

Day-6

Question:

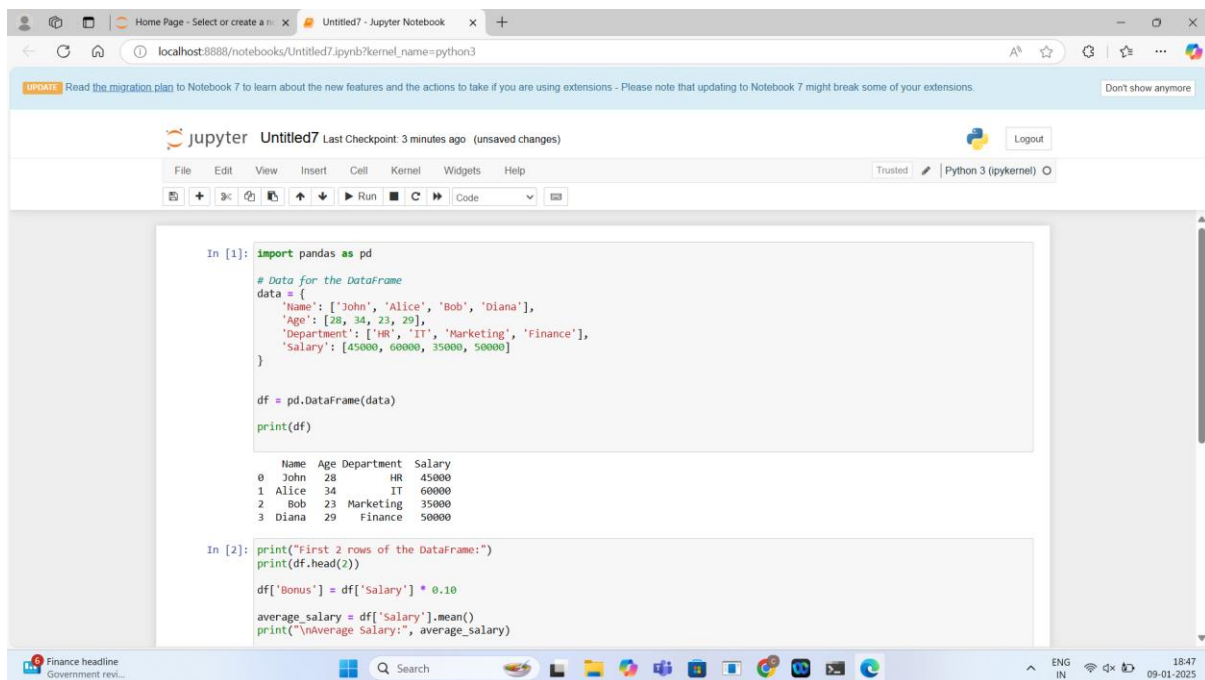
Using the Pandas library, perform the following tasks:

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

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.



The screenshot shows a Jupyter Notebook titled 'Untitled7' running on a Python 3 (ipykernel) environment. The notebook contains two code cells. The first cell creates a DataFrame from a dictionary of employee data. The second cell performs several operations: printing the first two rows, adding a 'Bonus' column (10% of salary), calculating the average salary, and printing the result. The output of the first cell is a table with 4 rows and 4 columns: Name, Age, Department, and Salary.

```
In [1]: import pandas as pd

# Data for the DataFrame
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)

In [2]: print("First 2 rows of the DataFrame:")
print(df.head(2))

df['Bonus'] = df['Salary'] * 0.10
average_salary = df['Salary'].mean()
print("\nAverage Salary:", average_salary)
```

	Name	Age	Department	Salary
0	John	28	HR	45000
1	Alice	34	IT	60000
2	Bob	23	Marketing	35000
3	Diana	29	Finance	50000

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localhost:8888/notebooks/Untitled7.ipynb?kernel_name=python3

UPDATE: Read the [migration plan](#) to Notebook 7 to learn about the new features and the actions to take if you are using extensions - Please note that updating to Notebook 7 might break some of your extensions. Don't show anymore

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In [2]:

```
print("First 2 rows of the DataFrame:")
print(df.head(2))

df['Bonus'] = df['Salary'] * 0.10
average_salary = df['Salary'].mean()
print("\nAverage Salary:", average_salary)

employees_above_25 = df[df['Age'] > 25]
print("\nEmployees older than 25:")
print(employees_above_25)
```

First 2 rows of the DataFrame:

	Name	Age	Department	Salary
0	John	28	HR	45000
1	Alice	34	IT	60000

Average Salary: 47500.0

Employees older than 25:

	Name	Age	Department	Salary	Bonus
0	John	28	HR	45000	4500.0
1	Alice	34	IT	60000	6000.0
3	Diana	29	Finance	50000	5000.0

In []:

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