8. 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?

CODE:

import pandas as pd

file\_path = r"C:\Users\Shashankbheemavarapu\Downloads\sales\_data.csv"

sales\_data = pd.read\_csv(file\_path)

top\_products = (

sales\_data.groupby("Product\_Name")["Quantity\_Sold"]

.sum()

.sort\_values(ascending=False)

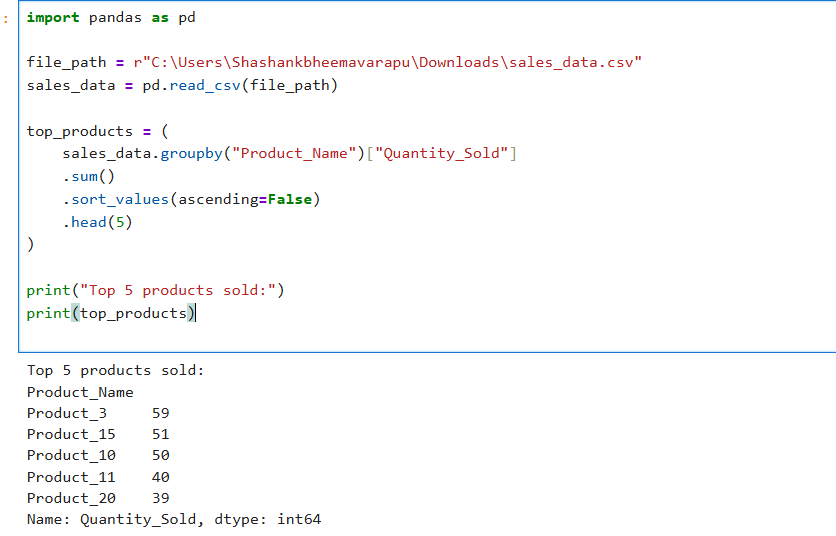
.head(5)

)

print("Top 5 products sold:")

print(top\_products)

OUTPUT:



