Day-6 2311cs020132

1. Create a DataFrame from the following data:

| Name | Age | Department | Salary |

|----------|-----|--------------|---------|

| John | 28 | HR | 45000 |

| Alice | 34 | IT | 60000 |

| Bob | 23 | Marketing | 35000 |

| Diana | 29 | Finance | 50000 |

**Program:**

import pandas as pd

data = {

'Name': ['John', 'Alice', 'Bob', 'Diana'],

'Age': [28, 34, 23, 29],

'Department': ['HR', 'IT', 'Marketing', 'Finance'],

'Salary': [45000, 60000, 35000, 50000]

}

df = pd.DataFrame(data)

print(df)

2. Write code to:

- Display the first 2 rows of the DataFrame.

- Add a new column named Bonus where the bonus is 10% of the salary.

- Calculate the average salary of employees in the DataFrame.

- Filter and display employees who are older than 25.

**Program:**

import pandas as pd

data = {

'Name': ['John', 'Alice', 'Bob', 'Diana'],

'Age': [28, 34, 23, 29],

'Department': ['HR', 'IT', 'Marketing', 'Finance'],

'Salary': [45000, 60000, 35000, 50000]

}

df = pd.DataFrame(data)

print("First 2 rows of the DataFrame:")

print(df.head(2))

print("\n")

df['Bonus'] = df['Salary'] \* 0.10

print("DataFrame with Bonus column:")

print(df)

print("\n")

average\_salary = df['