EDA PDF FILE

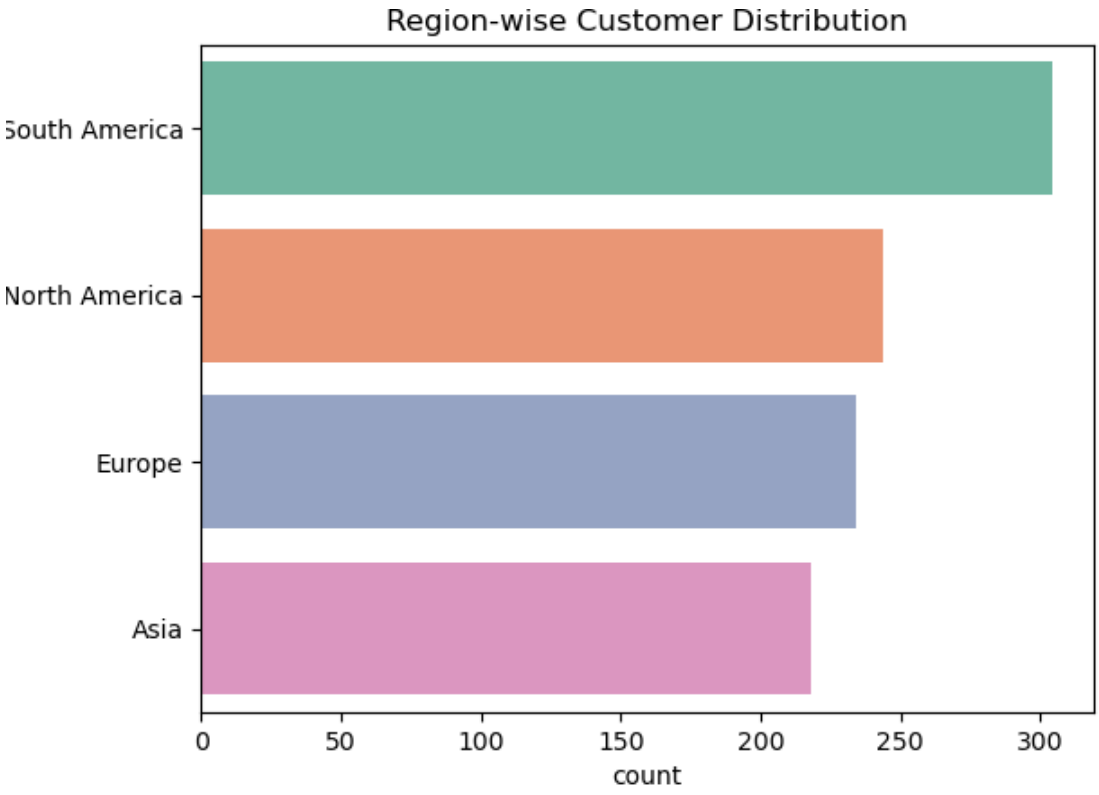
sns.countplot(data=final_df, y='Region', order=custm_dist.index, palette='Set2')

 # Add a title

plt.title("Region-wise Customer Distribution")

 # Show the plot

plt.show()



