**Assignment NO.4**

**Name: Nikhil Irkar**

**Rollno:518 (E1)**

**PRN:202201090076**

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| import pandas as pd    # Read the CSV file into a DataFrame df = pd.read\_csv('/content/grainsales.csv')    # Display the DataFrame print(df) |

**OUTPUT:**

GrainName State City Months Year Sales

1. Ragi Maharashtra Nagpur JAN 2023 1000000
2. Bajra Panjab Amritsar FEB 2023 1500000
3. Ragi Maharashtra Nagpur JAN 2023 1000000
4. Bajra Panjab Amritsar FEB 2023 1500000
5. Ragi Maharashtra Nagpur JAN 2023 1000000
6. Bajra Panjab Amritsar FEB 2023 1500000
7. Oats Hariyana Gurugram MARCH 2023 2000000
8. Sattu Gujarat Surat APRIL 2023 2500000
9. Sooji Tamil Nadu Madurai MAY 2023 3000000
10. Brown rice Telangana Hyderabad JUNE 2023 3500000
11. Wheat West Bengol Asansole JULY 2023 4000000
12. Corn UP Kanpur AUG 2023 4500000
13. Ragi Maharashtra Nagpur JAN 2023 1000000
14. Bajra Panjab Amritsar FEB 2023 1500000
15. Oats Hariyana Gurugram MARCH 2023 2000000
16. Sattu Gujarat Surat APRIL 2023 2500000
17. Sooji Tamil Nadu Madurai MAY 2023 3000000
18. Brown rice Telangana Hyderabad JUNE 2023 3500000
19. Wheat West Bengol Asansole JULY 2023 4000000
20. Corn UP Kanpur AUG 2023 4500000
21. Sooji Tamil Nadu Madurai MAY 2023 3000000
22. Brown rice Telangana Hyderabad JUNE 2023 3500000
23. Wheat West Bengol Asansole JULY 2023 4000000
24. Corn UP Kanpur AUG 2023 4500000
25. Ragi Maharashtra Nagpur JAN 2023 1000000
26. Brown rice Telangana Hyderabad JUNE 2023 3500000

# Identify 10 grains from the dataset grains = df['GrainName'].unique()[:10] print(grains)

**OUTPUT:**

['Ragi' 'Bajra' 'Oats' 'Sattu ' 'Sooji' 'Brown rice ' 'Wheat' 'Corn']

# Group data by month and calculate total sales

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| monthly\_sales = df.groupby('Months')['Sales'].sum()    # The month with the highest sales best\_month = monthly\_sales.idxmax()    # Get the earnings for the best month earnings = monthly\_sales.loc[best\_month]  print("Best month for sales:", best\_month) print("Earnings for the best month:", earnings) |

**OUTPUT:**

|  |  |
| --- | --- |
| Best month for sales: JULY |  |
| Earnings for the best month: 16000000 | |
| # Group data by product and calculate total sales product\_sales = df.groupby('GrainName')['Sales'].sum()    # The product with the highest sales best\_product = product\_sales.idxmax()  print("Product that sold the most:", best\_product) | | |

**OUTPUT:**

Product that sold the most: Wheat