

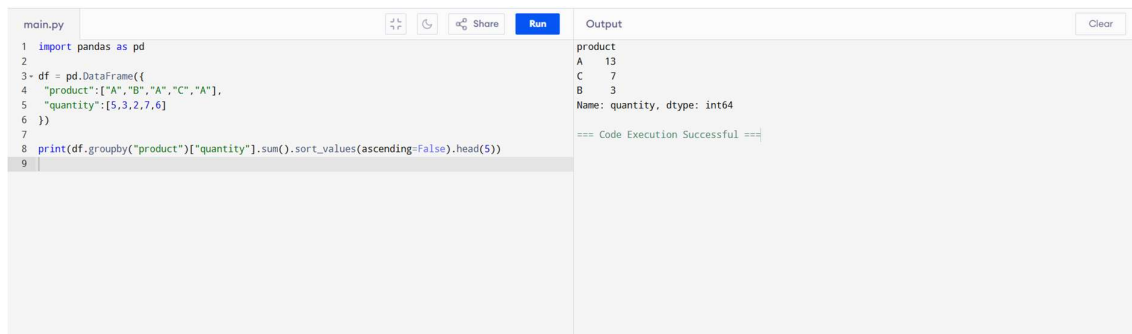
Scenario: You are a data scientist working for a company that sells products online. You have been tasked with analyzing the sales data for the past month. The data is stored in a Pandas data frame.

Question: How would you find the top 5 products that have been sold the most in the past month?

AIM: To group product data, calculate the total quantity sold for each product, sort the results in descending order, and display the top-selling products.

PROCEDURE:

1. Create a pandas DataFrame containing product names and their quantities sold.
2. Group the DataFrame by product and calculate the sum of quantities for each product.
3. Sort the total quantities in descending order to rank products by sales volume.
4. Display the top 5 products with the highest total quantities.



The screenshot shows a Jupyter Notebook interface with a code editor on the left and an output area on the right. The code editor contains a Python script that creates a DataFrame, groups it by product, sorts the results by total quantity in descending order, and displays the top 5 products. The output area shows the resulting DataFrame and a success message.

```
main.py 1 import pandas as pd
2
3 df = pd.DataFrame({
4     "product": ["A", "B", "A", "C", "A"],
5     "quantity": [5, 3, 2, 7, 6]
6 })
7
8 print(df.groupby("product")["quantity"].sum().sort_values(ascending=False).head(5))
9
```

Output

```
product
A    13
C     7
B     3
Name: quantity, dtype: int64

=== Code Execution Successful ===
```