DATASET:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Product\_ID | Product\_Name | Quantity\_Sold | Sale\_Date | |
| P20 | Product\_18 | 8 | ######## |  |
| P20 | Product\_4 | 10 | ######## |  |
| P18 | Product\_11 | 10 | ######## |  |
| P1 | Product\_20 | 4 | ######## |  |
| P17 | Product\_20 | 10 | ######## |  |
| P11 | Product\_6 | 9 | ######## |  |
| P18 | Product\_7 | 8 | ######## |  |
| P10 | Product\_5 | 1 | ######## |  |
| P12 | Product\_5 | 5 | ######## |  |
| P11 | Product\_4 | 6 | ######## |  |
| P6 | Product\_15 | 9 | ######## |  |
| P8 | Product\_17 | 4 | ######## |  |
| P15 | Product\_10 | 5 | ######## |  |
| P10 | Product\_10 | 8 | ######## |  |
| P10 | Product\_9 | 2 | ######## |  |
| P3 | Product\_11 | 9 | ######## |  |
| P12 | Product\_12 | 3 | ######## |  |
| P3 | Product\_4 | 5 | ######## |  |
| P12 | Product\_11 | 3 | ######## |  |
| P16 | Product\_2 | 5 | ######## |  |
| P20 | Product\_15 | 10 | ######## |  |
| P12 | Product\_20 | 4 | ######## |  |
| P16 | Product\_15 | 5 | ######## |  |
| P12 | Product\_4 | 1 | ######## |  |
| P18 | Product\_2 | 2 | ######## |  |
| P4 | Product\_9 | 4 | ######## |  |
| P6 | Product\_10 | 9 | ######## |  |
| P19 | Product\_12 | 8 | ######## |  |
| P1 | Product\_10 | 5 | ######## |  |
| P15 | Product\_6 | 10 | ######## |  |
| P19 | Product\_4 | 5 | ######## |  |
| P13 | Product\_16 | 4 | ######## |  |
| P4 | Product\_7 | 10 | ######## |  |
| P9 | Product\_8 | 9 | ######## |  |
| P1 | Product\_6 | 3 | ######## |  |
| P3 | Product\_15 | 9 | ######## |  |
| P4 | Product\_9 | 3 | ######## |  |
| P2 | Product\_2 | 7 | ######## |  |
| P13 | Product\_9 | 4 | ######## |  |
| P3 | Product\_4 | 3 | ######## |  |
| P2 | Product\_3 | 6 | ######## |  |
| P13 | Product\_5 | 3 | ######## |  |
| P1 | Product\_14 | 10 | ######## |  |
| P10 | Product\_16 | 5 | ######## |  |
| P17 | Product\_17 | 6 | ######## |  |
| P6 | Product\_5 | 1 | ######## |  |
| P8 | Product\_12 | 7 | ######## |  |
| P17 | Product\_9 | 4 | ######## |  |
| P19 | Product\_12 | 2 | ######## |  |
| P7 | Product\_17 | 6 | ######## |  |
| P14 | Product\_3 | 9 | ######## |  |
| P1 | Product\_15 | 10 | ######## |  |
| P11 | Product\_19 | 7 | ######## |  |
| P10 | Product\_10 | 10 | ######## |  |
| P13 | Product\_3 | 3 | ######## |  |
| P5 | Product\_3 | 10 | ######## |  |
| P19 | Product\_9 | 1 | ######## |  |
| P12 | Product\_6 | 9 | ######## |  |
| P19 | Product\_15 | 8 | ######## |  |
| P9 | Product\_3 | 1 | ######## |  |
| P19 | Product\_1 | 8 | ######## |  |
| P7 | Product\_14 | 1 | ######## |  |
| P8 | Product\_19 | 5 | ######## |  |
| P14 | Product\_14 | 7 | ######## |  |
| P4 | Product\_10 | 3 | ######## |  |
| P11 | Product\_11 | 4 | ######## |  |
| P11 | Product\_1 | 10 | ######## |  |
| P2 | Product\_13 | 6 | ######## |  |
| P20 | Product\_12 | 4 | ######## |  |
| P20 | Product\_9 | 9 | ######## |  |
| P8 | Product\_3 | 4 | ######## |  |
| P3 | Product\_3 | 7 | ######## |  |
| P7 | Product\_20 | 9 | ######## |  |
| P6 | Product\_11 | 3 | ######## |  |
| P8 | Product\_10 | 9 | ######## |  |
| P5 | Product\_8 | 4 | ######## |  |
| P19 | Product\_16 | 8 | ######## |  |
| P8 | Product\_5 | 1 | ######## |  |
| P13 | Product\_3 | 10 | ######## |  |
| P13 | Product\_18 | 1 | ######## |  |
| P15 | Product\_3 | 6 | ######## |  |
| P4 | Product\_20 | 4 | ######## |  |
| P7 | Product\_3 | 3 | ######## |  |
| P13 | Product\_10 | 1 | ######## |  |
| P1 | Product\_17 | 2 | ######## |  |
| P5 | Product\_20 | 4 | ######## |  |
| P2 | Product\_19 | 1 | ######## |  |
| P5 | Product\_20 | 2 | ######## |  |
| P5 | Product\_11 | 7 | ######## |  |
| P18 | Product\_11 | 4 | ######## |  |
| P8 | Product\_8 | 2 | ######## |  |
| P13 | Product\_16 | 9 | ######## |  |
| P6 | Product\_4 | 4 | ######## |  |
| P10 | Product\_6 | 6 | ######## |  |
| P5 | Product\_8 | 9 | ######## |  |
| P14 | Product\_20 | 2 | ######## |  |
| P17 | Product\_6 | 2 | ######## |  |
| P16 | Product\_18 | 2 | ######## |  |
| P9 | Product\_7 | 7 | ######## |  |
| P17 | Product\_19 | 9 | ######## |  |