Data Analytics Internship

Day2 - Data Visualization and Storytelling

Row ID	Order ID	Order Date	Ship Date	Ship Mode	Customer ID	Customer Name	Segment	Country
1	CA-2016-152156	08-11-2016	11-11-2016	Second Class	CG-12520	Claire Gute	Consumer	United States
2	CA-2016-152156	08-11-2016	11-11-2016	Second Class	CG-12520	Claire Gute	Consumer	United States
3	CA-2016-138688	12-06-2016	16-06-2016	Second Class	DV-13045	Darrin Van Huff	Corporate	United States
4	US-2015-108966	11-10-2015	18-10-2015	Standard Class	SO-20335	Sean O'Donnell	Consumer	United States
5	US-2015-108966	11-10-2015	18-10-2015	Standard Class	SO-20335	Sean O'Donnell	Consumer	United States
6	CA-2014-115812	09-06-2014	14-06-2014	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States
7	CA-2014-115812	09-06-2014	14-06-2014	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States
8	CA-2014-115812	09-06-2014	14-06-2014	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States
9	CA-2014-115812	09-06-2014	14-06-2014	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States
10	CA-2014-115812	09-06-2014	14-06-2014	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States
11	CA-2014-115812	09-06-2014	14-06-2014	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States
12	CA-2014-115812	09-06-2014	14-06-2014	Standard Class	BH-11710	Brosina Hoffman	Consumer	United States
13	CA-2017-114412	15-04-2017	20-04-2017	Standard Class	AA-10480	Andrew Allen	Consumer	United States
14	CA-2016-161389	05-12-2016	10-12-2016	Standard Class	IM-15070	Irene Maddox	Consumer	United States
15	US-2015-118983	22-11-2015	26-11-2015	Standard Class	HP-14815	Harold Pawlan	Home Office	United States

Dataset - SuperStore.csv

Total Sales: *₹2.3M* – reflects healthy customer acquisition.

Total Profit: *₹286K* – a concern when compared to high sales.
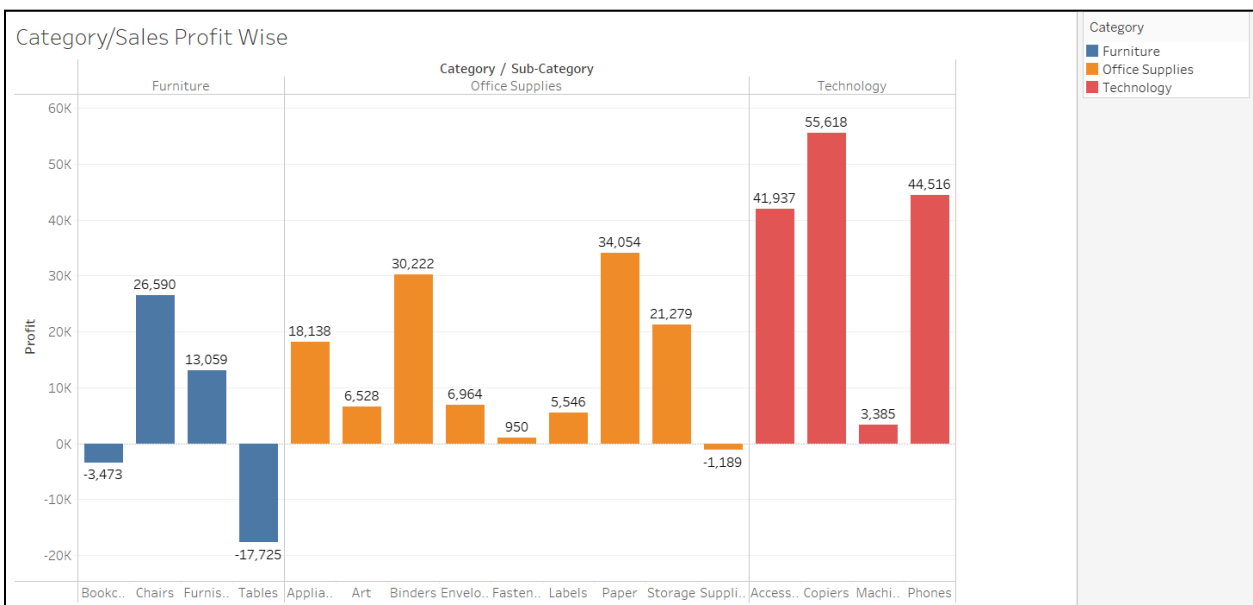
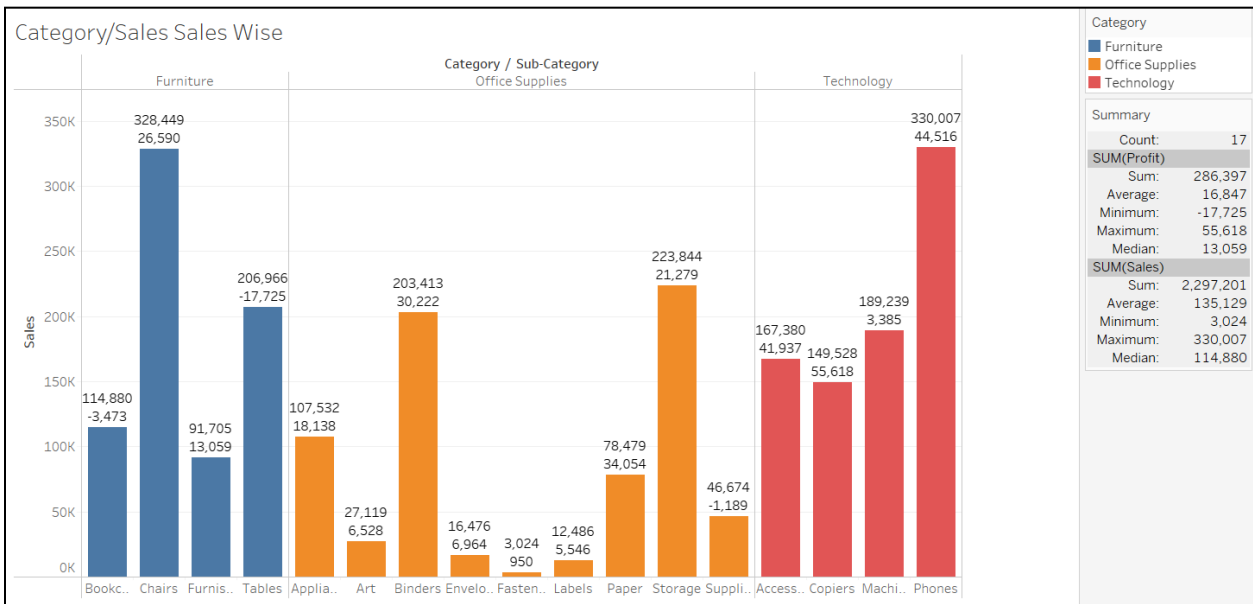**Total Orders: *9.9K*** – consistent volume.

