## 1. Customer Sign-Ups Trend:

The analysis of customer sign-ups reveals that the majority of sign-ups occur during the weekend, particularly on **Saturdays** and **Sundays**. This indicates that customers tend to engage more with the platform during their leisure time, suggesting that promotional activities and campaigns could be optimized around these days to maximize engagement and new user acquisition.

## 2. Customer Regional Distribution:

The customer base is fairly distributed across different regions, including South America, North America, Asia, and Europe, with South America showing the highest representation. However, despite this relatively even distribution, **Asia and North America** have fewer customers compared to **South America**. This could indicate potential market opportunities in these areas, where targeted marketing campaigns or region-specific products might help boost customer acquisition.

#### 3. Product Price Range:

The pricing analysis shows that the general price range for products is up to 500 USD, with the majority of products falling within a narrower price range of 147 to 397 USD. This indicates that most of the products are positioned as mid-range offerings, catering to a wide customer base. However, products priced above this range are relatively limited, which may suggest potential for introducing more premium products to capture a higher-income demographic.

## 4. Price Range by Product Category:

The analysis of product categories reveals that the **Books** category contains the most expensive items, whereas the **Home Decor** category has the least expensive items. s in the Home Decor category to broaden the appeal to a wider customer base.

#### 5. Correlation Between Cart Value and Product Prices:

There is a **strong correlation between the total cart value and the price of items**. This suggests that customers with higher-value carts tend to purchase higher-priced items. Retail strategies could leverage this insight by recommending higher-priced products or offering bundle deals to increase the average cart value per customer.

#### 6. Customer Cart Value Distribution:

For the majority of customers, the total cart value is **below 500 USD**, with most purchases falling within this range. Retail strategies aimed at increasing cart value could include offering premium products, upselling higher-priced items, or providing incentives such as free shipping or discounts for larger orders.

# 7. Best-Selling Products by Quantity:

The analysis of sales volume reveals that the **Sound Wave Headphones** and **Active Wear Smartwatch** are the most sold products by quantity. These products are popular among customers and may represent key market segments. Targeted promotions or advertising campaigns could focus on these high-demand items to drive further sales.