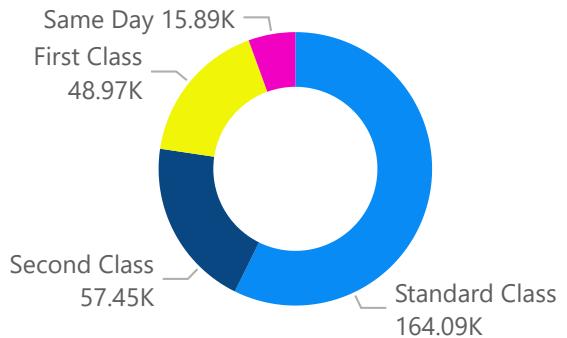
Discount by Ship Mode



Profit by Ship Mode



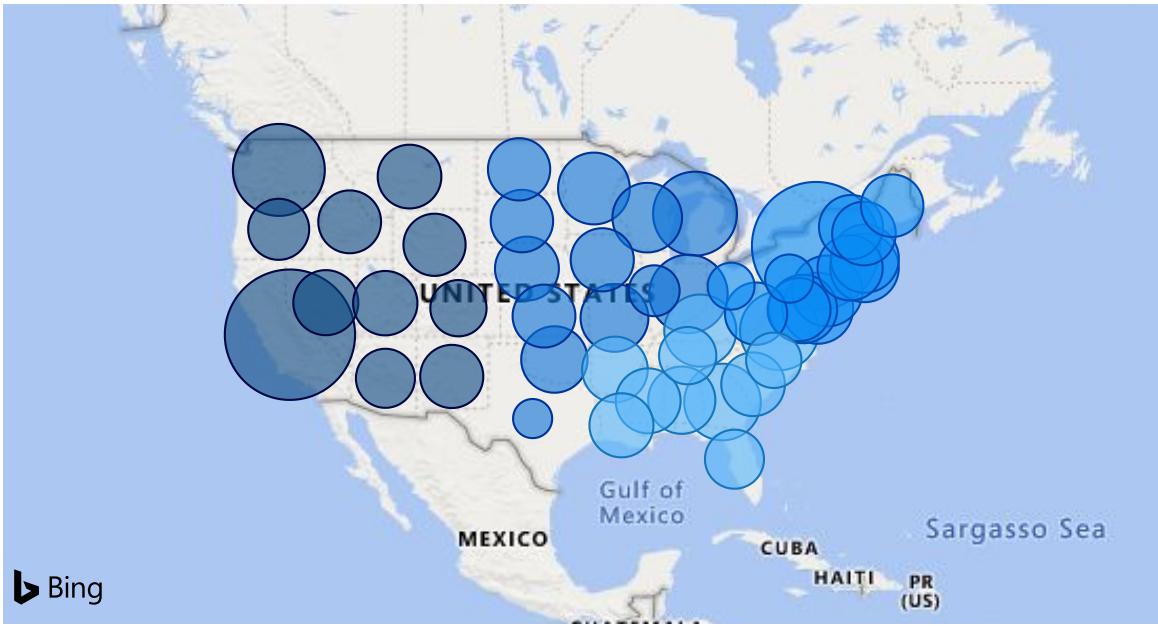
Profit by Ship Mode



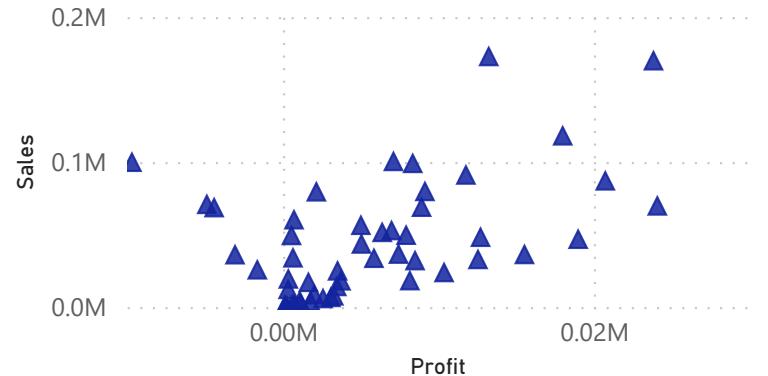
Dashboard - Retail - Conclusion

Profit and Sales by State and Region

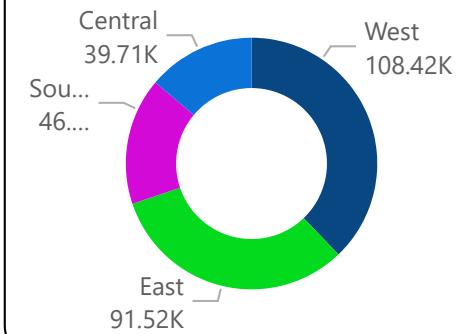