Total Customers: *793* – reveals moderate customer base.
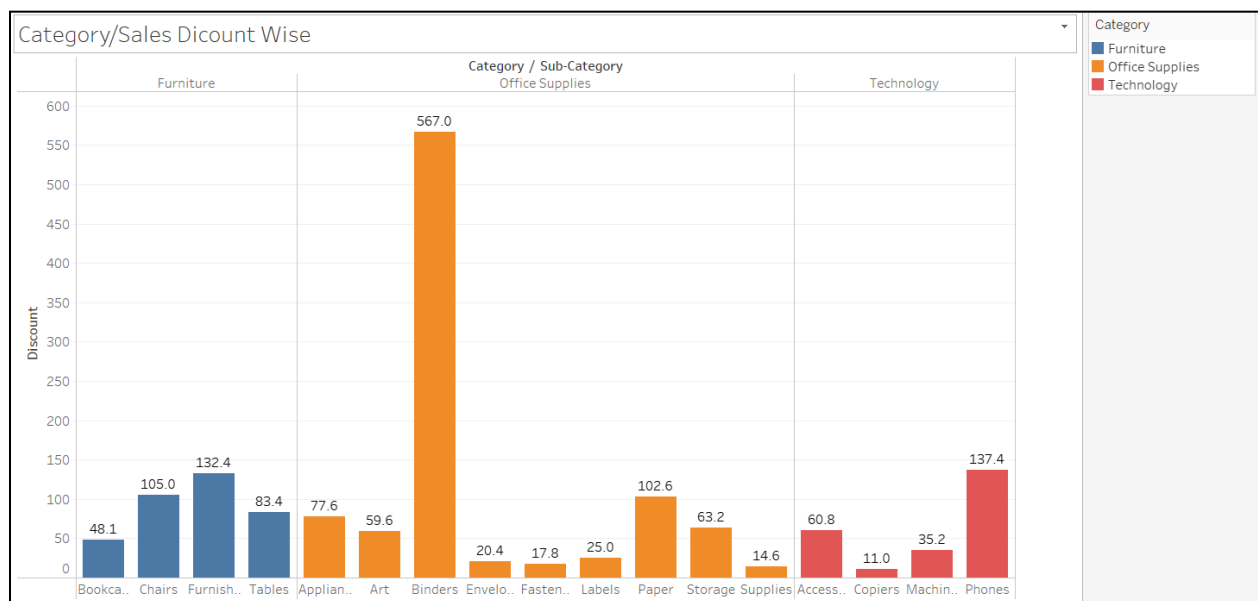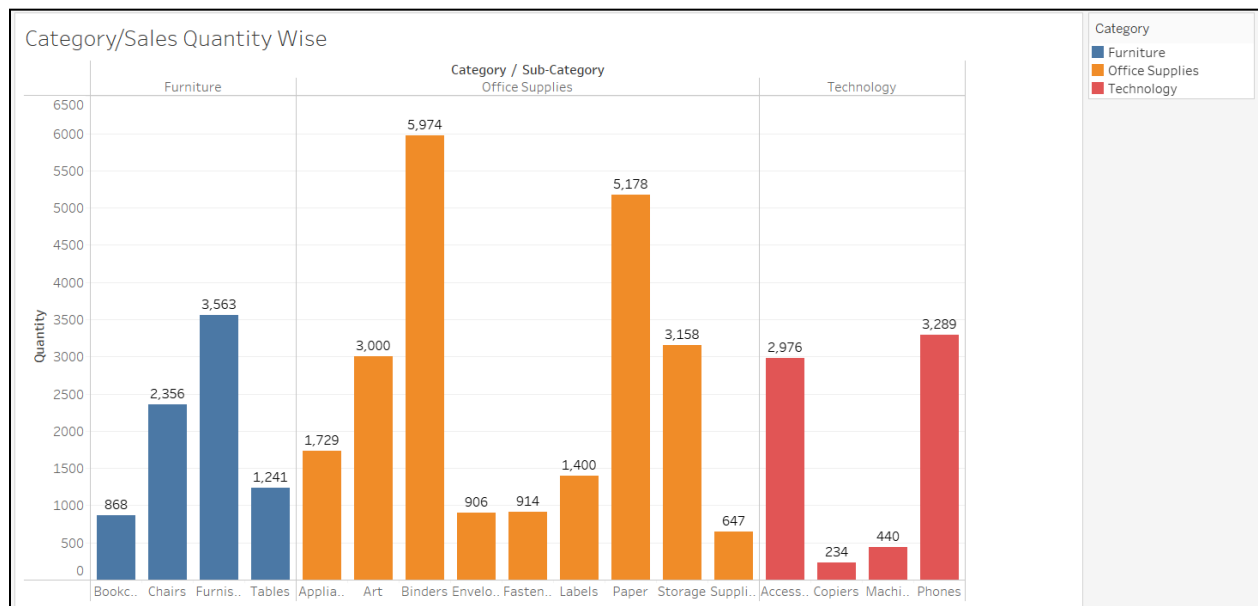
Top Region by Sales: *West* – leading both in sales and profitability.

