

```
In [1]: import pandas as pd
#Creating dataframe
#Creating a dictionary
data={'Employee':['John','Alice','Bob','Emma'],
      'Department':['IT','HR','Finance','IT'],
      'Salary':['60000','55000','70000','72000'],
      'Age':['30','28','35','32']}
#Creating a pandas dataframe
df =pd.DataFrame(data)
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 [2]: # 1. Display the first two row of the dataframe
df.head(2)

Out[2]:   Employee Department Salary Age
0      John          IT  60000  30
1     Alice          HR  55000  28

In [3]: # 2. Add a new cloumn of "Experince" with values [5,3,7,6].
df['Experience']=[5,3,7,6]
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 [4]: # 3. find the average salary of all employees

# Converting Salary column to numeric
df['Salary'] = pd.to_numeric(df['Salary'])

# Calculating the average salary
average_salary = df['Salary'].mean()

print(f"The average salary of all employees is: {average_salary}")

The average salary of all employees is: 64250.0

In [8]: # b) Perform the following tasks:
# Create dataset of Students with name and 3 subject

# Creating the data dictionary
data = {
    'Name': ['Manisha', 'shruti', 'Radhika', 'muskan', 'priya'],
    'Math': [85, 78, 90, 88, 92],
    'Science': [75, 95, 80, 85, 88],
    'English': [80, 85, 78, 92, 95]
}

# Creating the DataFrame
df = pd.DataFrame(data)
print(df)

   Name  Math  Science  English
0  Manisha   85      75      80
1   shruti   78      95      85
2  Radhika   90      80      78
3   muskan   88      85      92
4   priya   92      88      95

In [9]: # 1. Display all students who scored more than 80 in Math

students_above_80_math = df[df['Math'] > 80]
print("Students who scored more than 80 in Math:")
print(students_above_80_math)

Students who scored more than 80 in Math:
   Name  Math  Science  English
0  Manisha   85      75      80
2  Radhika   90      80      78
3   muskan   88      85      92
4   priya   92      88      95

In [10]: # 2. Sort the DataFrame in descending order based on Science scores

sorted_by_science = df.sort_values(by='Science', ascending=False)
print("\nStudents sorted by Science scores (descending):")
print(sorted_by_science)

Students sorted by Science scores (descending):
   Name  Math  Science  English
1  shruti   78      95      85
4   priya   92      88      95
3   muskan   88      85      92
2  Radhika   90      80      78
0  Manisha   85      75      80

In [17]: # 3. Find the student with the highest English score
highest_english_score = df[df['English'] == df['English'].max()]
print("\nStudent with the highest English score:")
print(highest_english_score)
```

Student with the highest English score:

	Name	Math	Science	English
4	priya	92	88	95

In []: