SQL INTO PYTHON

```
import sqlite3
import pandas as pd
import matplotlib.pyplot as plt

print("--- Starting Database Setup ---")
```

```
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```

```
conn = sqlite3.connect('sales_data.db')
cursor = conn.cursor()

cursor.execute('''
    CREATE TABLE IF NOT EXISTS sales (
        ID INTEGER PRIMARY KEY AUTOINCREMENT,
        Product TEXT NOT NULL,
        Country TEXT NOT NULL,
        Quantity INTEGER NOT NULL,
        Price REAL NOT NULL
    )
''')
sample_data = [
    ('Laptop',"africa", 27, 4200.00),
    ('Mouse',"america", 5, 25.50),
    ('Keyboard',"asia", 3, 75.00),
    ('Monitor',"UK", 7, 120.00),
    ('Laptop',"Iceland", 1, 1200.00),
]
cursor.executemany("INSERT INTO sales (Product, Country, Quantity,
Price) VALUES (?, ?, ?, ?)", sample_data)
conn.commit()
print("Sample data inserted successfully.")
```

```
Sample data inserted successfully.
```

```
query = """
    SELECT
        Product,
        SUM(Quantity) AS total_qty,
        SUM(Quantity * Price) AS total_revenue
    FROM
        sales
    GROUP BY
        Product
    ORDER BY
        total_revenue DESC
"""

df = pd.read_sql_query(query, conn)
```

```
print("\n--- Basic Sales Summary ---")
print(df)
```

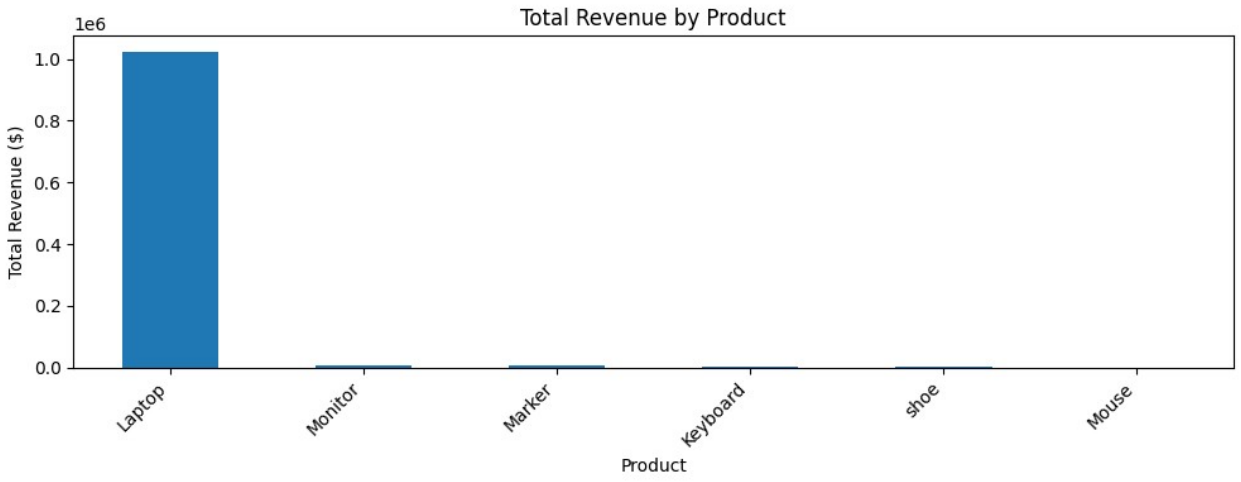
```
--- Basic Sales Summary ---
    Product  total_qty  total_revenue
0    Laptop        246      1024200.0
1   Monitor         63         7560.0
2    Marker          6         7200.0
3  Keyboard         27         2025.0
4      shoe         30          765.0
5     Mouse         15          382.5
```

```
total_overall_revenue = df['total_revenue'].sum()
print(f"\nOverall Total Revenue: ${total_overall_revenue:,.2f}")
```

```
Overall Total Revenue: $1,042,132.50
```

BAR CHART

```
plt.figure(figsize=(10, 4))
df.plot(kind='bar', x='Product', y='total_revenue', legend=False,
        title='Total Revenue by Product', ax=plt.gca())
plt.xlabel('Product')
plt.ylabel('Total Revenue ($)')
plt.xticks(rotation=45, ha='right')
plt.tight_layout()
plt.show()
```



SAVING CHART

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

```
<Figure size 640x480 with 0 Axes>
```