Best Ship Mode: *Same Day* – highest average profit per order.

Most Discounted Product: *Tables* – alarming red flag due to deep discounts & loss.

Sales and Profit by Category/Sub-Category

Category/Sales Sales Wise

Category / Sub-Category

| | Furniture | | | Office Supplies | | | | | | | | | Technology | | | |

Sales

- Bookc.. 114,880 / -3,473
- Chairs 328,449 / 26,590
- Furnis.. 91,705 / 13,059
- Tables 206,966 / -17,725
- Applia.. 107,532 / 18,138
- Art 27,119 / 6,528
- Binders 203,413 / 30,222
- Envelo.. 16,476 / 6,964
- Fasten.. 3,024 / 950
- Labels 12,486 / 5,546
- Paper 78,479 / 34,054
- Storage 223,844 / 21,279
- Suppli.. 46,674 / -1,189
- Access.. 167,380 / 41,937
- Copiers 149,528 / 55,618
- Machi.. 189,239 / 3,385
- Phones 330,007 / 44,516

Category
- Furniture
- Office Supplies
- Technology

Summary

Count:	17
SUM(Profit)	
Sum:	286,397
Average:	16,847
Minimum:	-17,725
Maximum:	55,618
Median:	13,059
SUM(Sales)	
Sum:	2,297,201
Average:	135,129
Minimum:	3,024
Maximum:	330,007
Median:	114,880

Category/Sales Profit Wise

Category / Sub-Category

| | Furniture | | | Office Supplies | | | | | | | | | Technology | | | |

Profit

- Bookc.. -3,473
- Chairs 26,590
- Furnis.. 13,059
- Tables -17,725
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Category
- Furniture
- Office Supplies
- Technology

