```
import pandas as pd

df=pd.read_excel(r'c:\Users\ASUS\Downloads\
Store_Sales_Dataset.xlsx.xlsx')

df
```

```
          Date Invoice ID  Customer Name Product Category
Product Name  \
0   2025-10-01     INV001     Raj Sharma      Electronics  Bluetooth
Speaker
1   2025-10-01     INV002    Priya Patel        Groceries         Rice
(5kg)
2   2025-10-02     INV003    Rohit Verma         Clothing
T-Shirt
3   2025-10-03     INV004   Anjali Mehta        Cosmetics         Face
Cream
4   2025-10-03     INV005     Aman Yadav      Electronics
Headphones
5   2025-10-04     INV006   Kavita Joshi        Groceries   Cooking
Oil (1L)
6   2025-10-05     INV007     Pooja Nair         Clothing
Jeans
7   2025-10-06     INV008    Arjun Singh      Electronics        Smart
Watch
8   2025-10-07     INV009    Meena Desai        Cosmetics
Shampoo
9   2025-10-08     INV010   Deepak Patel        Groceries        Sugar
(2kg)
10  2025-10-09     INV011     Sneha Iyer         Clothing
Jacket
11  2025-10-10     INV012     Ravi Kumar      Electronics
Power Bank
12  2025-10-11     INV013   Divya Thakur        Cosmetics
Perfume
13  2025-10-12     INV014    Nitin Joshi        Groceries       Wheat
(10kg)
14  2025-10-13     INV015  Riya Malhotra         Clothing
Dress
15  2025-10-13     INV016   Arpit Bansal      Electronics     Mobile
Charger
16  2025-10-14     INV017    Tanu Sharma        Groceries         Tea
(500g)
17  2025-10-15     INV018   Ramesh Yadav         Clothing
Hoodie
18  2025-10-16     INV019   Kavya Kapoor      Electronics
LED Bulb
19  2025-10-17     INV020   Pankaj Sinha        Cosmetics        Body
Lotion
20  2025-10-18     INV021    Jyoti Singh        Groceries
```

```
Milk (1L)
21  2025-10-19     INV022     Rohini Das         Clothing                
Saree
22  2025-10-20     INV023    Aman Tiwari      Electronics          USB
Cable
23  2025-10-21     INV024     Neha Sethi        Cosmetics                
Lipstick
24  2025-10-22     INV025   Shubham Jain        Groceries    Biscuits
(Pack)
25  2025-10-23     INV026    Mehul Patel         Clothing       Formal
Shirt
26  2025-10-24     INV027   Neeraj Gupta      Electronics    Electric
Kettle
27  2025-10-25     INV028     Rekha Rani        Groceries       Bread
(Loaf)
28  2025-10-26     INV029    Mohit Arora        Cosmetics                
Hair Oil
29  2025-10-26     INV030  Kiran Chauhan      Electronics      Mixer
Grinder

    Quantity  Unit Price (₹)  Total Amount (₹) Payment Method Store
Location  \
0          2            1200              2400            UPI
Mumbai
1          1             450               450           Cash
Delhi
2          3             350              1050           Card
Pune
3          2             600              1200            UPI
Jaipur
4          1            1500              1500           Cash
Mumbai
5          4             180               720            UPI
Delhi
6          2            1200              2400           Card
Pune
7          1            2800              2800            UPI
Jaipur
8          3             250               750           Cash
Mumbai
9          2              90               180           Card
Delhi
10         1            2500              2500            UPI
Pune
11         1            1000              1000           Cash
Jaipur
12         1             950               950            UPI
Mumbai
13         1             520               520           Cash
```

```
Delhi
14          2             1800                3600            Card
Pune
15          3              300                 900             UPI
Jaipur
16          5              200                1000            Cash
Mumbai