Region ● Central ● East ● South ● West



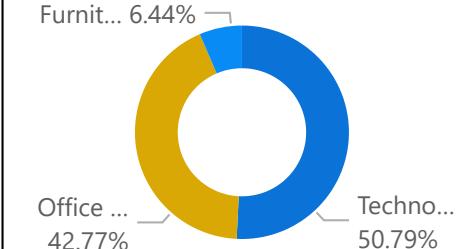
Profit and Sales by Sub-Category and Segment



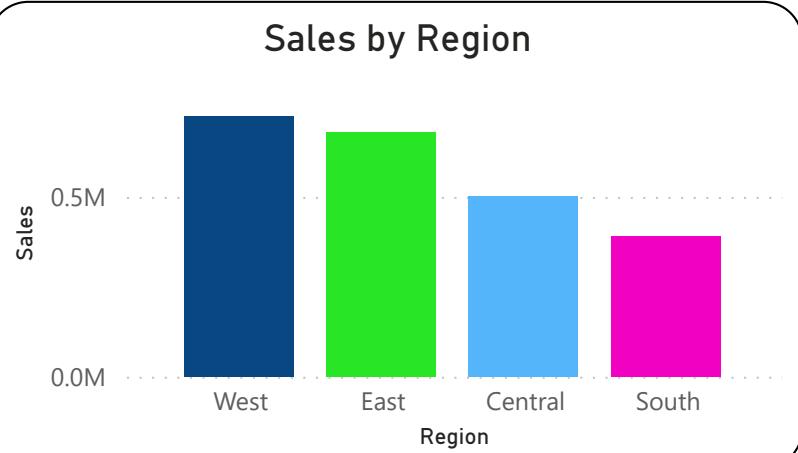
Profit by Region



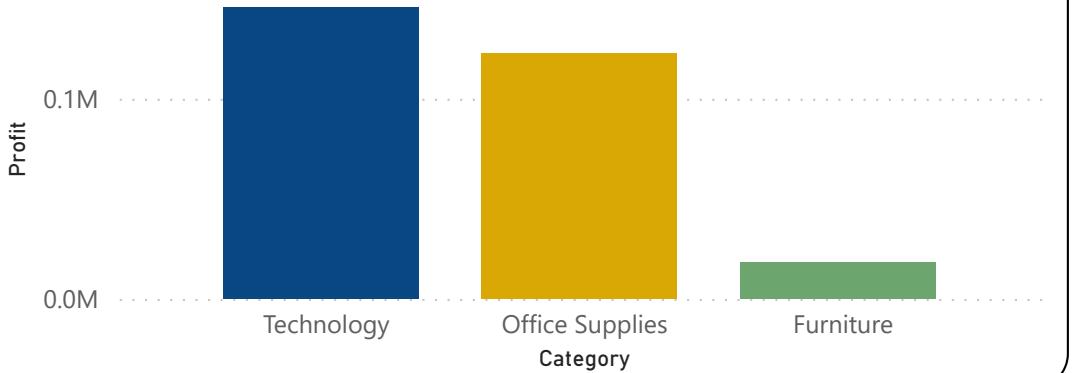
Profit by Category



Sales by Region



Profit by Category



Profit by Segment