Category/Sales Quantity Wise

Category/Sales Dicount Wise

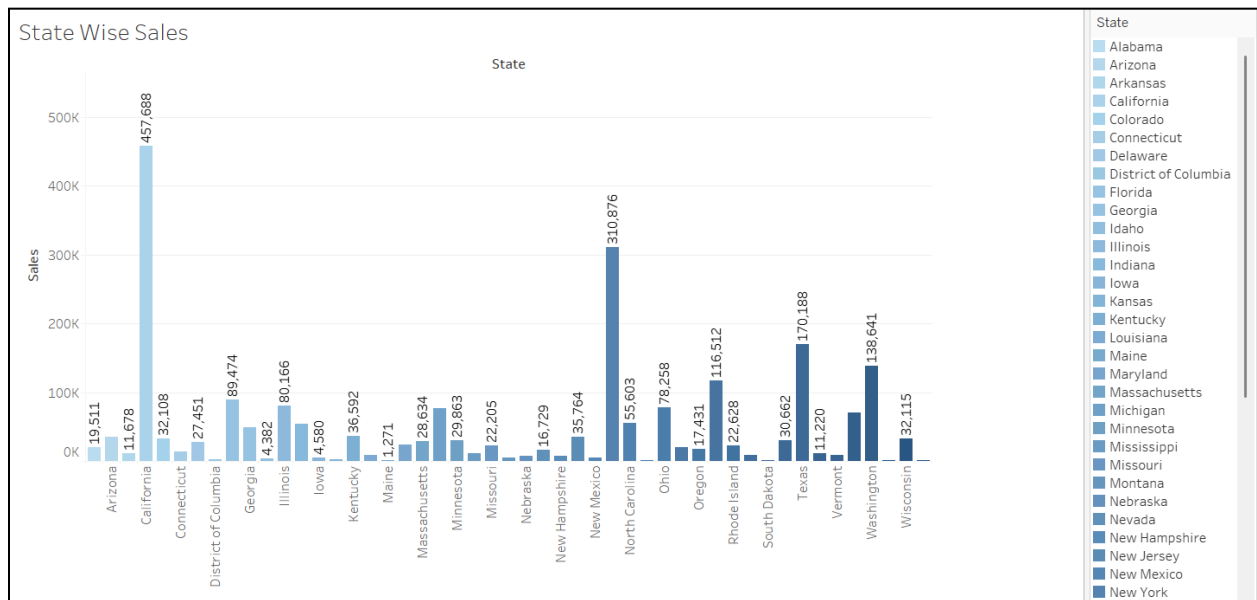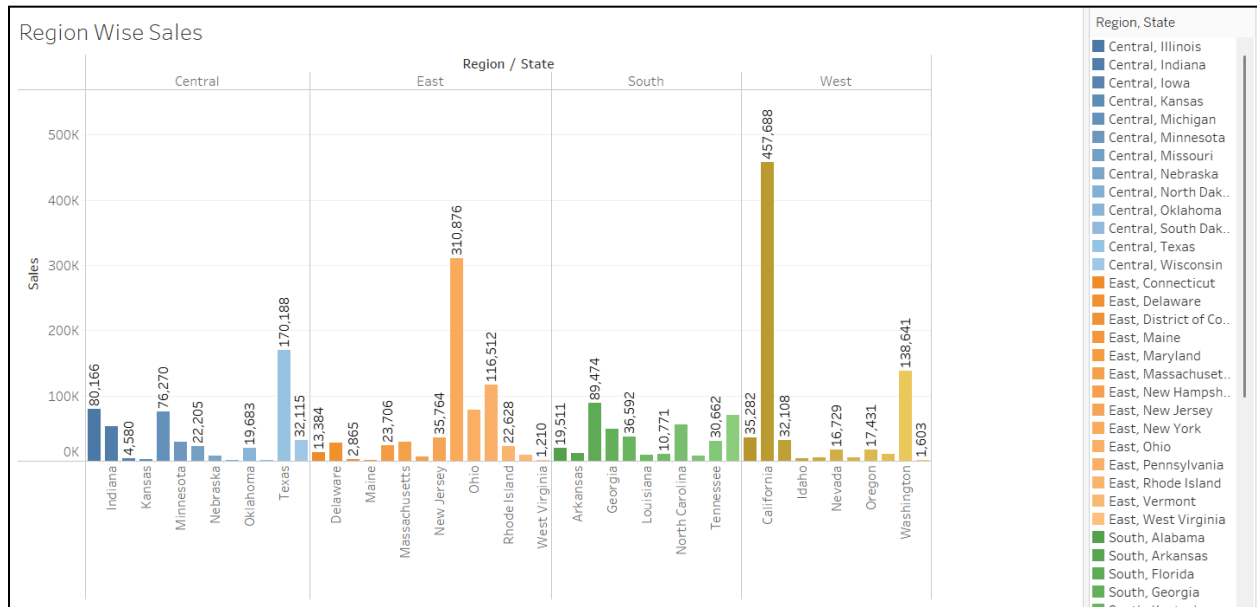## Sales and Profit by Category/Sub-Category
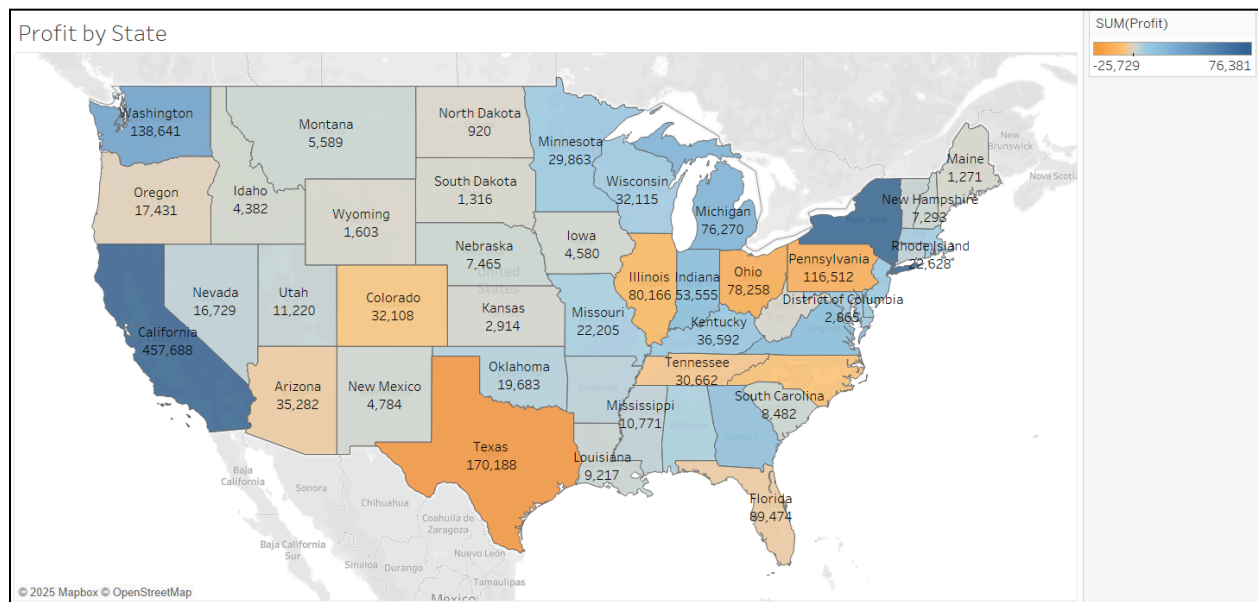
Technology leads in sales and profit.