17          1             1600                1600            Card
Delhi
18          6              150                 900             UPI
Pune
19          2              500                1000            Cash
Jaipur
20          5               60                 300             UPI
Mumbai
21          1             2200                2200            Card
Delhi
22          4              200                 800             UPI
Pune
23          3              400                1200            Cash
Jaipur
24          6               50                 300             UPI
Mumbai
25          2             1100                2200            Card
Delhi
26          1             1800                1800             UPI
Pune
27          4               40                 160            Cash
Jaipur
28          2              250                 500            Card
Mumbai
29          1             3500                3500             UPI
Delhi

   Salesperson
0     A. Singh
1      M. Khan
2     N. Gupta
3       S. Rao
4     A. Singh
5      M. Khan
6     N. Gupta
7       S. Rao
8     A. Singh
9      M. Khan
10    N. Gupta
11      S. Rao
12    A. Singh
13     M. Khan
```

```
14    N. Gupta
15      S. Rao
16    A. Singh
17     M. Khan
18    N. Gupta
19      S. Rao
20    A. Singh
21     M. Khan
22    N. Gupta
23      S. Rao
24    A. Singh
25     M. Khan
26    N. Gupta
27      S. Rao
28    A. Singh
29     M. Khan
```

```
#1 View first few rows
print(df.head())
```

```
         Date Invoice ID Customer Name Product Category       Product
Name  \
0  2025-10-01     INV001    Raj Sharma      Electronics  Bluetooth
Speaker
1  2025-10-01     INV002   Priya Patel        Groceries         Rice
(5kg)
2  2025-10-02     INV003   Rohit Verma         Clothing            T-
Shirt
3  2025-10-03     INV004  Anjali Mehta        Cosmetics         Face
Cream
4  2025-10-03     INV005    Aman Yadav      Electronics
Headphones

   Quantity  Unit Price (₹)  Total Amount (₹) Payment Method Store
Location  \
0         2            1200              2400            UPI
Mumbai
1         1             450               450           Cash
Delhi
2         3             350              1050           Card
Pune
3         2             600              1200            UPI
Jaipur
4         1            1500              1500           Cash
Mumbai

  Salesperson
0    A. Singh
1     M. Khan
2    N. Gupta
```

```
3      S. Rao
4    A. Singh
```

```
# Basic info
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 30 entries, 0 to 29
Data columns (total 11 columns):
 #   Column            Non-Null Count  Dtype
---  ------            --------------  -----
 0   Date              30 non-null     object
 1   Invoice ID        30 non-null     object
 2   Customer Name     30 non-null     object
 3   Product Category  30 non-null     object
 4   Product Name      30 non-null     object
 5   Quantity          30 non-null     int64
 6   Unit Price (₹)    30 non-null     int64
 7   Total Amount (₹)  30 non-null     int64
 8   Payment Method    30 non-null     object
 9   Store Location    30 non-null     object
 10  Salesperson       30 non-null     object
dtypes: int64(3), object(8)
memory usage: 2.7+ KB
```

```
#2 Basic Exploration
# Total number of records
print("Total Records:", len(df))
```

```
Total Records: 30
```

```
# Total quantity sold
print("Total Quantity Sold:", df["Quantity"].sum())
```

```
Total Quantity Sold: 73
```

```
# Total revenue
print("Total Revenue (₹):", df["Total Amount (₹)"].sum())
```

```
Total Revenue (₹): 40380
```

```
# Average sale value
print("Average Sale (₹):", df["Total Amount (₹)"].mean())
```

```
Average Sale (₹): 1346.0
```

```
# Check for missing values
print(df.isnull().sum())
```

```
Date                0
Invoice ID          0
Customer Name       0
```

```
Product Category    0
Product Name        0
Quantity            0
Unit Price (₹)      0
Total Amount (₹)    0
Payment Method      0
Store Location      0
Salesperson         0
dtype: int64
```

```
#3 Filtering
# Sales by a particular salesperson
print(df[df["Salesperson"] == "A. Singh"])
```

```
          Date Invoice ID Customer Name Product Category       Product
Name  \
0   2025-10-01     INV001    Raj Sharma      Electronics  Bluetooth
Speaker
4   2025-10-03     INV005    Aman Yadav      Electronics
Headphones
8   2025-10-07     INV009   Meena Desai        Cosmetics
Shampoo
12  2025-10-11     INV013  Divya Thakur        Cosmetics
Perfume
16  2025-10-14     INV017   Tanu Sharma        Groceries         Tea
(500g)
20  2025-10-18     INV021   Jyoti Singh        Groceries          Milk
(1L)
24  2025-10-22     INV025  Shubham Jain        Groceries    Biscuits
(Pack)
28  2025-10-26     INV029   Mohit Arora        Cosmetics
Hair Oil

    Quantity  Unit Price (₹)  Total Amount (₹) Payment Method Store
Location  \
0          2            1200              2400            UPI
Mumbai
4          1            1500              1500           Cash
Mumbai
8          3             250               750           Cash
Mumbai
12         1             950               950            UPI
Mumbai
16         5             200              1000           Cash
Mumbai
20         5              60               300            UPI
Mumbai
24         6              50               300            UPI
Mumbai
28         2             250               500           Card
```

```
Mumbai

   Salesperson
0     A. Singh
4     A. Singh
8     A. Singh
12    A. Singh
16    A. Singh
20    A. Singh
24    A. Singh
28    A. Singh
```

```
# All Electronics category sales
print(df[df["Product Category"] == "Electronics"])
```

```
          Date Invoice ID  Customer Name Product Category
Product Name  \
0   2025-10-01     INV001     Raj Sharma      Electronics  Bluetooth
Speaker
4   2025-10-03     INV005     Aman Yadav      Electronics
Headphones
7   2025-10-06     INV008    Arjun Singh      Electronics        Smart
Watch
11  2025-10-10     INV012     Ravi Kumar      Electronics
Power Bank
15  2025-10-13     INV016   Arpit Bansal      Electronics     Mobile
Charger
18  2025-10-16     INV019   Kavya Kapoor      Electronics
LED Bulb
22  2025-10-20     INV023    Aman Tiwari      Electronics          USB
Cable
26  2025-10-24     INV027   Neeraj Gupta      Electronics    Electric
Kettle
29  2025-10-26     INV030  Kiran Chauhan      Electronics      Mixer
Grinder

    Quantity  Unit Price (₹)  Total Amount (₹) Payment Method Store
Location  \
0          2            1200              2400            UPI
Mumbai
4          1            1500              1500           Cash
Mumbai
7          1            2800              2800            UPI
Jaipur
11         1            1000              1000           Cash
Jaipur
15         3             300               900            UPI
Jaipur
18         6             150               900            UPI
Pune
```

```
22          4               200                800             UPI
Pune
26          1              1800               1800             UPI
Pune
29          1              3500               3500             UPI
Delhi

   Salesperson
0     A. Singh
4     A. Singh
7       S. Rao
11      S. Rao
15      S. Rao
18    N. Gupta
22    N. Gupta
26    N. Gupta
29     M. Khan
```

```python
# Sales above ₹2000
print(df[df["Total Amount (₹)"] > 2000])
```

```
