# 1. Top Customers and Revenue Contribution

Insight: North America contributes significantly to top customers charts where as we have only few top customers from Europe.

| CustomerID	CustomerName	Region	SignupDate	No of Purchases so far	TotalValue
C0141	Paul Parsons	Europe	2023-02-23	10	10673.87
C0054	Bruce Rhodes	Asia	2024-09-29	8	8040.39
C0065	Gerald Hines	North America	2024-07-10	10	7663.70
C0156	William Adams	North America	2023-08-19	11	7634.45
C0082	Aimee Taylor	South America	2022-05-13	7	7572.91
C0188	Anna Ball	South America	2022-05-17	8	7111.32
C0059	Mrs. Kimberly Wright	North America	2024-04-07	8	7073.28
C0028	Jennifer Pena	Asia	2024-06-29	8	6819.57
C0099	Rodney Eaton	South America	2023-01-29	8	6715.72
C0165	Juan Mcdaniel	South America	2022-04-09	9	6708.10
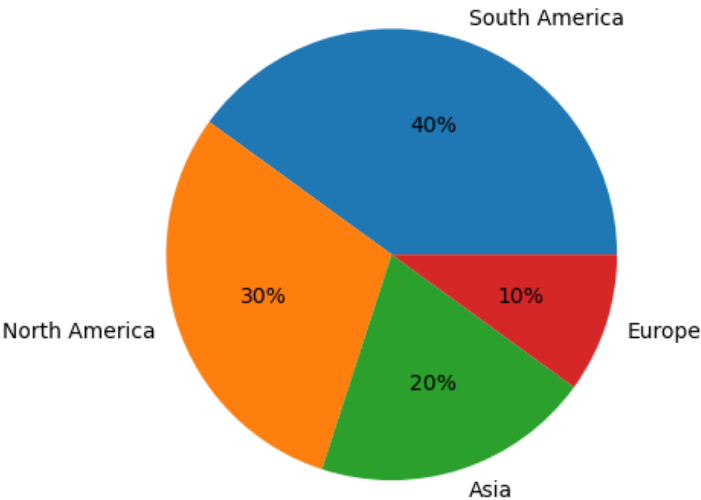
Recommendation: focusing on regions with lower revenue like Europe through targeted marketing campaigns.

2. Customer Retention and Churn Rate

Insight: Analysis shows that approximately **94%** of customers are repeat buyers, while **6%** are one-time purchasers. This suggests we have an excellent customer engagement strategy.

3. Product Demand and Seasonality

Insight: Electronics sees a **50% increase in sales during Q3**, indicating back-to-college driven demand.

Category-wise Sales Trend Over Time
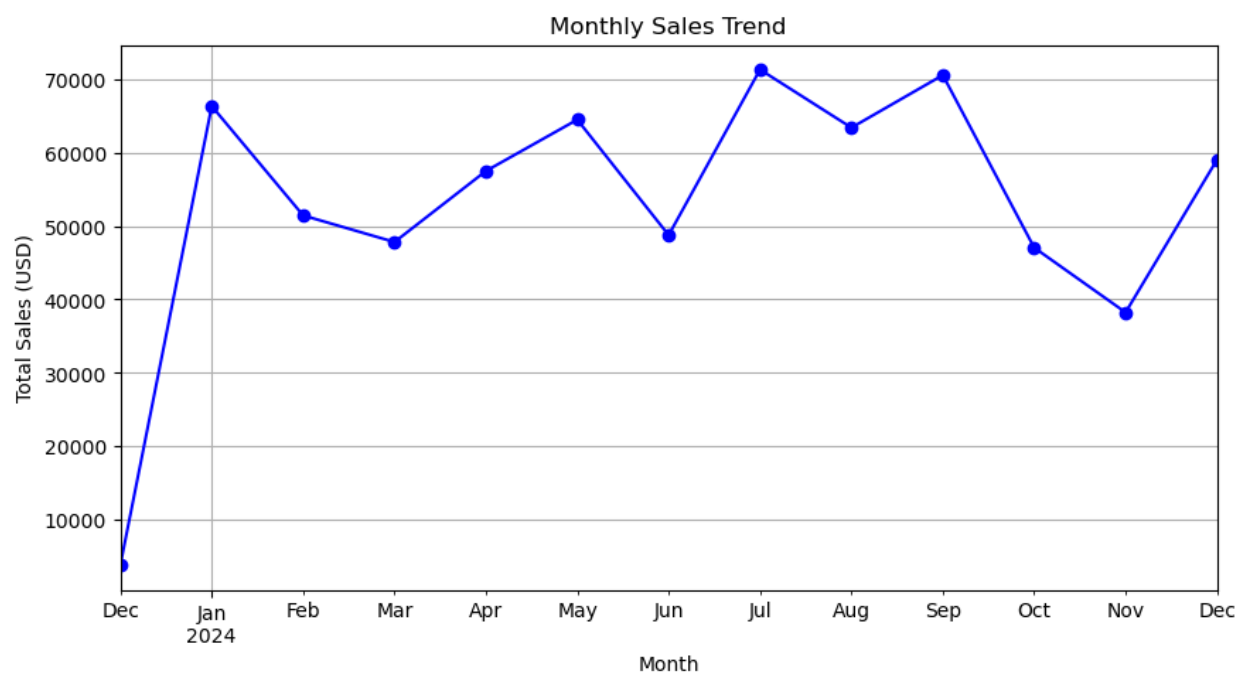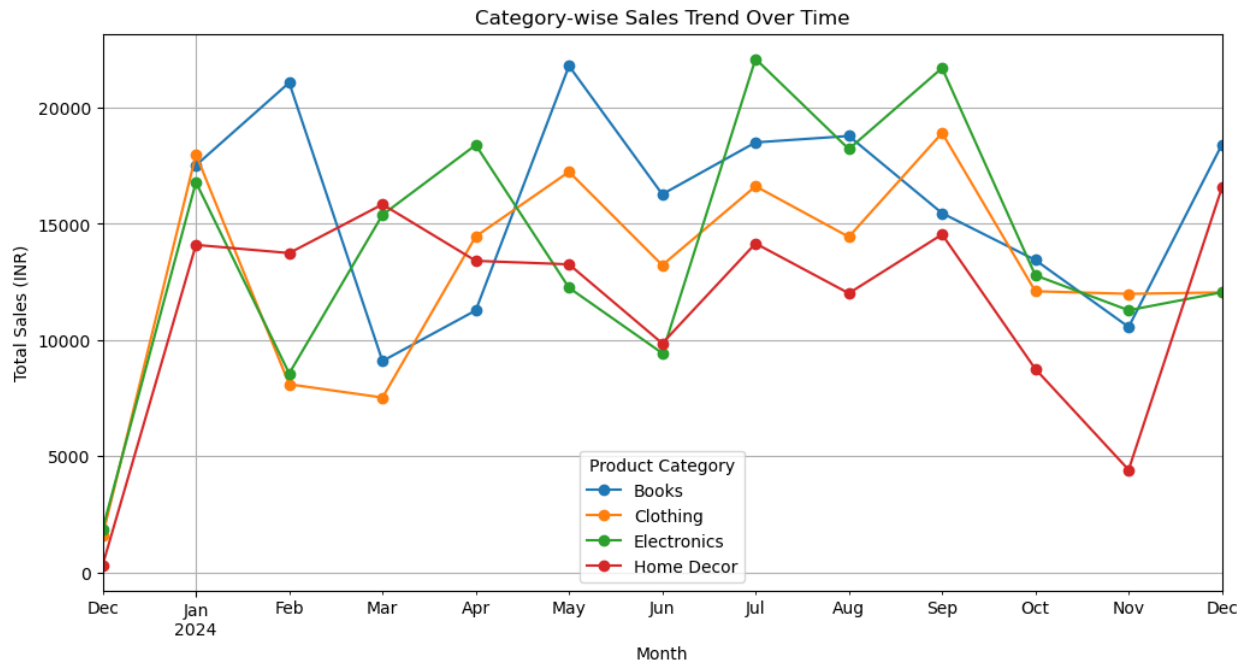
4. Category-wise Performance and Average Order Value (AOV)

