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analyze_sales.py X +
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import sqlite3
import pandas as pd
import matplotlib.pyplot as plt

# Connect to the database
conn = sqlite3.connect("sales_data.db")

# SQL query
query = """
SELECT
    product,
    SUM(quantity) AS total_qty,
    SUM(quantity * price) AS revenue
FROM sales
GROUP BY product
ORDER BY revenue DESC;
"""

# Load results into pandas
df = pd.read_sql_query(query, conn)

# Print results
print("Sales summary per product:")
print(df.to_string(index=False))

# Totals
print("\nTOTAL quantity sold:", df['total_qty'].sum())
print("TOTAL revenue:", df['revenue'].sum())

# Plot chart
df.plot(kind="bar", x="product", y="revenue", legend=False)
plt.xlabel("Product")
plt.ylabel("Revenue")
plt.title("Revenue by Product")
plt.tight_layout()
plt.savefig("sales_chart.png") # saves chart as PNG
plt.show()

conn.close()
```



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```
import sqlite3
data = [
    ("Widget A", 10, 2.5, "2025-09-01"),
    ("Widget B", 5, 4.0, "2025-09-01"),
    ("Widget A", 3, 2.5, "2025-09-02"),
    ("Widget C", 8, 1.75, "2025-09-02"),
    ("Widget B", 7, 4.0, "2025-09-03"),
    ("Widget A", 2, 2.5, "2025-09-03"),
]
conn = sqlite3.connect("sales_data.db")
cur = conn.cursor()
cur.execute("""
CREATE TABLE IF NOT EXISTS sales (
    id INTEGER PRIMARY KEY AUTOINCREMENT,
    product TEXT NOT NULL,
    quantity INTEGER NOT NULL,
    price REAL NOT NULL,
    sale_date TEXT
);
""")
cur.executemany("INSERT INTO sales (product, quantity, price, sale_date) VALUES (?, ?, ?, ?);", data)
conn.commit()
conn.close()
print("👍 Created sales_data.db and inserted sample rows.")
```



Sales summary per product:

product	total_qty	revenue
Widget B	12	48.0
Widget A	15	37.5
Widget C	8	14.0

TOTAL quantity sold: 35

TOTAL revenue: 99.5

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