import pandas as pd

import matplotlib.pyplot as plt

file\_path = 'retail\_sales\_dataset.csv'

df = pd.read\_csv(file\_path)

print("Dataset Columns:", df.columns)

# Instead of 'Region', use 'Product Category'

sales\_by\_category = df.groupby('Product Category')['Total Amount'].sum().reset\_index()

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

print(sales\_by\_category)

# Bar Plot

plt.figure(figsize=(8,5))

plt.bar(sales\_by\_category['Product Category'], sales\_by\_category['Total Amount'], color='skyblue')

plt.title("Total Sales by Product Category")

plt.ylabel("Sales Amount")

plt.xlabel("Product Category")

plt.show()

# Top Performing Category

top\_category = sales\_by\_category.loc[sales\_by\_category['Total Amount'].idxmax()]

print("\nTop Performing Category:", top\_category['Product Category'],

"with sales =", top\_category['Total Amount'])

# Group by Gender + Product Category

gender\_category\_sales = df.groupby(['Gender', 'Product Category'])['Total Amount'].sum().unstack(fill\_value=0)

print("\nSales by Gender and Product Category:")

print(gender\_category\_sales)

# Stacked Bar Plot

gender\_category\_sales.plot(kind='bar', stacked=True, figsize=(8,5))

plt.title("Stacked Sales by Gender and Product Category")

plt.ylabel("Sales Amount")

plt.xlabel("Gender")

plt.show()

# Grouped Bar Plot

gender\_category\_sales.plot(kind='bar', stacked=False, figsize=(8,5))

plt.title("Grouped Sales by Gender and Product Category")

plt.ylabel("Sales Amount")

plt.xlabel("Gender")

plt.show()

Output:-





