

Get Basic Sales Summary from a Tiny SQLite Database using Python

Step 1: SQLite database in Colab

```
import sqlite3

# Connect to SQLite (file will be saved in Colab VM temporarily)
conn = sqlite3.connect("sales_data.db")
cursor = conn.cursor()

# Create table
cursor.execute('''
CREATE TABLE IF NOT EXISTS sales (
    id INTEGER PRIMARY KEY,
    product TEXT,
    quantity INTEGER,
    price REAL
)
''')

# Insert sample data
cursor.execute("DELETE FROM sales") # clear old data if rerunning
sample_data = [
    ('Laptop', 5, 700),
    ('Phone', 10, 300),
    ('Tablet', 7, 250),
    ('Laptop', 3, 700),
    ('Phone', 5, 300)
]
cursor.executemany("INSERT INTO sales (product, quantity, price) VALUES (?, ?, ?)", sample_data)
conn.commit()
```

Step 2: Query the data with pandas

```
import pandas as pd

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)
conn.close() # close connection

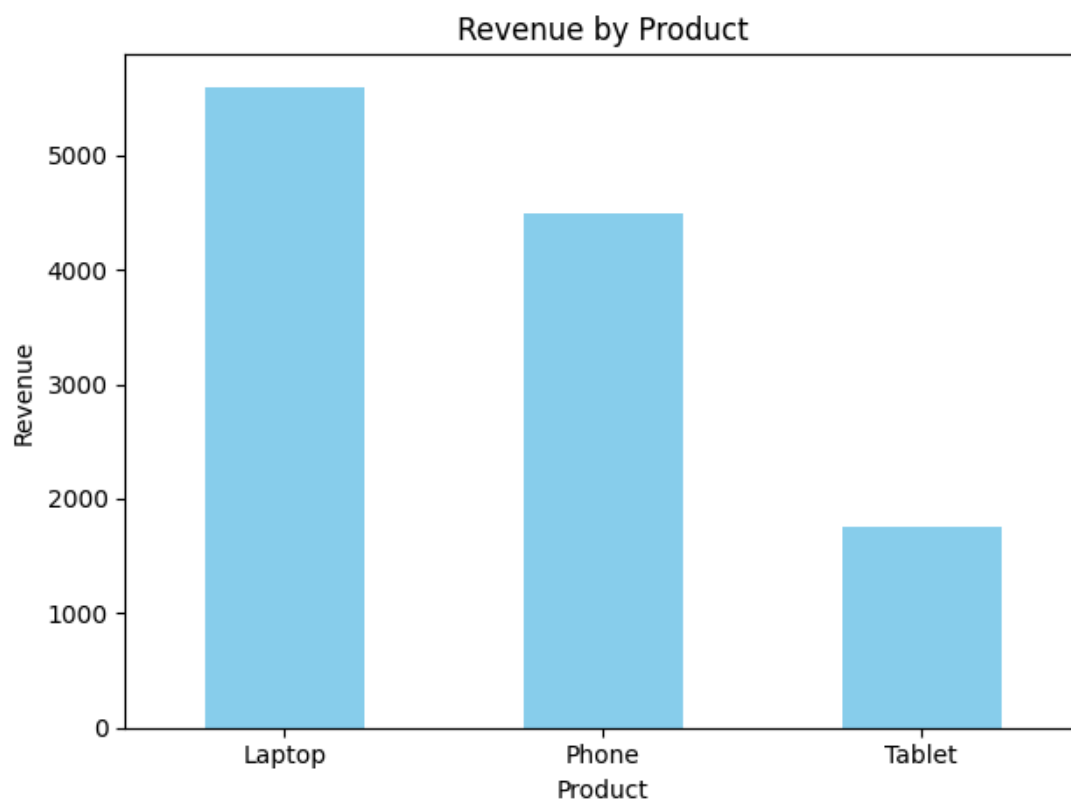
print(df)
```

	product	total_qty	revenue
0	Laptop	8	5600.0
1	Phone	15	4500.0
2	Tablet	7	1750.0

Step 3: Plot the bar chart

```
import matplotlib.pyplot as plt

df.plot(kind='bar', x='product', y='revenue', color='skyblue', legend=False)
plt.title("Revenue by Product")
plt.xlabel("Product")
plt.ylabel("Revenue")
plt.xticks(rotation=0)
plt.tight_layout()
plt.show()
```



4.chart image

```
plt.savefig("/content/sales_chart.png") # Saves in Colab VM
```

<Figure size 640x480 with 0 Axes>

