

Python_Sales_Data_Analysis > sales_data.csv

```
1 OrderID, Customer, City, Product, Quantity, Price
2 1, Amit, Pune, Laptop, 1, 50000
3 2, Sneha, Mumbai, Mobile, 2, 20000
4 3, Rahul, Delhi, Headphones, 3, 2000
5 4, Amit, Pune, Mobile, 1, 20000
6 5, Priya, Pune, Laptop, 1, 50000
7 6, Sneha, Mumbai, Headphones, 2, 2000
8 7, Rahul, Delhi, Mobile, 2, 20000
9 8, Priya, Pune, Laptop, 1,
```

Ln 9, Col 23 Spaces: 4 UTF-8 CRLF {} Plain Text

Python_Sales_Data_Analysis > data_cleaning.py > ...

```
1 import pandas as pd
2
3 # Load dataset
4 df = pd.read_csv("sales_data.csv")
5
6 print("Original Data:")
7 print(df)
8
9 # Check missing values
10 print("\nMissing Values:")
11 print(df.isnull().sum())
12
13 # Drop rows with missing values
14 df = df.dropna()
15
16 # Remove duplicates
17 df = df.drop_duplicates()
18
19 # Create Total Column
20 df["Total"] = df["Quantity"] * df["Price"]
21
22 # Total Revenue
23 total_revenue = df["Total"].sum()
24 print("\nTotal Revenue:", total_revenue)
25
26 # City-wise Revenue
27 city_sales = df.groupby("City")["Total"].sum()
28 print("\nCity-wise Revenue:")
29 print(city_sales)
```

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```
Command Prompt
C:\Users\Pranali kapare>cd C:\Users\Pranali kapare\Desktop\Python\Python_Sales_Data_Analysis

C:\Users\Pranali kapare\Desktop\Python\Python_Sales_Data_Analysis>python data_cleaning.py
Original Data:
  OrderID Customer  City  Product  Quantity  Price
0        1    Amit   Pune   Laptop      1.0  50000.0
1        2   Sneha  Mumbai  Mobile      2.0  20000.0
2        3   Rahul  Delhi   Headphones  3.0   2000.0
3        4    Amit   Pune   Mobile      1.0  20000.0
4        5   Priya   Pune   Laptop      1.0  50000.0
5        6   Sneha  Mumbai  Headphones  2.0   2000.0
6        7   Rahul  Delhi   Mobile     NaN  20000.0
7        8   Priya   Pune   Laptop      1.0     NaN

Missing Values:
OrderID      0
Customer     0
City         0
Product      0
Quantity     1
Price        1
dtype: int64

Total Revenue: 170000.0

City-wise Revenue:
City
Delhi      6000.0
Mumbai    44000.0
Pune     120000.0
Name: Total, dtype: float64

Cleaned Data Saved Successfully!
```

```
File Edit Selection View Go Run ... Python
EXPLORER
  OPEN EDITORS
    sales_data.csv Python_Sales_Data_A...
    data_cleaning.py Python_Sales... 1
    cleaned_sales_data.csv Python_Sales...
  PYTHON
    Python_Sales_Data_Analysis
      cleaned_sales_data.csv
      data_cleaning.py 1
      sales_data.csv

Python_Sales_Data_Analysis > cleaned_sales_data.csv
1 OrderID, Customer, City, Product, Quantity, Price, Total
2 1, Amit, Pune, Laptop, 1.0, 50000.0, 50000.0
3 2, Sneha, Mumbai, Mobile, 2.0, 20000.0, 40000.0
4 3, Rahul, Delhi, Headphones, 3.0, 2000.0, 6000.0
5 4, Amit, Pune, Mobile, 1.0, 20000.0, 20000.0
6 5, Priya, Pune, Laptop, 1.0, 50000.0, 50000.0
7 6, Sneha, Mumbai, Headphones, 2.0, 2000.0, 4000.0
8
```