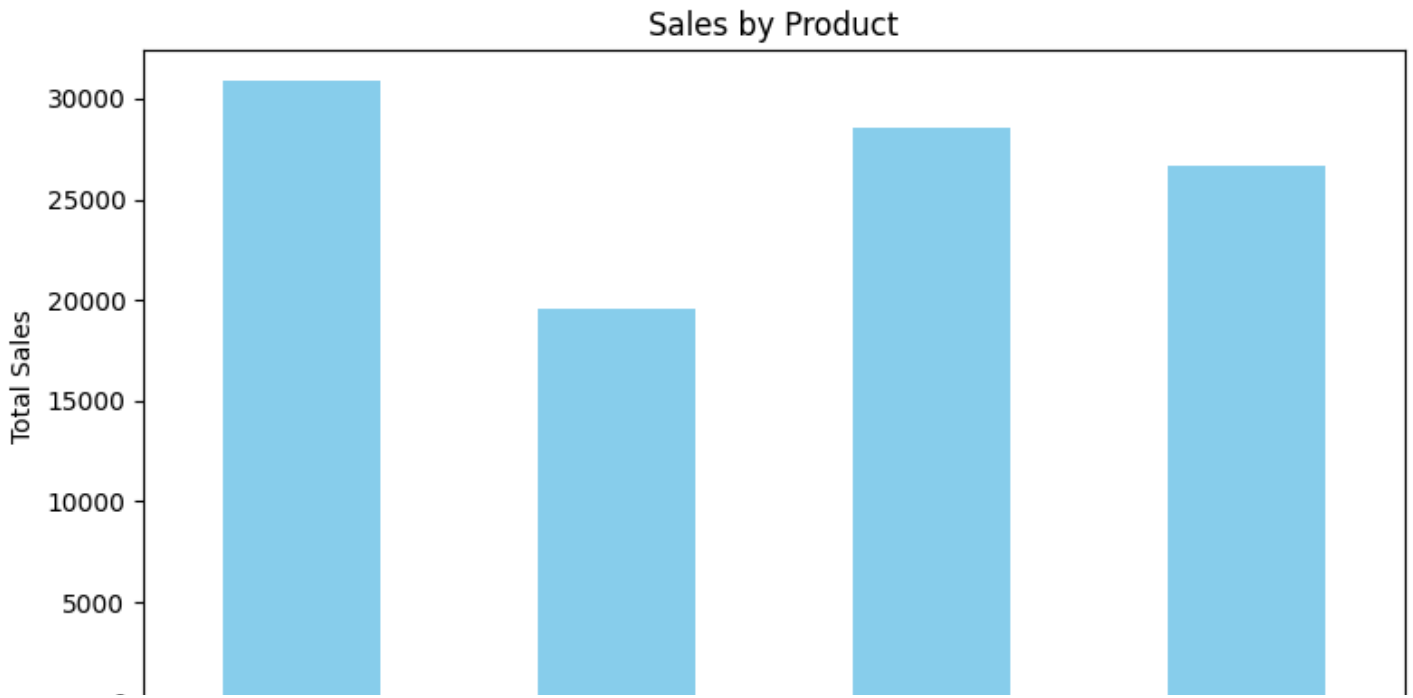
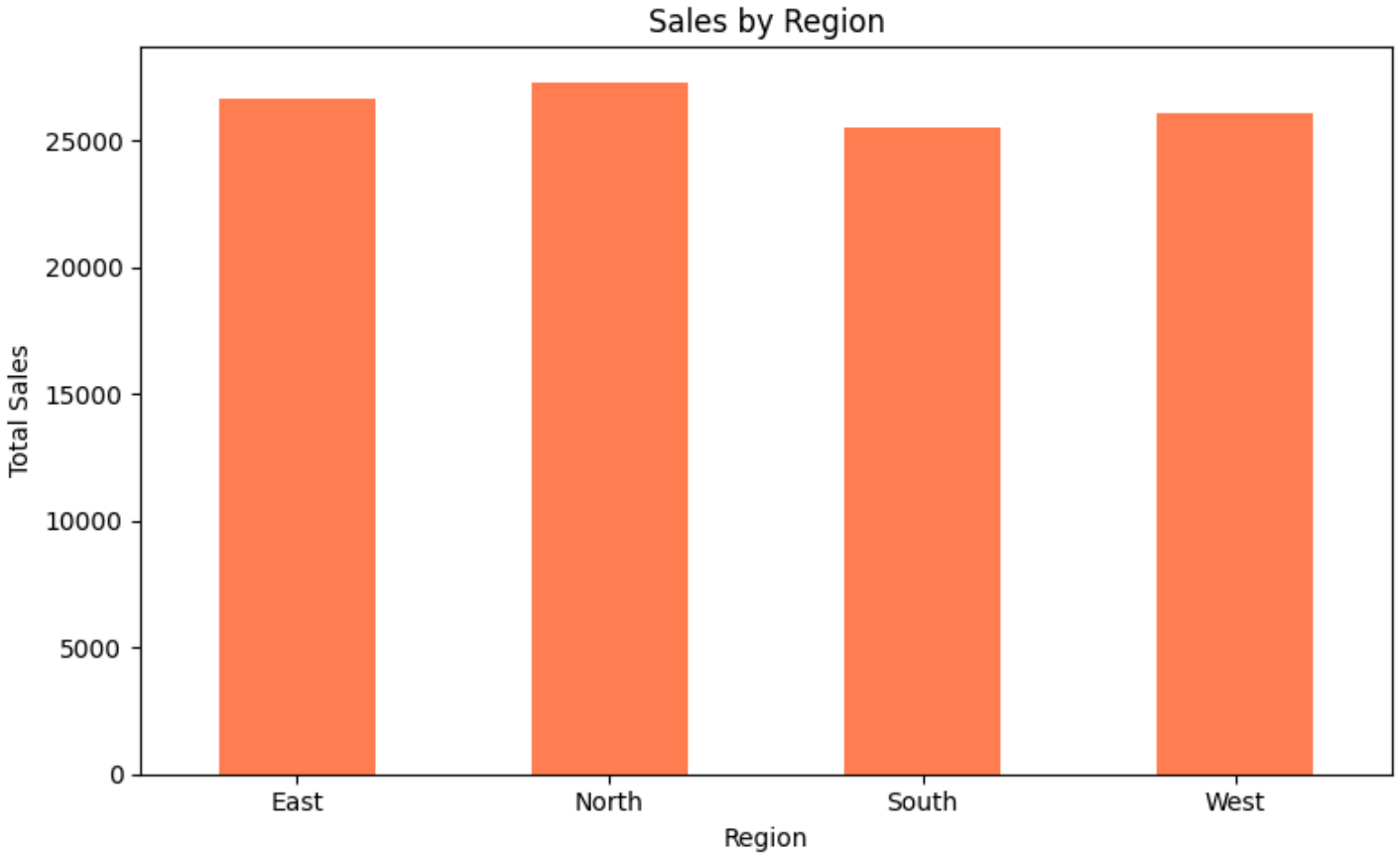
Task 5 : Data Analysis on CSV Files.

```
import pandas as pd
import matplotlib.pyplot as plt

# 1. Load CSV
df = pd.read_csv("sales_data.csv")
print("Data preview:")
print(df.head())

# 2. Group By and Sum
sales_by_product = df.groupby("Product")["Sales"].sum()
sales_by_region = df.groupby("Region")["Sales"].sum()

print("\nTotal Sales by Product:")
print(sales_by_product)

print("\nTotal Sales by Region:")
print(sales_by_region)

# 3. Plot Results

# Bar chart for sales by product
plt.figure(figsize=(8,5))
sales_by_product.plot(kind="bar", title="Sales by Product", color="skyblue")
plt.ylabel("Total Sales")
plt.xticks(rotation=45)
plt.tight_layout()
plt.show()

# Bar chart for sales by region
plt.figure(figsize=(8,5))
sales_by_region.plot(kind="bar", title="Sales by Region", color="coral")
plt.ylabel("Total Sales")
plt.xticks(rotation=0)
plt.tight_layout()
plt.show()
```

```
Data preview:
         Date    Product Region  Sales  Quantity
0  2025-01-01  Product A  North   1200        10
1  2025-01-02  Product B  South    950         8
2  2025-01-03  Product C   East   1430        12
3  2025-01-04  Product D   West   1780        15
4  2025-01-05  Product A  North   2200        18

Total Sales by Product:
Product
Product A    30850
Product B    19540
Product C    28530
Product D    26630
Name: Sales, dtype: int64

Total Sales by Region:
Region
East     26650
North    27320
South    25520
West     26060
Name: Sales, dtype: int64
```




0
Product A
Product B
Product C
Product D
Product


Sales by Region
25000
20000
15000
10000
5000
0
Total Sales
East
North
South
West
Region