          Date Invoice ID  Customer Name Product Category
Product Name  \
0   2025-10-01     INV001     Raj Sharma      Electronics  Bluetooth
Speaker
6   2025-10-05     INV007     Pooja Nair         Clothing
Jeans
7   2025-10-06     INV008    Arjun Singh      Electronics        Smart
Watch
10  2025-10-09     INV011     Sneha Iyer         Clothing
Jacket
14  2025-10-13     INV015  Riya Malhotra         Clothing
Dress
21  2025-10-19     INV022     Rohini Das         Clothing
Saree
25  2025-10-23     INV026    Mehul Patel         Clothing       Formal
Shirt
29  2025-10-26     INV030  Kiran Chauhan      Electronics      Mixer
Grinder

    Quantity  Unit Price (₹)  Total Amount (₹) Payment Method Store
Location  \
0          2            1200               2400            UPI
Mumbai
6          2            1200               2400           Card
Pune
7          1            2800               2800            UPI
Jaipur
10         1            2500               2500            UPI
Pune
```

```
14          2             1800               3600            Card
Pune
21          1             2200               2200            Card
Delhi
25          2             1100               2200            Card
Delhi
29          1             3500               3500             UPI
Delhi

   Salesperson
0     A. Singh
6     N. Gupta
7       S. Rao
10    N. Gupta
14    N. Gupta
21     M. Khan
25     M. Khan
29     M. Khan
```

```python
#4 Grouping and Aggregation
# Total sales by product category
print(df.groupby("Product Category")["Total Amount (₹)"].sum())
```

```
Product Category
Clothing       15550
Cosmetics       5600
Electronics    15600
Groceries       3630
Name: Total Amount (₹), dtype: int64
```

```python
# Average sales per store
print(df.groupby("Store Location")["Total Amount (₹)"].mean())
```

```
Store Location
Delhi     1421.250000
Jaipur    1180.000000
Mumbai     962.500000
Pune      1864.285714
Name: Total Amount (₹), dtype: float64
```

```python
# Total quantity sold by salesperson
print(df.groupby("Salesperson")["Quantity"].sum())
```

```
Salesperson
A. Singh    25
M. Khan     13
N. Gupta    19
S. Rao      16
Name: Quantity, dtype: int64
```

```python
# Count of sales by payment method
print(df["Payment Method"].value_counts())
```

```
Payment Method
UPI     13
Cash     9
Card     8
Name: count, dtype: int64
```

```python
# Total revenue per customer
print(df.groupby("Customer Name")["Total Amount (₹)"].sum())
```

```
Customer Name
Aman Tiwari       800
Aman Yadav       1500
Anjali Mehta     1200
Arjun Singh      2800
Arpit Bansal      900
Deepak Patel      180
Divya Thakur      950
Jyoti Singh       300
Kavita Joshi      720
Kavya Kapoor      900
Kiran Chauhan    3500
Meena Desai       750
Mehul Patel      2200
Mohit Arora       500
Neeraj Gupta     1800
Neha Sethi       1200
Nitin Joshi       520
Pankaj Sinha     1000
Pooja Nair       2400
Priya Patel       450
Raj Sharma       2400
Ramesh Yadav     1600
Ravi Kumar       1000
Rekha Rani        160
Riya Malhotra    3600
Rohini Das       2200
Rohit Verma      1050
Shubham Jain      300
Sneha Iyer       2500
Tanu Sharma      1000
Name: Total Amount (₹), dtype: int64
```

```python
#5 Sorting Data
# Sort by total amount (descending)
print(df.sort_values("Total Amount (₹)", ascending=False))
```

	Date	Invoice ID	Customer Name	Product Category	Product Name
14	2025-10-13	INV015	Riya Malhotra	Clothing	Dress
29	2025-10-26	INV030	Kiran Chauhan	Electronics	Mixer Grinder
7	2025-10-06	INV008	Arjun Singh	Electronics	Smart Watch
10	2025-10-09	INV011	Sneha Iyer	Clothing	Jacket
0	2025-10-01	INV001	Raj Sharma	Electronics	Bluetooth Speaker
6	2025-10-05	INV007	Pooja Nair	Clothing	Jeans
21	2025-10-19	INV022	Rohini Das	Clothing	Saree
25	2025-10-23	INV026	Mehul Patel	Clothing	Formal Shirt
26	2025-10-24	INV027	Neeraj Gupta	Electronics	Electric Kettle
17	2025-10-15	INV018	Ramesh Yadav	Clothing	Hoodie
4	2025-10-03	INV005	Aman Yadav	Electronics	Headphones
23	2025-10-21	INV024	Neha Sethi	Cosmetics	Lipstick
3	2025-10-03	INV004	Anjali Mehta	Cosmetics	Face Cream
2	2025-10-02	INV003	Rohit Verma	Clothing	T-Shirt
19	2025-10-17	INV020	Pankaj Sinha	Cosmetics	Body Lotion
16	2025-10-14	INV017	Tanu Sharma	Groceries	Tea (500g)
11	2025-10-10	INV012	Ravi Kumar	Electronics	Power Bank
12	2025-10-11	INV013	Divya Thakur	Cosmetics	Perfume
18	2025-10-16	INV019	Kavya Kapoor	Electronics	LED Bulb
15	2025-10-13	INV016	Arpit Bansal	Electronics	Mobile Charger
22	2025-10-20	INV023	Aman Tiwari	Electronics	USB Cable
8	2025-10-07	INV009	Meena Desai	Cosmetics	Shampoo
5	2025-10-04	INV006	Kavita Joshi	Groceries	Cooking Oil (1L)
13	2025-10-12	INV014	Nitin Joshi	Groceries	Wheat (10kg)

```
28  2025-10-26     INV029    Mohit Arora        Cosmetics
Hair Oil
1   2025-10-01     INV002    Priya Patel        Groceries         Rice
(5kg)
24  2025-10-22     INV025   Shubham Jain        Groceries    Biscuits
(Pack)
20  2025-10-18     INV021    Jyoti Singh        Groceries
Milk (1L)
9   2025-10-08     INV010   Deepak Patel        Groceries        Sugar
(2kg)
27  2025-10-25     INV028     Rekha Rani        Groceries       Bread
(Loaf)

    Quantity  Unit Price (₹)  Total Amount (₹) Payment Method Store
Location  \
14         2            1800              3600           Card
Pune
29         1            3500              3500            UPI
Delhi
7          1            2800              2800            UPI
Jaipur
10         1            2500              2500            UPI
Pune
0          2            1200              2400            UPI
Mumbai
6          2            1200              2400           Card
Pune
21         1            2200              2200           Card
Delhi
25         2            1100              2200           Card
Delhi
26         1            1800              1800            UPI
Pune
17         1            1600              1600           Card
Delhi
4          1            1500              1500           Cash
Mumbai
23         3             400              1200           Cash
Jaipur
3          2             600              1200            UPI
Jaipur
2          3             350              1050           Card
Pune
19         2             500              1000           Cash
Jaipur
16         5             200              1000           Cash
Mumbai
11         1            1000              1000           Cash
Jaipur
12         1             950               950            UPI
```

```
Mumbai
18          6               150                 900              UPI
Pune
15          3               300                 900              UPI
Jaipur
22          4               200                 800              UPI
Pune
8           3               250                 750             Cash
Mumbai
5           4               180                 720              UPI
Delhi
13          1               520                 520             Cash
Delhi
28          2               250                 500             Card
Mumbai
1           1               450                 450             Cash
Delhi
24          6                50                 300              UPI
Mumbai
20          5                60                 300              UPI
Mumbai
9           2                90                 180             Card
Delhi
27          4                40                 160             Cash
Jaipur

   Salesperson
14    N. Gupta
29     M. Khan