Furniture, especially *Tables*, drives losses — high sales, but deeply negative profit.

Office Supplies is steady and profitable despite lower sales.

Sales ≠ Profit — We must revisit pricing & discounting, especially in Furniture.
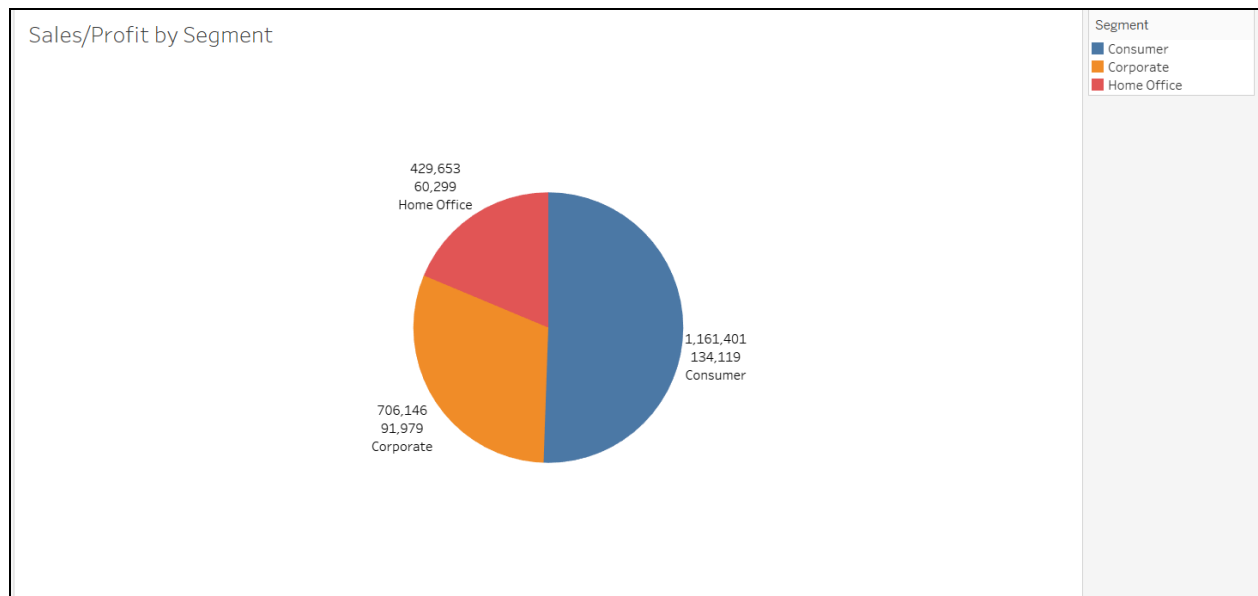
Sales & Profit by Region

Profit by State

- West and East dominate in both sales and profit.

- South and Central regions underperform — less revenue and smaller profit margins.

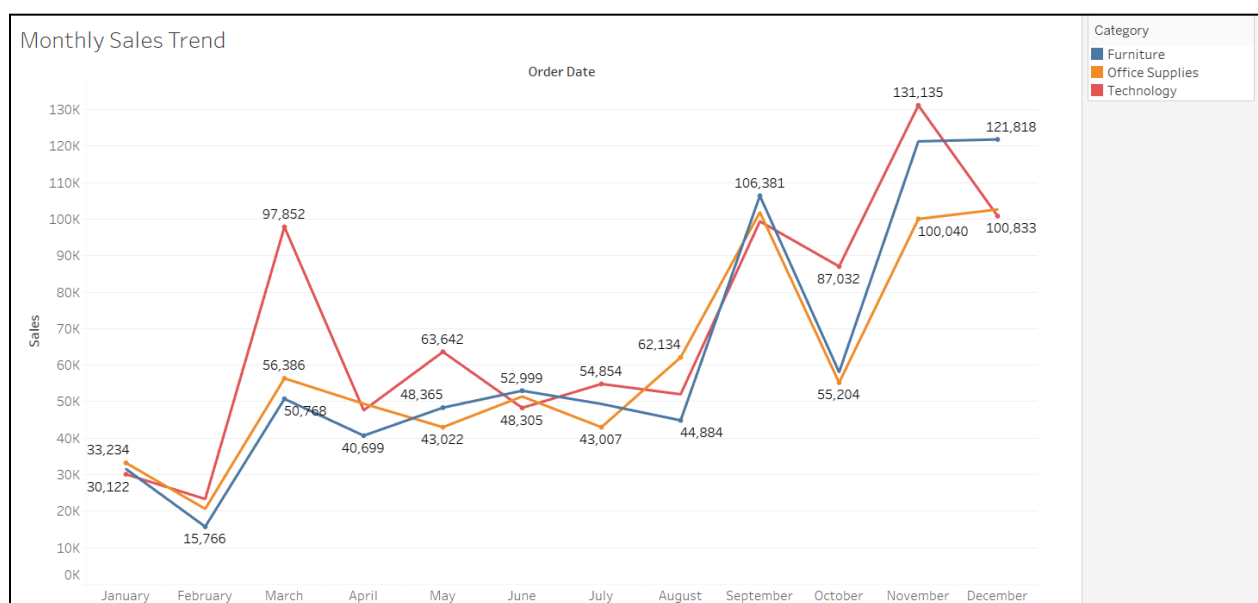**"South & Central are potential growth zones with strategic focus."**

Segment-Wise Analysis

- Consumer segment brings the most sales.

- Corporate and Home Office segments are leaner but offer better profit ratios.

"A tailored marketing approach can boost margins in profitable customer segments."

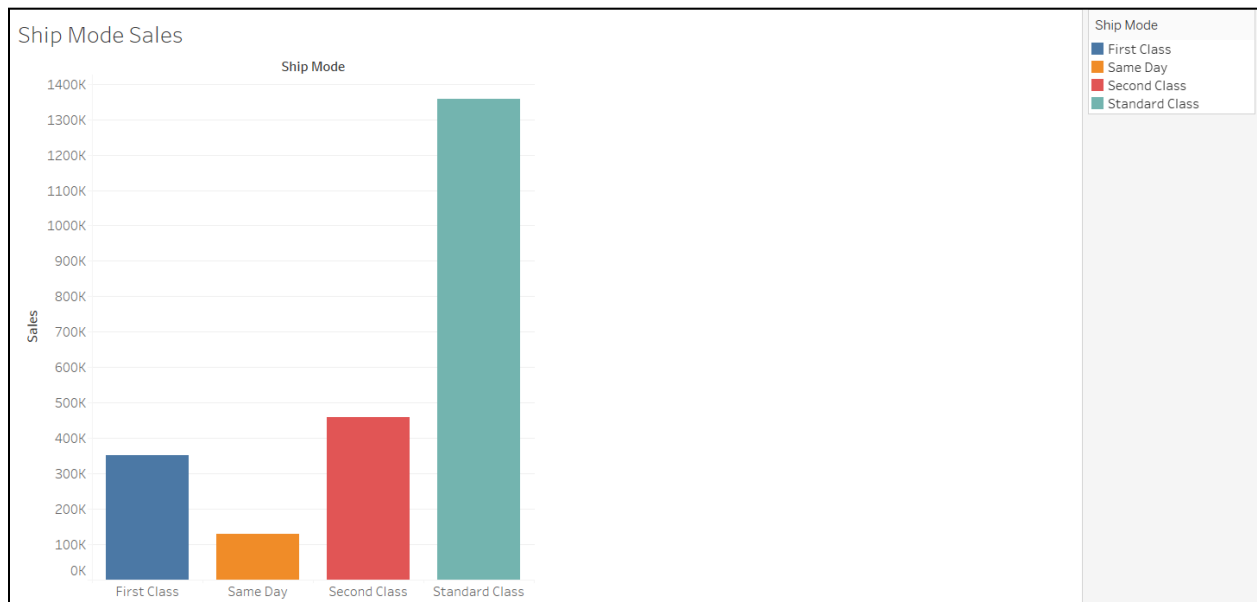## Monthly Sales and Profit Trend

- End-of-year months (Q4) spike in sales.

- However, profit often dips during those periods — likely due to discount campaigns.

