**TASK 7**

Get Basic Sales Summary from a Tiny SQLite Database using Python

**Objective**: Use SQL inside Python to pull simple sales info (like total quantity sold, total revenue), and

display it using basic print statements and a simple bar chart.

**Tools**:

Python (with sqlite3, pandas, matplotlib)

SQLite (built into Python — no setup!)

Jupyter Notebook or a .py file

**Dataset**:

Create a small SQLite database file (sales\_data.db) with just one sales table

**Deliverables**:

Python script (or notebook) that:

Connects to sales\_data.db

Runs 1–2 SQL queries

Displays output using print and basic matplotlib bar chart

**Hints / Mini Guide:**

**Load SQLite database**: import sqlite3 conn = sqlite3.connect("sales\_data.db")

**Run basic SQL**: query = "SELECT product, SUM(quantity) AS total\_qty, SUM(quantity \* price) AS

revenue FROM sales GROUP BY product"

**Load into pandas**: import pandas as pd df = pd.read\_sql\_query(query, conn)

**Print results**: print(df)

**Plot simple bar chart**: df.plot(kind='bar', x='product', y='revenue')

**Save chart if needed**: plt.savefig("sales\_chart.png")

**Load SQLite database**: import sqlite3 conn = sqlite3.connect("sales\_data.db")

**import** sqlite3

conn **=** sqlite3**.**connect("sales\_data.db")

cursor **=** conn**.**cursor()

cursor**.**execute("""

CREATE TABLE IF NOT EXISTS sales (

id INTEGER PRIMARY KEY AUTOINCREMENT,

product TEXT,

quantity INTEGER,

price REAL

);

""")

conn**.**commit()

print("Table created successfully")

**Run basic SQL**: query = "SELECT product, SUM(quantity) AS total\_qty, SUM(quantity \* price) AS

query **=** """

SELECT

product,

SUM(quantity) AS total\_qty,

SUM(quantity \* price) AS revenue

FROM sales

GROUP BY product

ORDER BY revenue DESC

"""

**Load into pandas**: import pandas as pd df = pd.read\_sql\_query(query, conn)

**import** pandas **as** pd

df **=** pd**.**read\_sql\_query(query, conn)

**Print results**: print(df)

print(df)

**Plot simple bar chart**: df.plot(kind='bar', x='product', y='revenue')

**import** matplotlib.pyplot **as** plt

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**.**tight\_layout()

**Save chart if needed**: plt.savefig("sales\_chart.png")

plt**.**savefig("sales\_chart.png")

plt**.**show()