7        S. Rao
10    N. Gupta
0     A. Singh
6     N. Gupta
21     M. Khan
25     M. Khan
26    N. Gupta
17     M. Khan
4     A. Singh
23       S. Rao
3        S. Rao
2     N. Gupta
19       S. Rao
16    A. Singh
11       S. Rao
12    A. Singh
18    N. Gupta
15       S. Rao
22    N. Gupta
8     A. Singh
5      M. Khan
```

```
13     M. Khan
28    A. Singh
1      M. Khan
24    A. Singh
20    A. Singh
9      M. Khan
27      S. Rao

# Sort by location and date
print(df.sort_values(["Store Location", "Date"]))

          Date Invoice ID  Customer Name Product Category
Product Name  \
1   2025-10-01     INV002    Priya Patel        Groceries          Rice
(5kg)
5   2025-10-04     INV006   Kavita Joshi        Groceries   Cooking
Oil (1L)
9   2025-10-08     INV010   Deepak Patel        Groceries        Sugar
(2kg)
13  2025-10-12     INV014    Nitin Joshi        Groceries       Wheat
(10kg)
17  2025-10-15     INV018   Ramesh Yadav         Clothing
Hoodie
21  2025-10-19     INV022     Rohini Das         Clothing
Saree
25  2025-10-23     INV026    Mehul Patel         Clothing       Formal
Shirt
29  2025-10-26     INV030  Kiran Chauhan      Electronics      Mixer
Grinder
3   2025-10-03     INV004   Anjali Mehta        Cosmetics         Face
Cream
7   2025-10-06     INV008    Arjun Singh      Electronics        Smart
Watch
11  2025-10-10     INV012     Ravi Kumar      Electronics
Power Bank
15  2025-10-13     INV016   Arpit Bansal      Electronics     Mobile
Charger
19  2025-10-17     INV020   Pankaj Sinha        Cosmetics        Body
Lotion
23  2025-10-21     INV024     Neha Sethi        Cosmetics
Lipstick
27  2025-10-25     INV028     Rekha Rani        Groceries       Bread
(Loaf)
0   2025-10-01     INV001     Raj Sharma      Electronics  Bluetooth
Speaker
4   2025-10-03     INV005     Aman Yadav      Electronics
Headphones
8   2025-10-07     INV009    Meena Desai        Cosmetics
Shampoo
12  2025-10-11     INV013   Divya Thakur        Cosmetics
```

```
Perfume
16  2025-10-14     INV017    Tanu Sharma        Groceries          Tea
(500g)
20  2025-10-18     INV021    Jyoti Singh        Groceries
Milk (1L)
24  2025-10-22     INV025   Shubham Jain        Groceries    Biscuits
(Pack)
28  2025-10-26     INV029    Mohit Arora        Cosmetics
Hair Oil
2   2025-10-02     INV003    Rohit Verma         Clothing
T-Shirt
6   2025-10-05     INV007     Pooja Nair         Clothing
Jeans
10  2025-10-09     INV011     Sneha Iyer         Clothing
Jacket
14  2025-10-13     INV015  Riya Malhotra         Clothing
Dress
18  2025-10-16     INV019   Kavya Kapoor      Electronics
LED Bulb
22  2025-10-20     INV023    Aman Tiwari      Electronics          USB
Cable
26  2025-10-24     INV027   Neeraj Gupta      Electronics    Electric
Kettle

    Quantity  Unit Price (₹)  Total Amount (₹) Payment Method Store
Location  \
1          1             450               450           Cash
Delhi
5          4             180               720            UPI
Delhi
9          2              90               180           Card
Delhi
13         1             520               520           Cash
Delhi
17         1            1600              1600           Card
Delhi
21         1            2200              2200           Card
Delhi
25         2            1100              2200           Card
Delhi
29         1            3500              3500            UPI
Delhi
3          2             600              1200            UPI
Jaipur
7          1            2800              2800            UPI
Jaipur
11         1            1000              1000           Cash
Jaipur
15         3             300               900            UPI
```

```
Jaipur
