sales.py - C:/Users/Muskan/AppData/Local/Programs/Python/Python313/sales.py (3.13.1)

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```
# Task 7 DA - Basic Sales Summary using SQLite and Python
# Save this file as task7_sales_summary.py and run it in Python IDLE

import sqlite3
import pandas as pd
import matplotlib.pyplot as plt

# Step 1: Connect to SQLite database (will create if it doesn't exist)
conn = sqlite3.connect("sales_data.db")
cursor = conn.cursor()

# Step 2: Create sales table (if not exists)
cursor.execute("""
CREATE TABLE IF NOT EXISTS sales (
    product TEXT,
    quantity INTEGER,
    price REAL
)
""")

# Step 3: Insert sample data (only if table is empty)
cursor.execute("SELECT COUNT(*) FROM sales")
if cursor.fetchone()[0] == 0:
    sample_data = [
        ("Laptop", 5, 800),
        ("Phone", 10, 500),
        ("Tablet", 7, 300),
        ("Headphones", 15, 50),
        ("Monitor", 6, 200),
        ("Keyboard", 12, 40),
        ("Mouse", 20, 25)
    ]
    cursor.executemany("INSERT INTO sales VALUES (?, ?, ?)", sample_data)
    conn.commit()

# Step 4: Run SQL query
query = """
SELECT
    product,
    SUM(quantity) AS total_qty,
    SUM(quantity * price) AS revenue
FROM sales
GROUP BY product;
"""

df = pd.read_sql_query(query, conn)
```

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# Step 5: Print results
print("📊 Sales Summary by Product")
print(df)

# Step 6: Plot simple bar chart (Revenue by Product)
plt.figure(figsize=(8, 5))
plt.bar(df["product"], df["revenue"])
plt.xlabel("Product")
plt.ylabel("Revenue")
plt.title("Revenue by Product")
plt.xticks(rotation=45)
plt.show()

# Step 7: Close connection
conn.close()
```

IDLE Shell 3.13.1 - C:/Users/Muskan/AppData/Local/Programs/Python/Python313/slaes python.py (3.13.1)

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```
Python 3.13.1 (tags/v3.13.1:0671451, Dec  3 2024, 19:06:28) [MSC v.1942 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
========== RESTART: C:/Users/Muskan/AppData/Local/Programs/Python/Python313/sales.py ==========
Sales Summary by Product
      product  total_qty  revenue
0  Headphones         15    750.0
1    Keyboard         12    480.0
2      Laptop          5   4000.0
3     Monitor          6   1200.0
4       Mouse         20    500.0
5       Phone         10   5000.0
6      Tablet          7   2100.0
```