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In [1]: import sqlite3

# Create a SQLite database
conn = sqlite3.connect("sales_data.db")
cursor = conn.cursor()

# Drop the table if it exists
cursor.execute("DROP TABLE IF EXISTS sales")

# Create the table
cursor.execute("""
CREATE TABLE sales (
    id INTEGER PRIMARY KEY AUTOINCREMENT,
    date TEXT,
    product TEXT,
    quantity INTEGER,
    price REAL
)
""")

# Insert some data
sales_data = [
    ("2025-06-01", "Apple", 10, 1.2),
    ("2025-06-01", "Banana", 5, 0.5),
    ("2025-06-02", "Apple", 7, 1.2),
    ("2025-06-02", "Orange", 8, 0.8),
    ("2025-06-03", "Banana", 10, 0.5),
    ("2025-06-03", "Apple", 6, 1.2),
    ("2025-06-04", "Orange", 12, 0.8),
    ("2025-06-04", "Apple", 4, 1.2)
]

cursor.executemany("INSERT INTO sales (date, product, quantity, price) VALUES (?, ?, ?, ?)", sales_data)

conn.commit()
conn.close()

print("✅ Database created as 'sales_data.db'")
```

✅ Database created as 'sales\_data.db'

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In [ ]: import pandas as pd
import sqlite3

conn = sqlite3.connect("sales_data.db")

# Read sales table
df = pd.read_sql_query("SELECT * FROM sales", conn)
conn.close()
df
```

Out[ ]:		id	date	product	quantity	price
	0	1	2025-06-01	Apple	10	1.2
	1	2	2025-06-01	Banana	5	0.5
	2	3	2025-06-02	Apple	7	1.2
	3	4	2025-06-02	Orange	8	0.8
	4	5	2025-06-03	Banana	10	0.5
	5	6	2025-06-03	Apple	6	1.2
	6	7	2025-06-04	Orange	12	0.8
	7	8	2025-06-04	Apple	4	1.2

```
In [3]: # Total quantity sold
total_qty = df['quantity'].sum()

# Total revenue = quantity * price (row-wise)
df['revenue'] = df['quantity'] * df['price']
total_revenue = df['revenue'].sum()

print(f"📦 Total Quantity Sold: {total_qty}")
print(f"💰 Total Revenue: ₹{total_revenue:.2f}")
```

📦 Total Quantity Sold: 62  
 💰 Total Revenue: ₹55.90

```
In [4]: # Group by product for quantity and revenue
product_summary = df.groupby('product').agg({
    'quantity': 'sum',
    'revenue': 'sum'
}).reset_index()

product_summary
```

Out[4]:		product	quantity	revenue
	0	Apple	27	32.4
	1	Banana	15	7.5
	2	Orange	20	16.0

```
In [6]: import matplotlib.pyplot as plt

# Bar chart: Quantity sold per product
plt.figure(figsize=(8, 5))
plt.bar(product_summary['product'], product_summary['quantity'], color='skyblue')
plt.title('Quantity Sold per Product')
plt.xlabel('Product')
plt.ylabel('Quantity Sold')
plt.grid(axis='y', linestyle='--', alpha=0.7)
plt.tight_layout()
plt.show()
```

Quantity Sold per Product