 # Visualize top categories

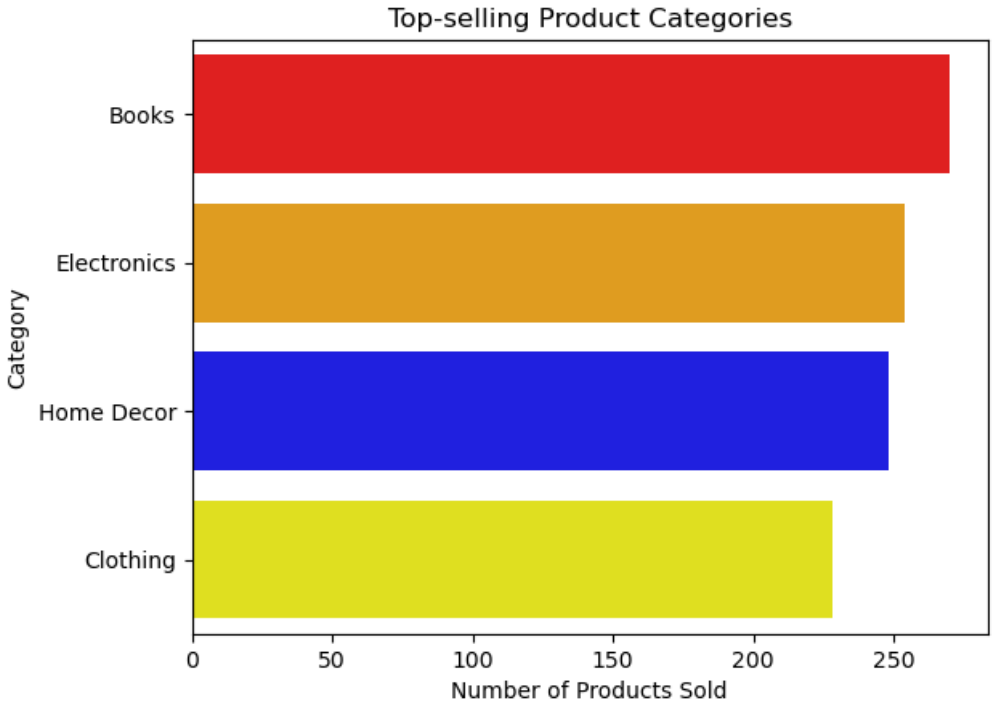
color = ('red','orange','blue','yellow')

sns.barplot(x=top_product.values, y=top_product.index,palette = color)

plt.title("Top-selling Product Categories")

plt.xlabel("Number of Products Sold")

plt.show()



 # Monthly revenue analysis via graph

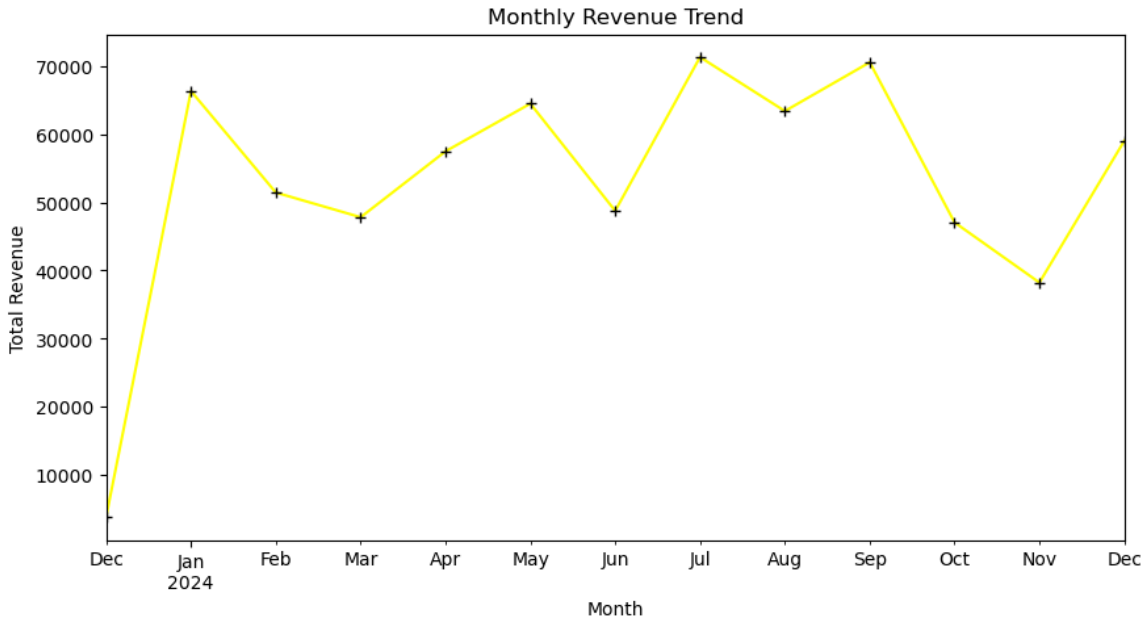
color = ('green')

monthly_revenue.plot(kind='line', figsize=(10, 5), marker='+',color = 'yellow', markerfacecolor='black', markeredgecolor='black')

plt.title("Monthly Revenue Trend")

plt.ylabel("Total Revenue")

plt.show()