19         2              500              1000            Cash
Jaipur
23         3              400              1200            Cash
Jaipur
27         4               40               160            Cash
Jaipur
0          2             1200              2400             UPI
Mumbai
4          1             1500              1500            Cash
Mumbai
8          3              250               750            Cash
Mumbai
12         1              950               950             UPI
Mumbai
16         5              200              1000            Cash
Mumbai
20         5               60               300             UPI
Mumbai
24         6               50               300             UPI
Mumbai
28         2              250               500            Card
Mumbai
2          3              350              1050            Card
Pune
6          2             1200              2400            Card
Pune
10         1             2500              2500             UPI
Pune
14         2             1800              3600            Card
Pune
18         6              150               900             UPI
Pune
22         4              200               800             UPI
Pune
26         1             1800              1800             UPI
Pune

   Salesperson
1      M. Khan
5      M. Khan
9      M. Khan
13     M. Khan
17     M. Khan
21     M. Khan
25     M. Khan
29     M. Khan
3       S. Rao
7       S. Rao
```

```
11      S. Rao
15      S. Rao
19      S. Rao
23      S. Rao
27      S. Rao
0     A. Singh
4     A. Singh
8     A. Singh
12    A. Singh
16    A. Singh
20    A. Singh
24    A. Singh
28    A. Singh
2     N. Gupta
6     N. Gupta
10    N. Gupta
14    N. Gupta
18    N. Gupta
22    N. Gupta
26    N. Gupta
```

```python
#6: Date-Based Analysis
# Total sales per day
daily_sales = df.groupby("Date")["Total Amount (₹)"].sum()
print(daily_sales)
```

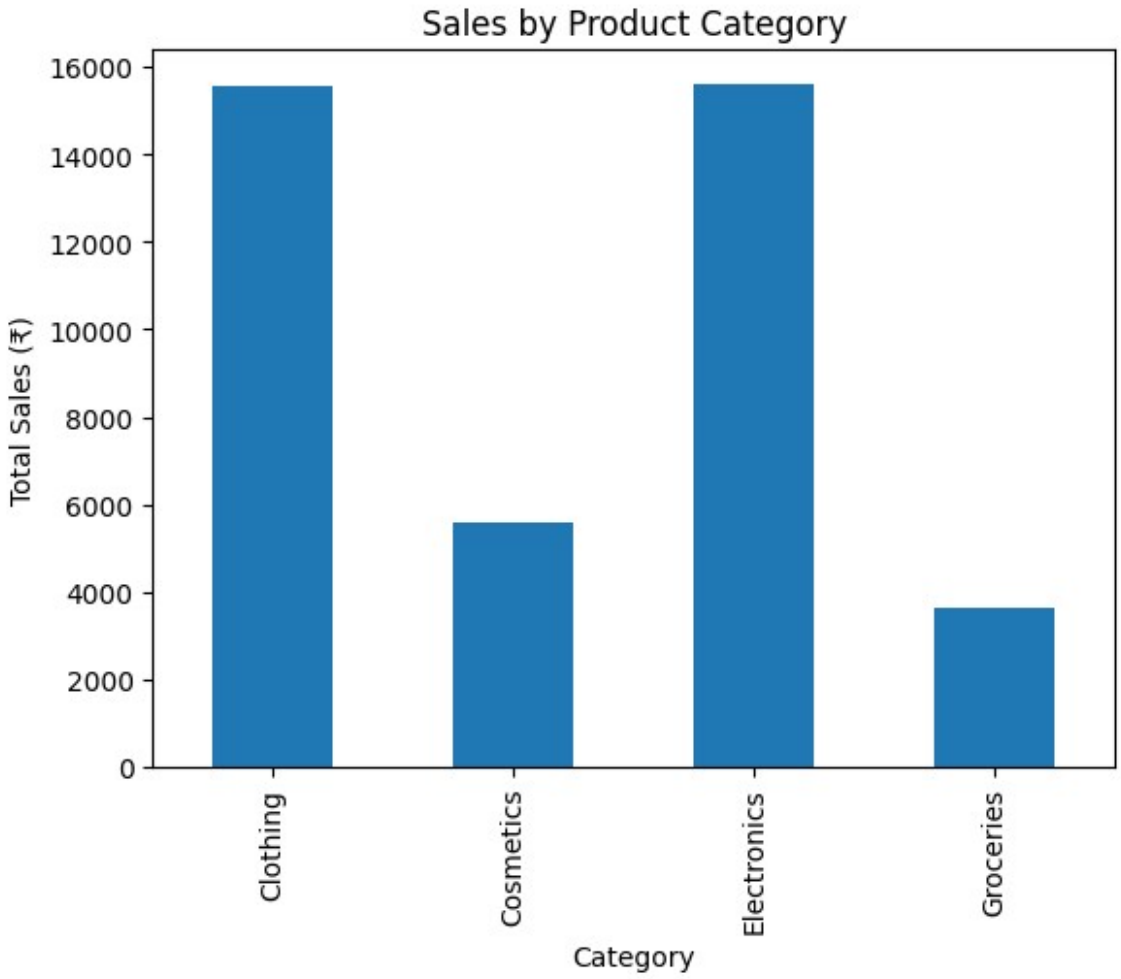
```
Date
2025-10-01    2850
2025-10-02    1050
2025-10-03    2700
2025-10-04     720
2025-10-05    2400
2025-10-06    2800
2025-10-07     750
2025-10-08     180
2025-10-09    2500
2025-10-10    1000
2025-10-11     950
2025-10-12     520
2025-10-13    4500
2025-10-14    1000
2025-10-15    1600
2025-10-16     900
2025-10-17    1000
2025-10-18     300
2025-10-19    2200
2025-10-20     800
2025-10-21    1200
2025-10-22     300
2025-10-23    2200
```

```
2025-10-24    1800
2025-10-25     160
2025-10-26    4000
Name: Total Amount (₹), dtype: int64

# Day with highest revenue
print("Highest revenue day:", daily_sales.idxmax(), "with ₹",
daily_sales.max())

Highest revenue day: 2025-10-13 with ₹ 4500

# Total sales per week
df["Date"] = pd.to_datetime(df["Date"])
df["Week"] = df["Date"].dt.isocalendar().week
print(df.groupby("Week")["Total Amount (₹)"].sum())

Week
40     9720
41     8700
42    11500
43    10460
Name: Total Amount (₹), dtype: int64

#7: Top Performers
# Top 3 selling products
print(df.groupby("Product Name")["Total Amount
(₹)"].sum().sort_values(ascending=False).head(3))

Product Name
Dress            3600
Mixer Grinder    3500
Smart Watch      2800
Name: Total Amount (₹), dtype: int64

# Top salesperson
print(df.groupby("Salesperson")["Total Amount
(₹)"].sum().sort_values(ascending=False).head(1))

Salesperson
N. Gupta    13050
Name: Total Amount (₹), dtype: int64


# City with most revenue
print(df.groupby("Store Location")["Total Amount
(₹)"].sum().sort_values(ascending=False).head(1))

Store Location
Pune    13050
Name: Total Amount (₹), dtype: int64
```

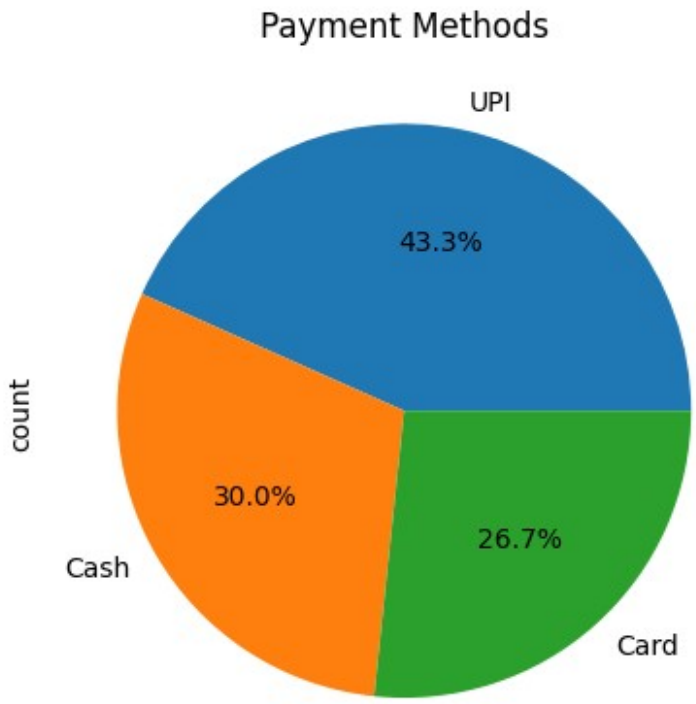
```
# 9: Visualization
import matplotlib.pyplot as plt
```

```
Matplotlib is building the font cache; this may take a moment.
