

```
In [5]: import pandas as pd

# Create table
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)

# Displaying table
print(df)
```

	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 [6]: # Displaying first two rows
print(df.head(2))
```

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

```
In [4]: # Adding Experience column
df["Experience"] = [5, 3, 7, 6]

# Displaying updated DataFrame
print(df)
```

	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 [7]: # Print the average salary
average_salary = df["Salary"].mean()
print("Average Salary:", average_salary)
```

Average Salary: 64250.0

```
In [9]: #Next task
```

```
In [10]: import pandas as pd
import numpy as np

# Create dataset
data = {
    "Student Name": [
        "Aarav", "Vihaan", "Ananya", "Kabir", "Ishaan", "Riya", "Aditya", "Nisha",
        "Arjun", "Meera", "Dev", "Kavya", "Rohan", "Tanya", "Siddharth", "Sneha", "
```

```

    ],
    "Math": np.random.randint(50, 100, 20),
    "Science": np.random.randint(50, 100, 20),
    "English": np.random.randint(50, 100, 20)
}

df = pd.DataFrame(data)

# Display the dataset
print(df)

```

	Student Name	Math	Science	English
0	Aarav	66	57	58
1	Vihaan	85	63	73
2	Ananya	99	72	50
3	Kabir	89	89	93
4	Ishaan	53	70	57
5	Riya	51	65	73
6	Aditya	55	94	60
7	Nisha	91	67	66
8	Samar	53	96	57
9	Pooja	78	73	84
10	Arjun	67	75	84
11	Meera	75	74	82
12	Dev	93	94	54
13	Kavya	83	90	91
14	Rohan	59	78	88
15	Tanya	85	64	90
16	Siddharth	63	94	77
17	Sneha	80	50	56
18	Varun	97	74	58
19	Priya	64	56	57

```

In [11]: # Filter students who scored more than 80 in Math
high_math_scores = df[df["Math"] > 80]

print("Students who scored more than 80 in Math:")
print(high_math_scores)

```

Students who scored more than 80 in Math:

	Student Name	Math	Science	English
1	Vihaan	85	63	73
2	Ananya	99	72	50
3	Kabir	89	89	93
7	Nisha	91	67	66
12	Dev	93	94	54
13	Kavya	83	90	91
15	Tanya	85	64	90
18	Varun	97	74	58

```

In [12]: # Sort DataFrame by Science scores in descending order
sorted_df = df.sort_values(by="Science", ascending=False)

print("Sorted DataFrame based on Science scores:")
print(sorted_df)

```

Sorted DataFrame based on Science scores:

	Student Name	Math	Science	English
8	Samar	53	96	57
12	Dev	93	94	54
6	Aditya	55	94	60
16	Siddharth	63	94	77
13	Kavya	83	90	91
3	Kabir	89	89	93
14	Rohan	59	78	88
10	Arjun	67	75	84
18	Varun	97	74	58
11	Meera	75	74	82
9	Pooja	78	73	84
2	Ananya	99	72	50
4	Ishaan	53	70	57
7	Nisha	91	67	66
5	Riya	51	65	73
15	Tanya	85	64	90
1	Vihaan	85	63	73
0	Aarav	66	57	58
19	Priya	64	56	57
17	Sneha	80	50	56

```
In [13]: # Find the student with the highest English score
highest_english = df.loc[df["English"].idxmax()]

print("Student with the highest English score:")
print(highest_english)
```

Student with the highest English score:

```
Student Name    Kabir
Math            89
Science         89
English         93
Name: 3, dtype: object
```

In []: