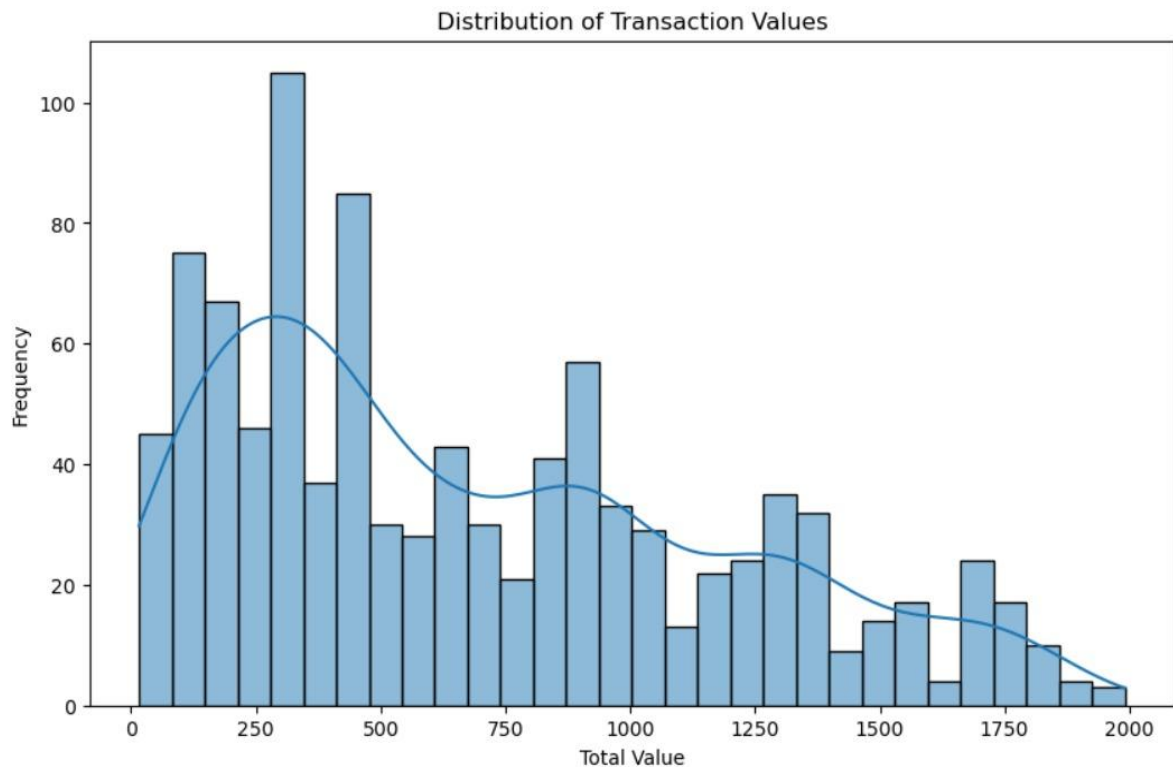


Task 1: Exploratory Data Analysis (EDA) and Business Insights



Distribution of Transaction Values

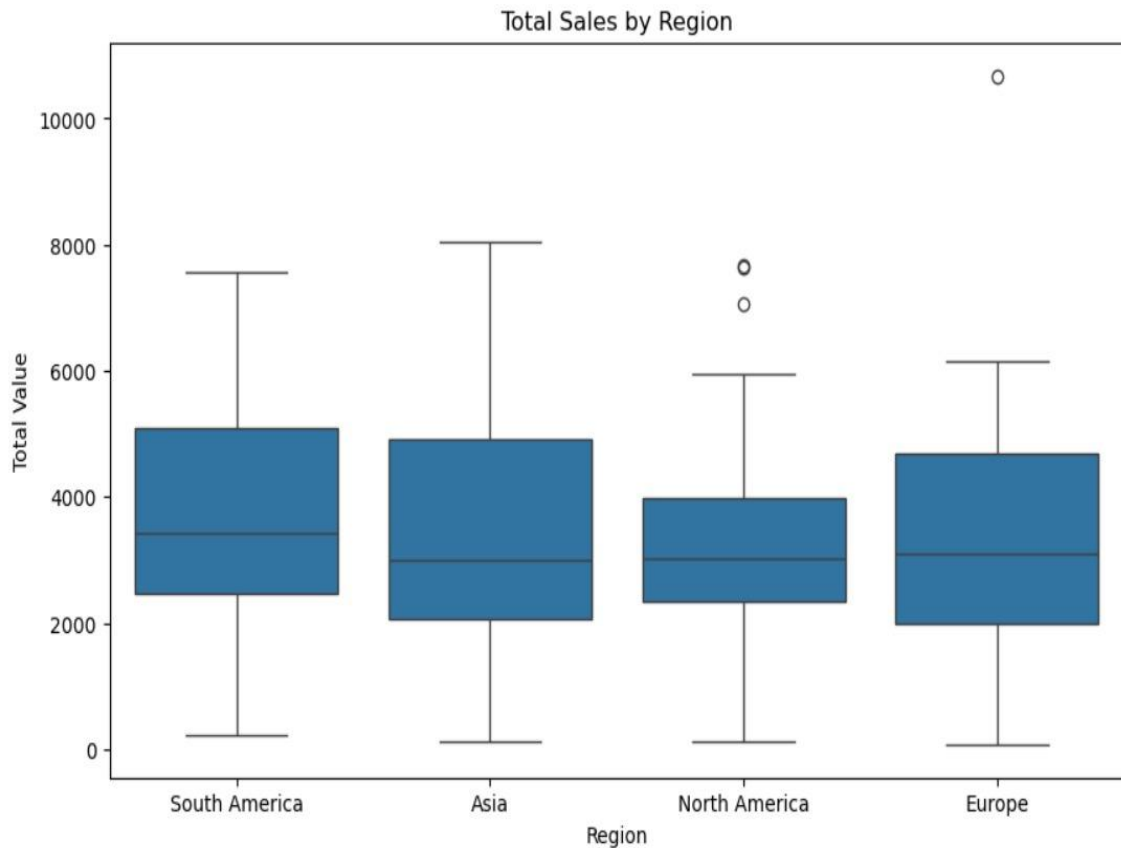
Observation: The provided histogram shows a distribution of transaction values with a bell-shaped curve, suggesting a normal distribution.

Details:

- **Peak:** The distribution peaks around 250 units, indicating a large number of transactions in this range.
- **Skewness:** The distribution shows a right skew, meaning the tail is longer on the right side, suggesting the presence of a few high-value transactions.
- **Spread:** The transaction values span from 0 to 2000 units, showing a wide range of transaction amounts.
- **Frequency:** The frequency of transactions decreases as the transaction value increases, indicating a higher probability of lower-value transactions.
- **Normal Distribution:** The curve superimposed on the histogram further supports the notion of a near-normal distribution, with a few outliers.

Conclusion: The histogram reveals that most transactions fall within a range of 0 to 500 units, with a few large transactions beyond this range. The distribution exhibits a near-normal pattern, suggesting a typical distribution of transaction values.

Task 1: Exploratory Data Analysis (EDA) and Business Insights



Analysis of Total Sales by Region

This box plot shows the total sales by region.

Observations:

- **Asia and Europe have the highest median sales.**
- **South America has the lowest median sales.**
- **All regions have significant variation in sales.** This is evident from the length of the box plot and the presence of outliers.
- **There is one extreme outlier in North America.** This suggests a potential data point that might need to be investigated further.

Insights:

- **Asia and Europe seem to be the most profitable regions.** This may be due to factors like larger market sizes or stronger demand for products.
- **South America has a lower sales volume overall.** This could be influenced by economic conditions or specific market dynamics within the region.