 # Customer signups over the years

signup_trends =
custm_df['SignupDate'].dt.year.value_counts().sort_index()

print("\nCustomer Signup Trends:\n", signup_trends)

plt.figure(figsize=(8, 6))

sns.lineplot(x=signup_trends.index, y=signup_trends.values,
palette="Blues_d")

plt.title("Customer Signup Trends Over the Years", fontsize=16)

plt.xlabel("Year", fontsize=14)

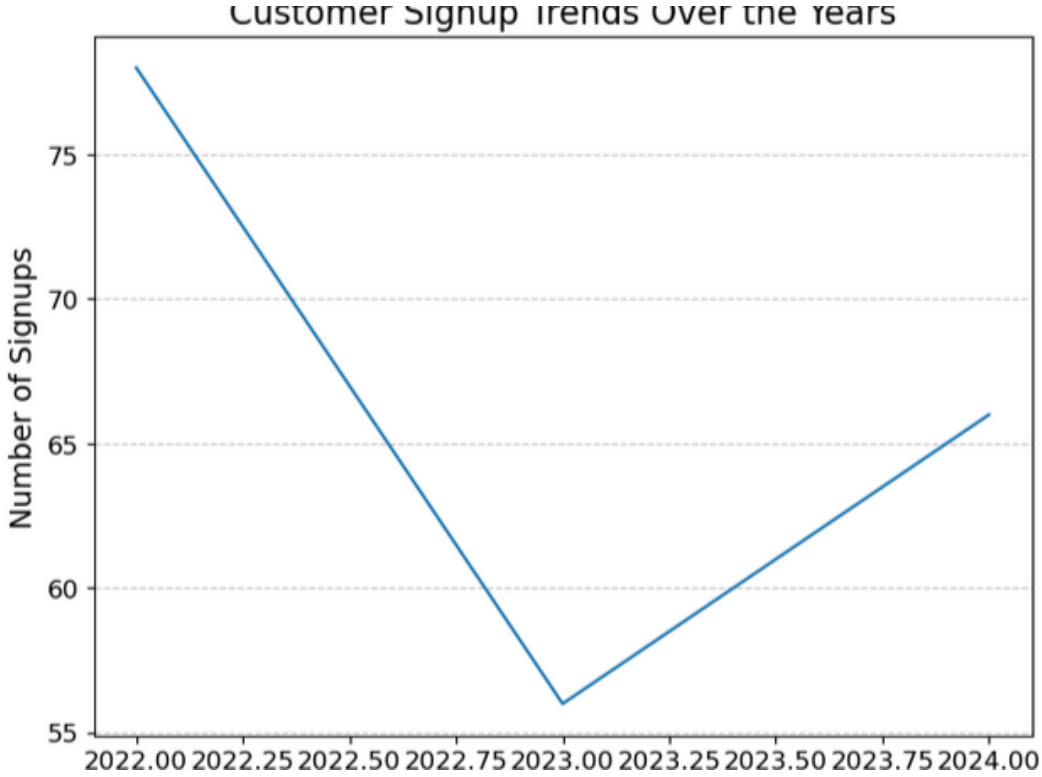
plt.ylabel("Number of Signups", fontsize=14)

plt.xticks(fontsize=12)

plt.yticks(fontsize=12)

plt.grid(axis='y', linestyle='--', alpha=0.7)

plt.show()


Customer Signup Trends Over the Years
Number of Signups
75
70
65
60
55
2022.00
2022.25
2022.50
2022.75
2023.00
2023.25
2023.50
2023.75
2024.00