```

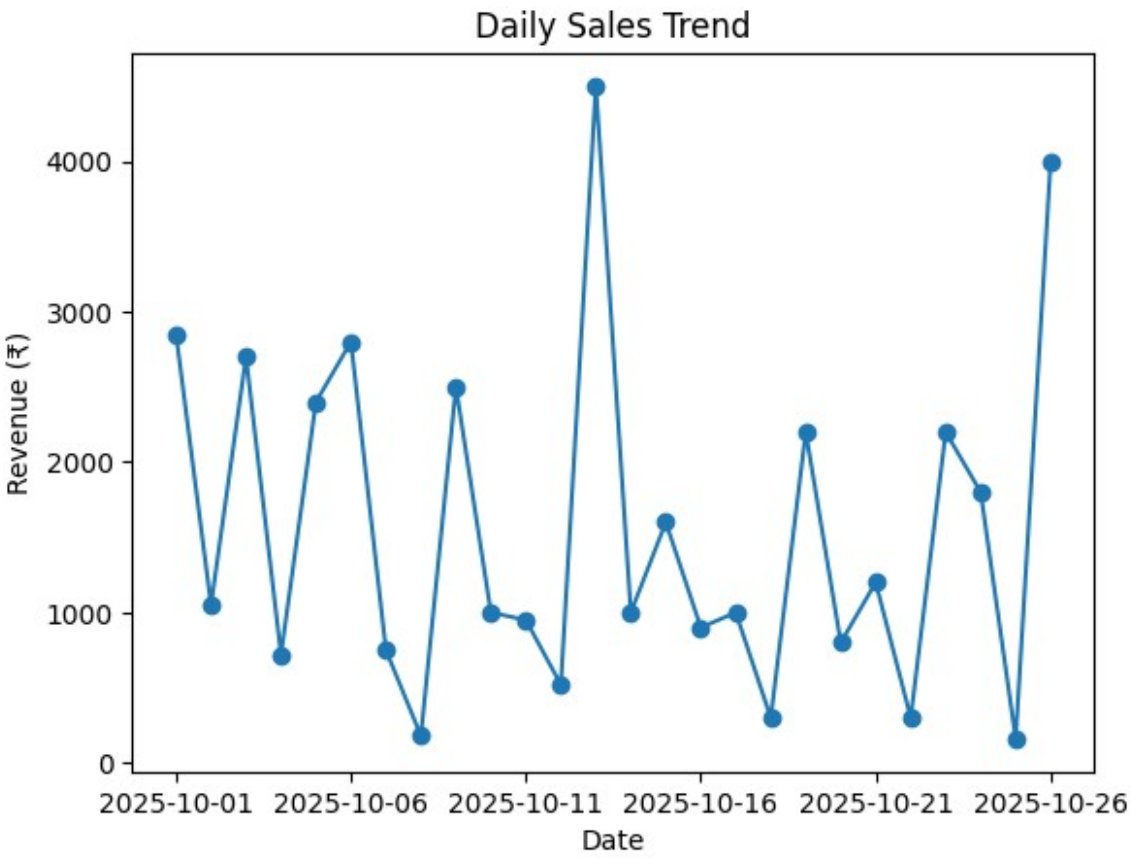
```
# Bar chart - total sales by category
df.groupby("Product Category")["Total Amount
(₹)"].sum().plot(kind="bar", title="Sales by Product Category")
plt.xlabel("Category")
plt.ylabel("Total Sales (₹)")
plt.show()
```




```
# Pie chart - sales by payment method
df["Payment Method"].value_counts().plot(kind="pie", autopct='%1.1f%
%', title="Payment Methods")
plt.show()
```




```
# Line chart - daily total revenue
daily_sales.plot(kind="line", marker="o", title="Daily Sales Trend")
plt.xlabel("Date")
plt.ylabel("Revenue (₹)")
plt.show()
```


Daily Sales Trend
Revenue (₹)
0
1000
2000
3000
4000
2025-10-01
2025-10-06
2025-10-11
2025-10-16
2025-10-21
2025-10-26
Date