

# Basic Sales Summary from a Tiny SQLite Database using Python

This shows how I linked Python to a SQLite database to build a basic sales table, execute SQL queries, and produce simple data summaries. I utilized pandas to import SQL results and represented product-based revenue with a matplotlib bar chart. This enabled me to work on SQL within Python, manage databases, and perform fundamental data visualization.

PYTHON CODE:

```
import sqlite3  
  
import pandas as pd  
  
import matplotlib.pyplot as plt  
  
  
#create/connect to DB and table  
  
conn = sqlite3.connect("sales_data.db")  
  
cursor = conn.cursor()  
  
  
cursor.execute("""  
CREATE TABLE IF NOT EXISTS sales (  
    product TEXT,  
    quantity INTEGER,  
    price REAL  
)  
""")
```

```
#insert sample rows

cursor.executemany("""
    insert into Sales(product, quantity, price)values(?, ?, ?)""",
    [("Mobile",30,15000),
     ("Laptop",9,55000),
     ("Earphones",40,800),
     ("Mobile",10,15000),
     ("Laptop",5,55000),
     ("charger", 25,500),
     ("Earphones",30,800),
     ("charger", 20,500)
    ])
```

```
conn.commit()
```

```
#run sql and load into pandas

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)
```

```
print(df)
```

```
# 4. plot revenue by product
```

```
ax = df.plot(kind='bar', x='product', y='revenue', legend=True)
```

```
ax.set_ylabel("Revenue")
```

```
ax.set_title("Revenue by Product")
```

```
plt.tight_layout()
```

```
plt.savefig("sales_chart.png")
```

```
plt.show()
```

```
# 5. close the connection
```

```
conn.close()
```

The screenshot shows a Jupyter Notebook environment with several open files in the left sidebar, including EDA\_Titanic.ipynb, sales.py, and Internship.ipynb. The sales.py file is currently active, displaying Python code for inserting data into a Sales table. A bar chart titled 'Revenue by Product' is displayed in the center, showing revenue for four categories: Earphones, Laptop, Mobile, and charger. The x-axis is labeled 'product' and the y-axis is labeled 'Revenue'. The data is summarized in the following table:

product	total_qty	revenue
Earphones	350	280000.0
Laptop	70	3850000.0
Mobile	200	3000000.0
charger	225	112500.0

The bottom right corner of the chart area shows a tooltip: '(x, y) = (, 2.814e+06)'. The status bar at the bottom of the screen shows various system information, including the date and time (24-11-2025), language (ENG), and battery level (27%).