

```

In [27]: import pandas as pd

# Creating the DataFrame
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)

# 1. Display the first two rows of the DataFrame
print("First two rows of the DataFrame:")
print(df.head(2))

# 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)

# 3. Find the average salary of all employees
average_salary = df["Salary"].mean()
print(f"\nAverage Salary of all employees: ${average_salary:.2f}")

```

First two rows of the DataFrame:

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

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

Average Salary of all employees: \$64250.00

```

In [30]: # task B
import pandas as pd
data={'Name':['Rahul','Prashant','Vivek','Shruti','Sammay'],
      'English':[67,87,98,67,87],
      'Science':[78,98,86,67,78],
      'Maths':[88,82,65,73,75]}
df=pd.DataFrame(data)
print("data frame:")
print(df)

#1.    Display all students who scored more than 80 in Math.
maths_above_80=df.loc[df['Maths']>80]
print("students scored more than 80 in maths are : ")
print(maths_above_80)

#2.    Sort the DataFrame in descending order based on Science scores.
df_sorted=df.sort_values(by='Science',ascending=False)
#sorted data frame
print("Data frame sorted in descending order based on science score : ")
print(df_sorted)

```

#3. Find the student with the highest English score.

```
highest_english_student=df.loc[df['English'].idxmax()]  
print("The student with the highest English Score :")  
print(highest_english_student)
```

data frame:

	Name	English	Science	Maths
0	Rahul	67	78	88
1	Prashant	87	98	82
2	Vivek	98	86	65
3	Shruti	67	67	73
4	Sammay	87	78	75

students scored more than 80 in maths are :

	Name	English	Science	Maths
0	Rahul	67	78	88
1	Prashant	87	98	82

Data frame sorted in descending order based on science score :

	Name	English	Science	Maths
1	Prashant	87	98	82
2	Vivek	98	86	65
0	Rahul	67	78	88
4	Sammay	87	78	75
3	Shruti	67	67	73

The student with the highest English Score :

Name	Vivek
English	98
Science	86
Maths	65

Name: 2, dtype: object

In []: