

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

- **Top-Selling Products:**

The bar chart titled "Top 10 Most Purchased Products" shows that the "ActiveWear Smartwatch" leads in sales, followed by "SoundWave Headphones" and "BookWorld Biography." This data is essential for managing inventory, refining marketing strategies, and considering potential product expansions.

- **Regional Market Share:**

The pie chart "Customer Distribution by Region" reveals that "South America" holds the largest share of customers, making up around 29.5% of the total. This insight can inform targeted marketing efforts, regional growth initiatives, and inventory planning based on demand in different areas.

- **Seasonal Sales Trends:**

The line graph "Monthly Sales Trends" displays a fluctuating sales pattern, with a notable spike in January 2024, followed by a dip and another peak in July. This trend can help forecast future sales cycles, plan for seasonal promotions, and optimize inventory levels to align with demand.

- **Product Category Popularity:**

While not directly visualized, the data on product categories offers valuable insights into which types of products are most popular and generate the highest revenue. This can guide decisions about refining the product range, reallocating marketing resources, and spotting new opportunities for growth.

- **Customer Lifetime Value (CLTV):**

Although CLTV isn't explicitly calculated, the available data on customer sign-up dates and purchase history can be analyzed to estimate CLTV across different regions. This can help identify high-value customer segments, create targeted loyalty programs, and enhance customer retention strategies to drive revenue growth.