

```
In [4]: import pandas as pd
```

```
In [5]: # Creating the DataFrame with Employee details
data = {
    'Employee': ['John', 'Alice', 'Bob', 'Emma'],
    'Department': ['IT', 'HR', 'Finance', 'IT'],
    'Salary': [60000, 55000, 70000, 72000],
    'Age': [30, 28, 35, 32]
}
df = pd.DataFrame(data)
```

```
In [6]: df
```

```
Out[6]:
```

	Employee	Department	Salary	Age
0	John	IT	60000	30
1	Alice	HR	55000	28
2	Bob	Finance	70000	35
3	Emma	IT	72000	32

```
In [9]: # 1. Display the first two rows
print("First two rows of the DataFrame:")
print(df.head(2))
```

First two rows of the DataFrame:

	Employee	Department	Salary	Age	Experience
0	John	IT	60000	30	5
1	Alice	HR	55000	28	3

```
In [8]: # 2. Add a new column 'Experience' with values [5, 3, 7, 6]
df['Experience'] = [5, 3, 7, 6]
print("\nDataFrame after adding 'Experience' column:")
print(df)
```

DataFrame after adding 'Experience' column:

	Employee	Department	Salary	Age	Experience
0	John	IT	60000	30	5
1	Alice	HR	55000	28	3
2	Bob	Finance	70000	35	7
3	Emma	IT	72000	32	6

```
In [10]: # 3. Find the average salary of all employees
average_salary = df['Salary'].mean()
print("\nAverage Salary of employees:", average_salary)
```

Average Salary of employees: 64250.0

```
In [12]: # Creating dataset of students with name and 3 subjects
data_students = {
    'Name': ['Raj', 'Shekhar', 'Meera', 'Amit', 'Priya'],
    'Math': [85, 78, 92, 88, 76],
    'Science': [80, 85, 89, 90, 70],
}
```

```

    'English': [75, 80, 85, 72, 90]
}
df_students = pd.DataFrame(data_students)
df_students

```

Out[12]:

	Name	Math	Science	English
0	Raj	85	80	75
1	Shekhar	78	85	80
2	Meera	92	89	85
3	Amit	88	90	72
4	Priya	76	70	90

In [13]:

```

# 1. Display all students who scored more than 80 in Math
math_above_80 = df_students[df_students['Math'] > 80]
print("\nStudents who scored more than 80 in Math:")
print(math_above_80)

```

Students who scored more than 80 in Math:

	Name	Math	Science	English
0	Raj	85	80	75
2	Meera	92	89	85
3	Amit	88	90	72

In [14]:

```

# 2. Sort the DataFrame in descending order based on Science scores
sorted_students = df_students.sort_values(by='Science', ascending=False)
print("\nDataFrame sorted by Science scores in descending order:")
print(sorted_students)

```

DataFrame sorted by Science scores in descending order:

	Name	Math	Science	English
3	Amit	88	90	72
2	Meera	92	89	85
1	Shekhar	78	85	80
0	Raj	85	80	75
4	Priya	76	70	90

In [15]:

```

# 3. Find the student with the highest English score
top_english_student = df_students[df_students['English'] == df_students['English'].max()]
print("\nStudent with the highest English score:")
print(top_english_student)

```

Student with the highest English score:

	Name	Math	Science	English
4	Priya	76	70	90

In [ ]: