

# Data Science Assignment

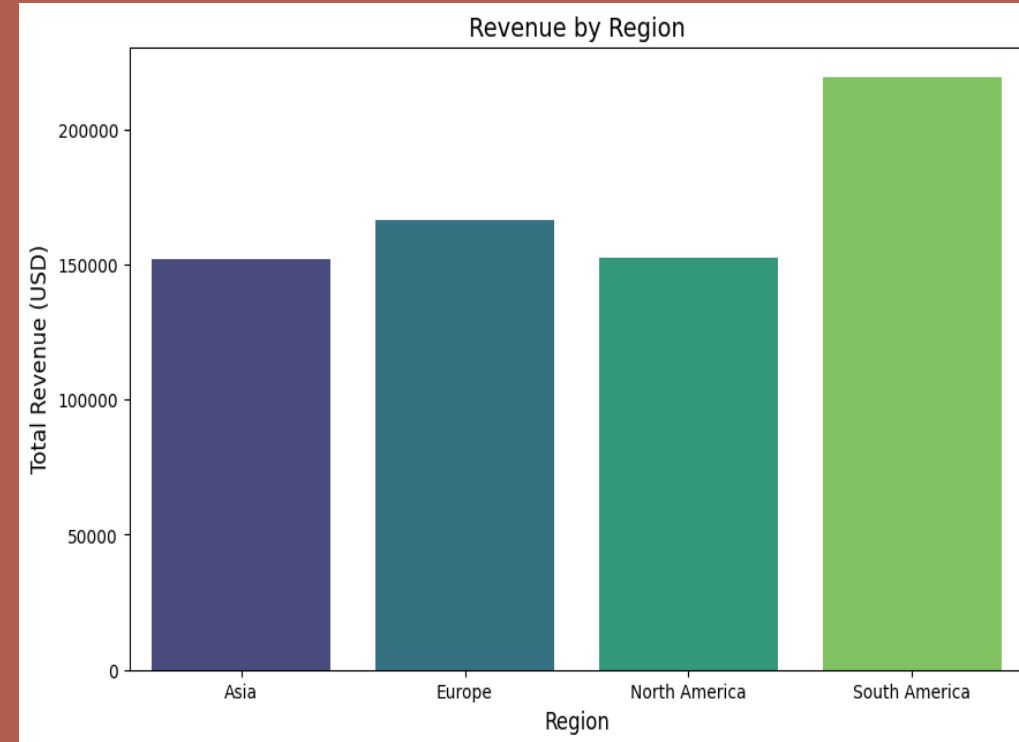
## Business Insights

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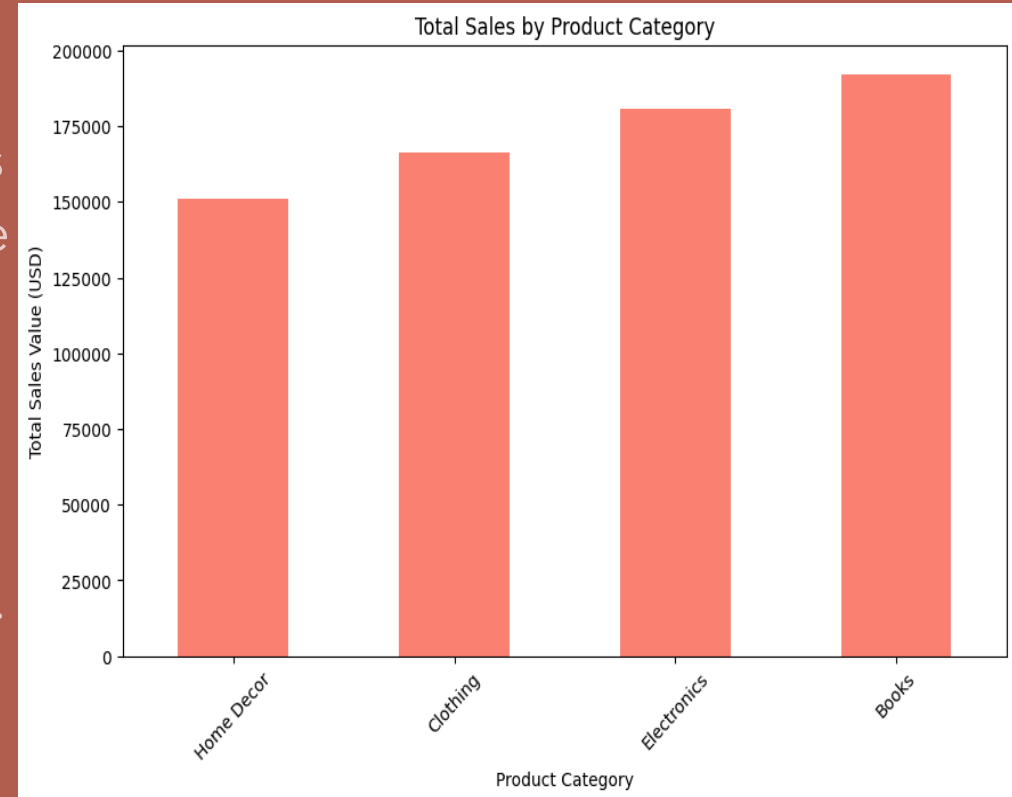
# Revenue by Region

South America is the top revenue-generating region, earning significantly more than other regions. This highlights its strong market potential and opportunities for growth. Prioritizing business expansion in South America can lead to higher returns, as the region's economic environment supports profitability. By focusing efforts here, companies can tap into its robust consumer base, expanding their market share and driving revenue growth. Investing in South America offers the chance to maximize returns while leveraging its favorable conditions for business success. Therefore, companies looking to boost profits should consider South America a key area for future expansion and strategic investments.



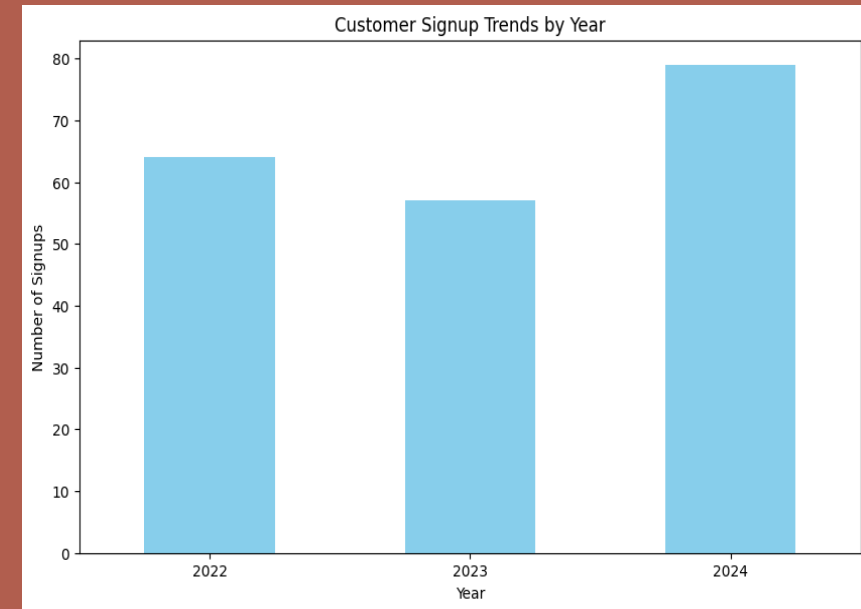
# Product Category Sales

The "Books" category is the top contributor to total sales, showing it is a strong-performing segment. However, relying heavily on one category can limit overall growth. Expanding focus to other areas, such as "Clothing," could help create a more balanced revenue stream. Offering promotions or diversifying product offerings in these categories may attract more customers and boost sales. This approach not only reduces dependence on "Books" but also strengthens the overall business by tapping into new opportunities. By balancing performance across categories, the business can achieve more stable and sustainable growth over time.



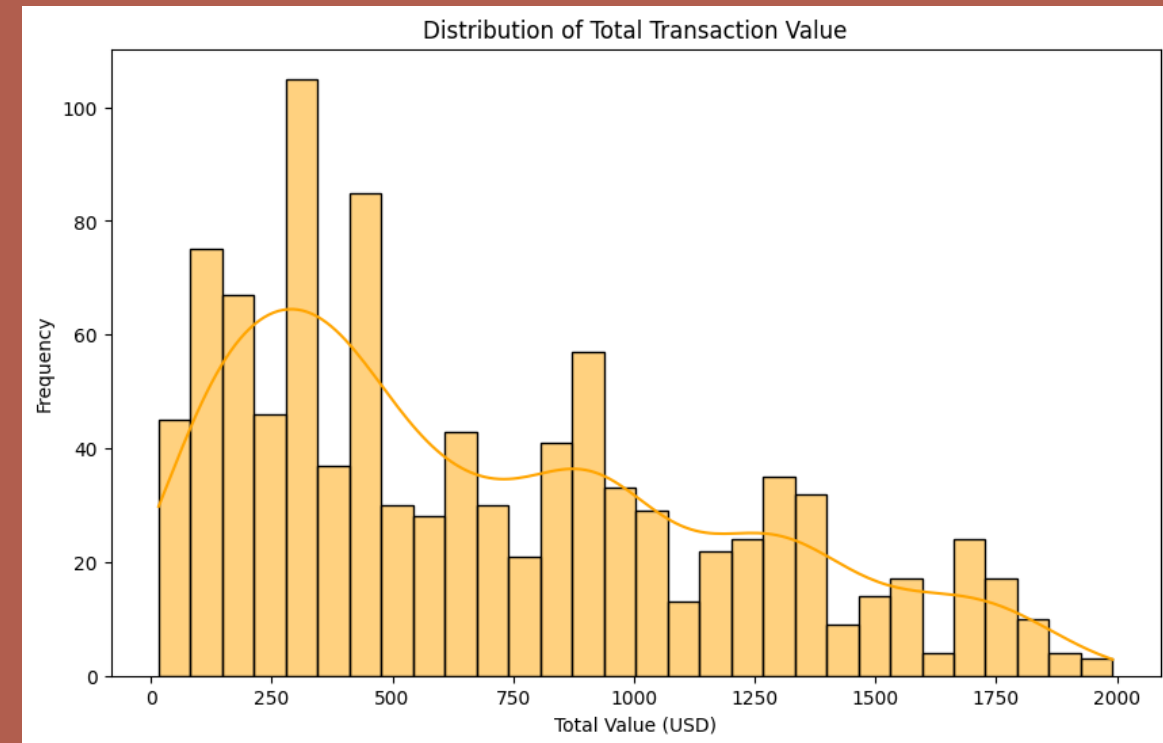
# Customer Signup Trends

Customer signups have generally increased over the years, with 2024 marking the highest point, showing strong market interest and effective customer acquisition strategies. However, the signup trend in 2023 was lower compared to 2022 and 2024, indicating a slight dip during that period. This could suggest temporary challenges or changes in market dynamics. Despite this, the overall upward trend highlights the success of strategies in attracting new customers. Addressing the factors behind the 2023 decline could further enhance growth, ensuring consistent performance and sustained customer interest in the future.



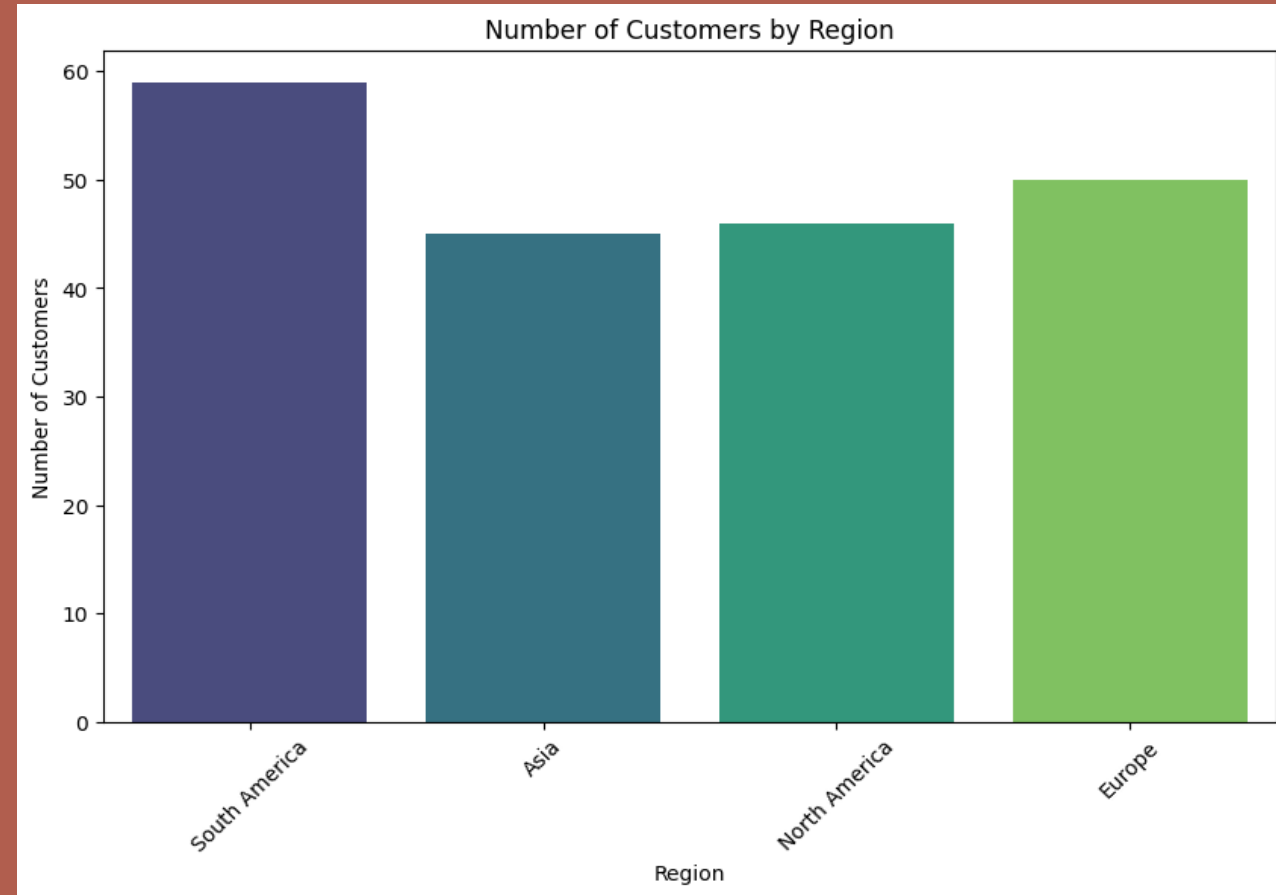
# Distribution of Transaction Value

The distribution of total transaction values indicates that most transactions fall within the \$200-\$400 range, highlighting this as the typical transaction value for customers. The distribution is right-skewed, with a significant decline in the frequency of transactions as the value increases beyond \$1,000, suggesting that high-value transactions are relatively rare. This pattern reflects a majority of lower-value transactions, presenting an opportunity to develop strategies, such as premium offerings or bulk discounts, to increase the frequency of high-value transactions. Additionally, the clear segmentation of transaction values enables businesses to categorize customers into low, medium, and high-value groups for more targeted and effective marketing campaigns.



# Customer Distribution by Region

South America has the highest number of customers, which explains its strong revenue performance compared to other regions. This shows that having a large customer base directly contributes to higher revenue generation. On the other hand, regions like Asia have fewer customers, which limits their revenue potential. To improve overall revenue distribution and balance across all regions, it would be beneficial to focus on increasing customer acquisition in regions with fewer customers, such as Asia. Strategies like localized marketing campaigns, promotions, and partnerships could help attract more customers in these areas and contribute to greater revenue growth globally.



Thank You

