TASK 7: Basic Sales Summary Report

Objective: Use SQL inside Python to pull simple sales info (like total quantity sold, total revenue), and display it using print statements and a bar chart.

Tools Used:

Python (sqlite3, pandas, matplotlib), SQLite, Jupyter Notebook or .py file

Process Overview:

1. Created SQLite database (sales_data.db) and connected using sqlite3.
2. Created a 'sales' table with product, quantity, and price columns.
3. Inserted sample sales data for various products.
4. Executed SQL query to compute total quantity and total revenue per product.
5. Loaded results into pandas DataFrame and printed output.
6. Created a bar chart visualizing total revenue by product using matplotlib.
7. Saved the chart and generated this detailed PDF report.

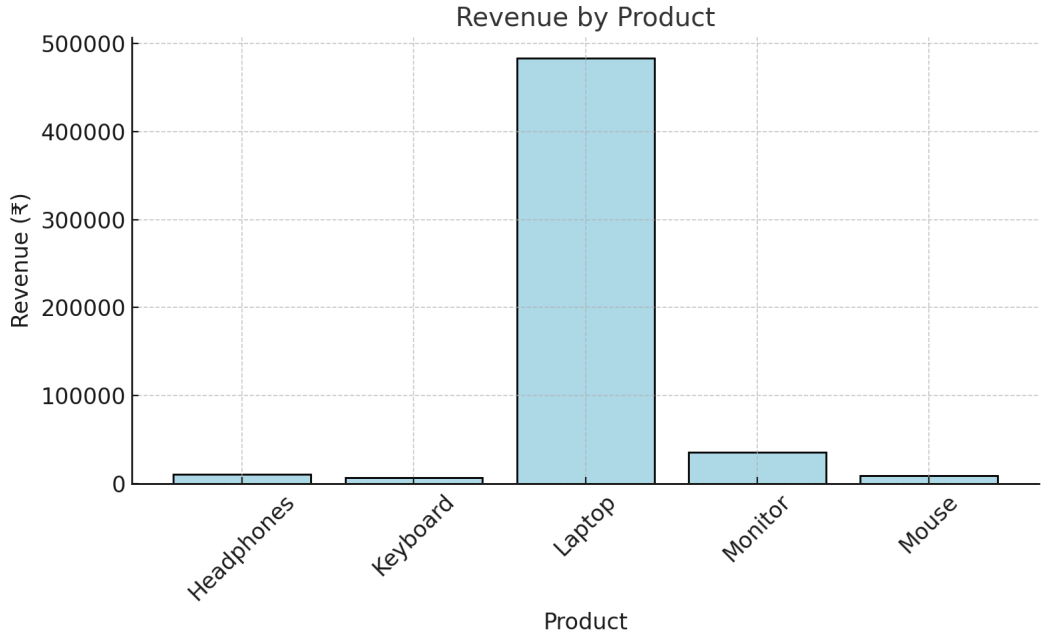
SQL Query Executed:

```
SELECT
product,
SUM(quantity) AS total_qty,
SUM(quantity * price) AS revenue
FROM sales
GROUP BY product
```

Sales Summary Output:

product	total_qty	revenue
Headphones	7	10500.0
Keyboard	6	7200.0
Laptop	8	483000.0
Monitor	4	36000.0
Mouse	18	9400.0

Revenue by Product (Bar Chart):



Conclusion:
The script successfully connects to an SQLite database, executes SQL queries to compute total sales metrics, and visualizes the results in a bar chart. This demonstrates basic data handling, querying, and visualization within Python for small-scale sales data analysis.