```python
In [2]: import sqlite3
```

```python
In [4]: conn = sqlite3.connect('sales_data.db')
        cursor = conn.cursor()
```

```python
In [6]: cursor.execute('''
            CREATE TABLE IF NOT EXISTS sales (
                id INTEGER PRIMARY KEY AUTOINCREMENT,
                product TEXT,
                quantity INTEGER,
                price REAL
            )
        ''')
```

```
Out[6]: <sqlite3.Cursor at 0x129acb916c0>
```

```python
In [8]: sample_data = [
            ('Product A', 10, 2.5),
            ('Product B', 5, 5.0),
            ('Product A', 8, 2.5),
            ('Product C', 3, 10.0),
            ('Product B', 7, 5.0),
        ]
```

```python
In [10]: cursor.executemany('INSERT INTO sales (product, quantity, price) VALUES (?, ?, ?)', sample_data)
         conn.commit()
         conn.close()
```

```python
In [12]: import sqlite3
```

```python
In [14]: import pandas as pd
```

```python
In [16]: import matplotlib.pyplot as plt
```

```python
In [18]: conn = sqlite3.connect('sales_data.db')
```

```python
In [20]: query = '''
         SELECT
             product,
             SUM(quantity) AS total_qty,
             SUM(quantity * price) AS revenue
         FROM sales
         GROUP BY product
         '''
```
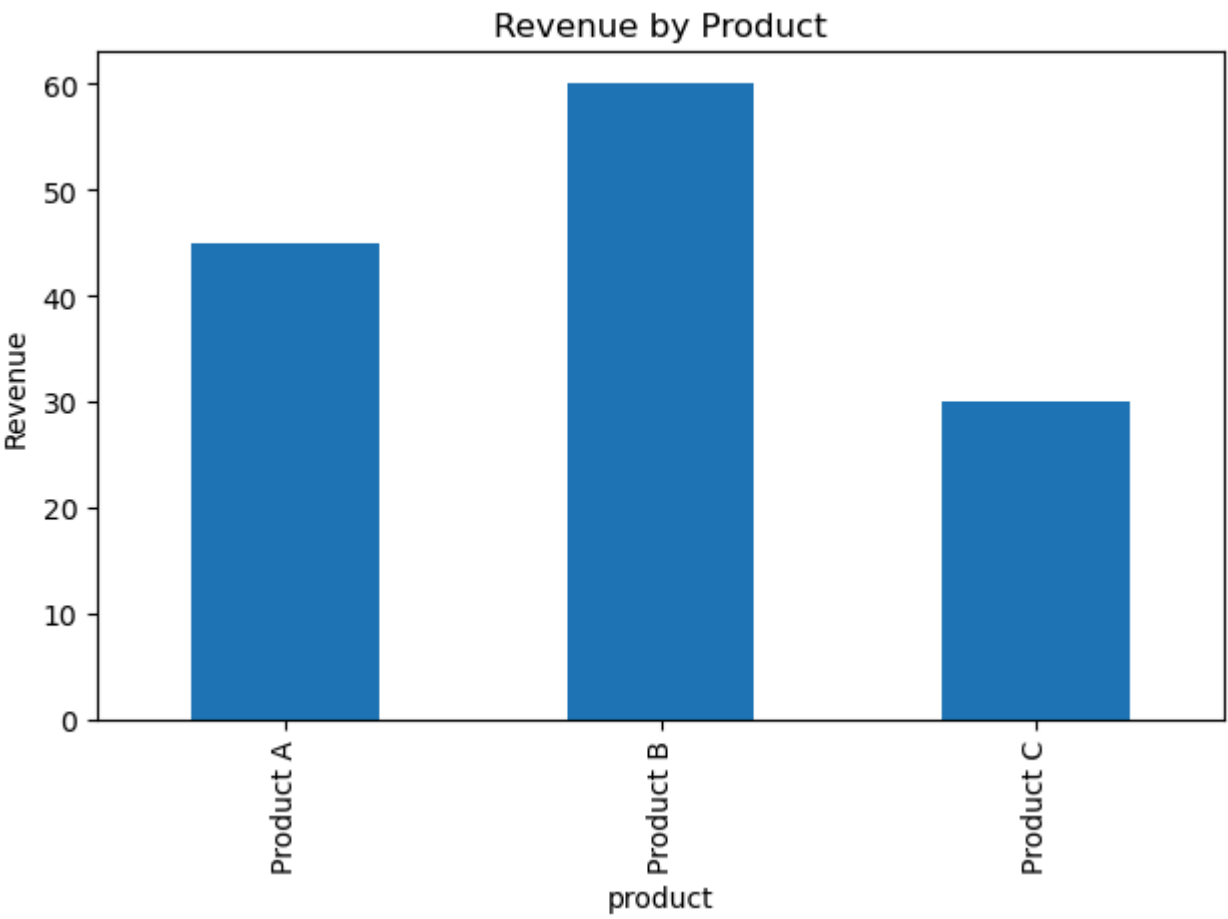
```python
In [22]: df = pd.read_sql_query(query, conn)
```

```python
In [24]: print(df)
```

```
     product  total_qty  revenue
0  Product A         18     45.0
1  Product B         12     60.0
2  Product C          3     30.0
```

```python
In [26]: df.plot(kind='bar', x='product', y='revenue', title='Revenue by Product', legend=False)
         plt.ylabel("Revenue")
         plt.tight_layout()
```


Bar Chart Explanation: Revenue by Product

The bar chart visualizes the total revenue generated by each product:

- *Product B* has the highest revenue, around $60.
- *Product A* follows with approximately $45 in revenue.
- *Product C* has the lowest revenue, about $30.

This chart helps quickly compare the revenue performance of each product and identify which ones are generating more income.

```python
In [28]: plt.savefig("sales_chart.png")
         plt.show()
```

<Figure size 640x480 with 0 Axes>

```python
In [34]: conn.close()
```