6.CSV File Handling

Reading Data from CSV File

```python
import pandas as pd

df = pd.read_csv("employees.csv")

print("First 5 Rows of the Dataset:\n", df.head())
```

#Output:

First 5 Rows of the Dataset:

```
     ID    Name  Age   Department  Salary
0  101    Alice   25      HR         50000
1  102      Bob   30   Marketing     60000
2  103  Charlie   22      IT         55000
3  104    David   28     Sales       65000
4  105      Eva   32    Finance      70000
```

Modifying and Manipulating CSV Data

- Filtering Data
  ```python
  high_salary = df[df['Salary'] > 60000]
  print("\nEmployees with Salary > 60000:\n", high_salary)
  ```

  #Output:

  Employees with Salary > 60000:

  ```
     ID  Name  Age Department  Salary
  3  104 David  28   Sales     65000
  4  105   Eva  32  Finance    70000
  ```

- Aggregations and Calculations
  ```python
  average_salary = df['Salary'].mean()
  print("\nAverage Salary:", average_salary)
  ```

  #Output:

Average Salary: 60000.0

- Modifying Data
  ```
  df.loc[df['Department'] == 'IT', 'Salary'] += 5000
  print("\nUpdated Salary for IT Department:\n", df[df['Department'] == 'IT'])
  ```

#Output:

Updated Salary for IT Department:

	ID	Name	Age	Department	Salary
2	103	Charlie	22	IT	60000

Saving Updated Data to a New CSV File

```
df.to_csv("updated_employees.csv", index=False)
```

```
print("\nUpdated DataFrame has been saved as 'updated_employees.csv'")
```