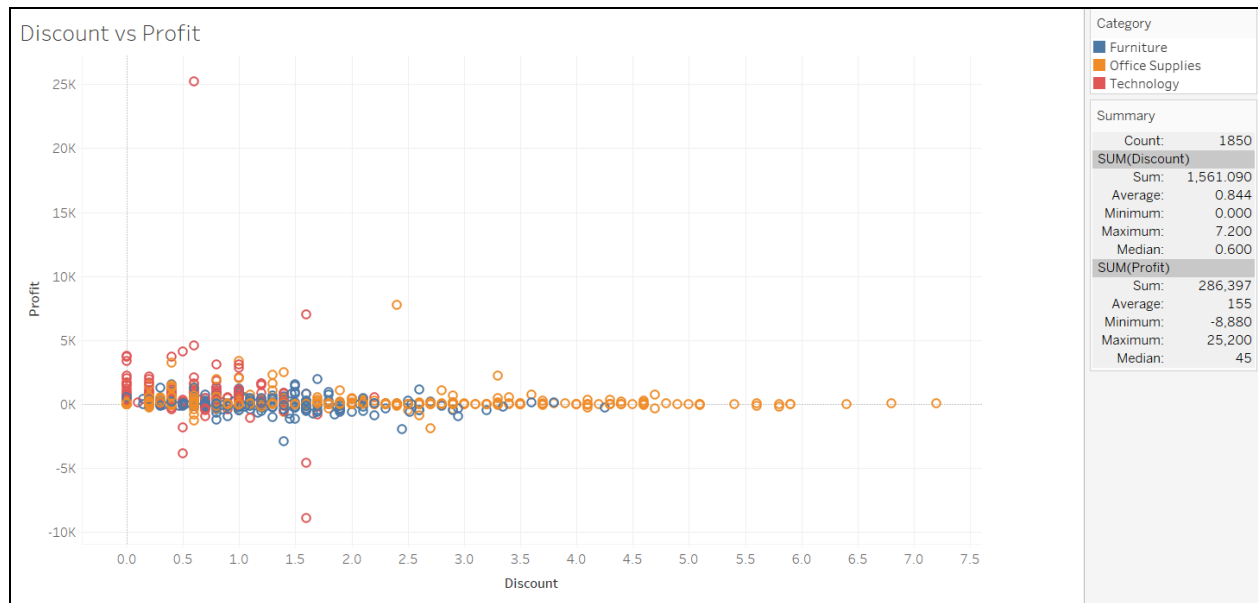**"We need smarter promotions to ensure profit follows the sales surge."**

Shipping Modes

- Standard Class is most popular.

- Same Day has fewer orders but highest profit margin per order.

