```
import sqlite3
import pandas as pd
import matplotlib.pyplot as plt
print( "imorted successfully")
```

```
imorted successfully
```

```
conn = sqlite3.connect("sales_data.db")
cursor = conn.cursor()
print ("connection successfull")
```

```
connection successfull
```

```
cursor.execute("""
CREATE TABLE IF NOT EXISTS sales (
    sale_id INTEGER PRIMARY KEY AUTOINCREMENT,
    product TEXT NOT NULL,
    quantity INTEGER NOT NULL,
    price REAL NOT NULL
);
""")
conn.commit()
print("database, table created")
```

```
database, table created
```

```
sample_data = [
    ("Product A", 10, 50),
    ("Product B", 15, 40),
    ("Product C", 20, 30),
    ("Product A", 5, 50),
    ("Product B", 7, 40)
]

cursor.executemany("INSERT INTO sales (product, quantity, price)
VALUES (?, ?, ?)", sample_data)
conn.commit()
print("data inserted successfully, commit")
```

```
data inserted successfully, commit
```

```
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("Sales Summary:")
print(df)
```

```
Sales Summary:
     product  total_qty  revenue
0  Product A         15    750.0
1  Product B         22    880.0
2  Product C         20    600.0
```

```
plt.figure(figsize=(6,4))
colors = ['violet', 'Green', 'skyblue']
plt.bar(df['product'], df['revenue'], color=colors)
plt.xlabel("Product", fontsize=18, fontfamily="Arial", weight="bold")
plt.ylabel("Revenue", fontsize=18, fontfamily="Arial", weight="bold")
plt.title("Revenue by Product", fontsize=25, fontfamily="Arial",
weight="bold")
plt.tight_layout()
plt.show()
```