Insight: High-priced product categories, such as **Electronics**, contribute the most to revenue but have a lower order frequency. Meanwhile, **Low-cost items**, like **Accessories**, have frequent sales but lower revenue contribution.

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Average Order Value by Region:
 Region
Asia            697.591606
Europe          710.489872
North America   624.235246
South America   721.554474
dtype: float64

Average Order Value by Category:
 Category
Books           711.657296
Clothing        728.818684
Electronics     711.746063
Home Decor      608.443266
dtype: float64
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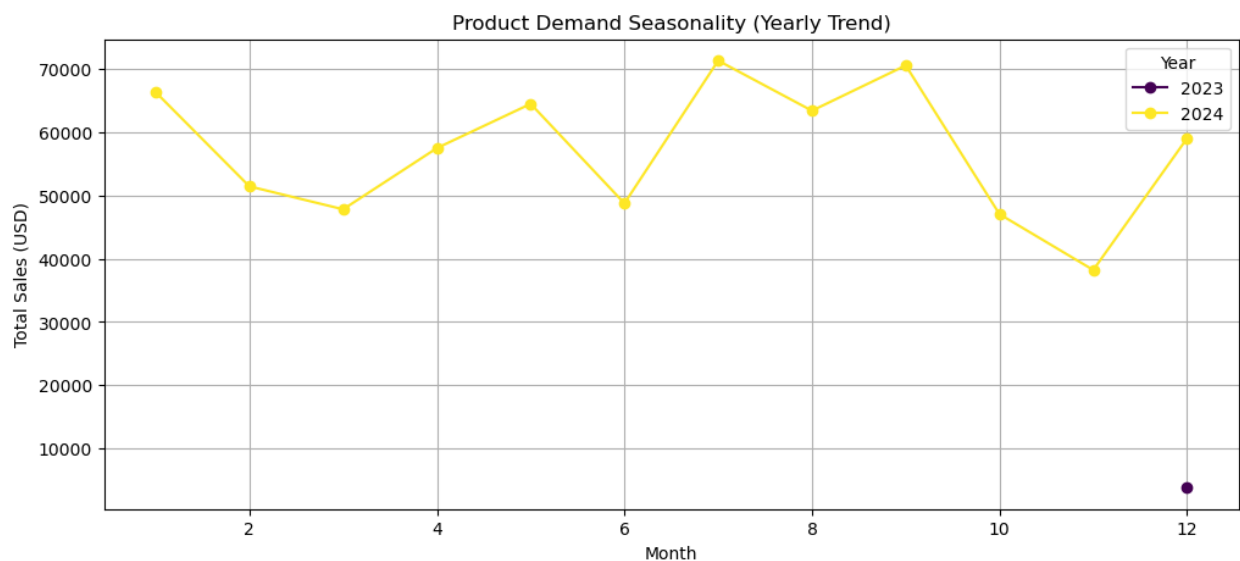
Recommendation: Introduce cross-selling strategies by bundling high and low-value items. Additionally, offering bulk discounts can encourage higher spending per transaction.

5. Monthly Sales Trends

Insight: highest sales appear to center around mid-year, pointing to potential seasonal demand.

Conclusion

By addressing regional opportunities, enhancing customer engagement, and implementing targeted marketing strategies, we can effectively drive growth and optimize our overall performance.