"We may benefit by incentivizing premium delivery options like Same Day."
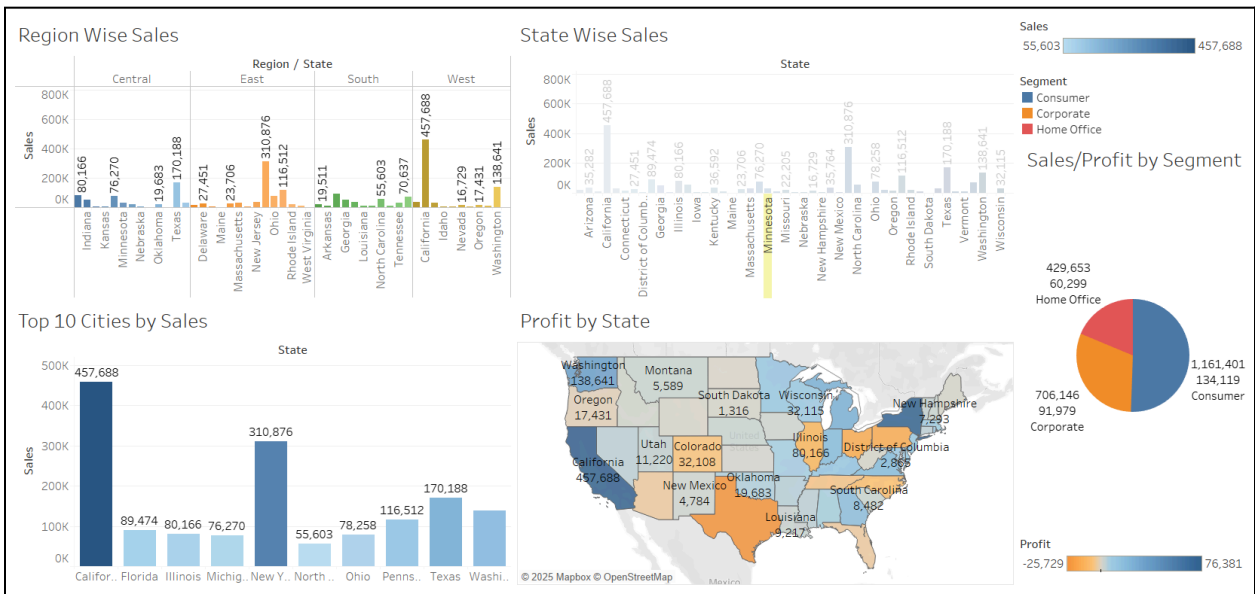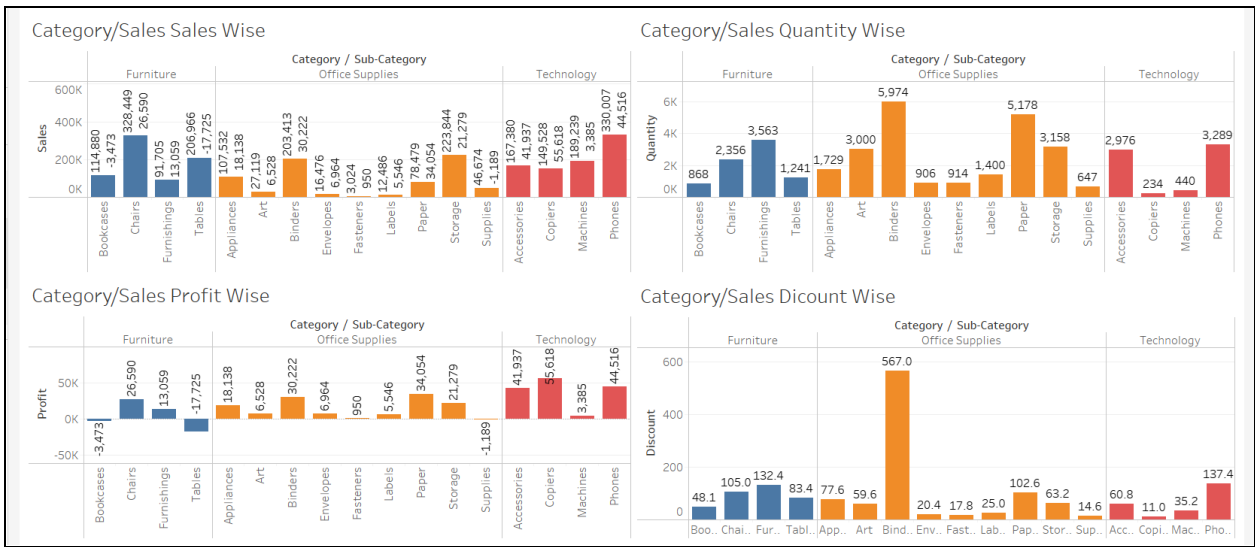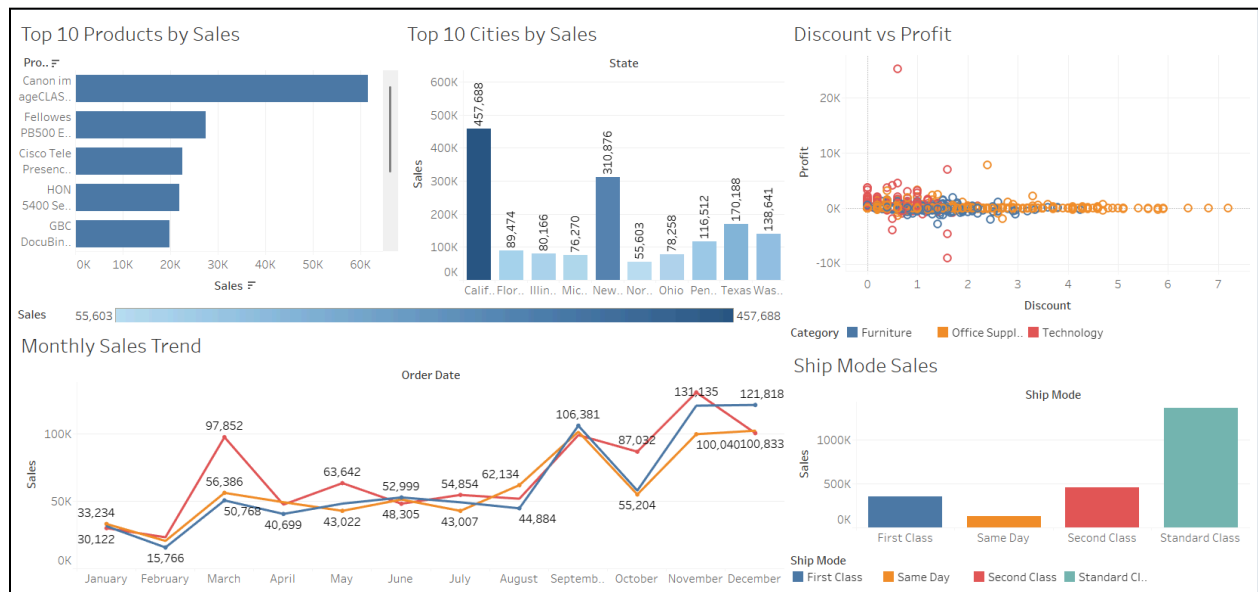
Discounts vs Profitability

- Heavily discounted products, like *Tables*, show high sales but huge losses.

- Modestly discounted items retain healthy profit margins.

"Discounts should be strategic — not habitual."

Strategic Summary

Category/Sales Sales Wise — Category / Sub-Category; Category/Sales Quantity Wise — Category / Sub-Category; Category/Sales Profit Wise — Category / Sub-Category; Category/Sales Dicount Wise — Category / Sub-Category

Region Wise Sales; State Wise Sales; Top 10 Cities by Sales; Profit by State; Sales/Profit by Segment

"To wrap up, here's the action plan driven by our data:"

1. **Review loss-making sub-categories (esp. *Tables*).**

2. **Design regional growth strategies for *South* & *Central*.**

3. **Optimize year-end promotions for profitability.**

4. **Promote profitable shipping methods.**

5. **Implement segmented marketing campaigns.**

6. **Reassess discounting strategies.**