

# Assignment: Sorting, Filtering, and Handling Missing Data

## Question 1:

Sort the DataFrame df by the 'Name' column in ascending order.

### Solution:

```
df.sort_values('Name')
```

## Question 2:

Sort the DataFrame df by the 'Salary' column in descending order

### Solution:

```
df.sort_values('Salary',ascending=False)
```

## Question 3:

Create a new DataFrame that contains only the rows where 'Age' is greater than 25

### Solution:

```
pf = df['Age'].where(cond=df['Age']>25)
pf.dropna()
```

## Question 4:

Create a new DataFrame that contains only the rows where 'Department' is 'Finance'

### Solution:

```
fin = df.where(cond=df['Department']=='Finance')
fin.dropna()
```

**Question 5:**

Use the `.where()` method to create a new DataFrame where 'Salary' is greater than 55000, and replace the rest with NaN

**Solution:**

```
Sal1 = df.where(cond=df['Salary']>55000, other='Nan')
```

**Question 6:**

Use the `.filter()` method to filter the columns to include only 'Name' and 'Department'.

**Solution:**

```
df.filter(items=['Name', 'Department'])
```

**Question 7:**

Calculate the mean age of employees in the DataFrame

**Solution:**

```
df['Age'].mean()
```

**Question 8:**

Calculate the maximum salary in the DataFrame

**Solution:**

```
df['Salary'].max()
```

**Question 9:**

Create a DataFrame where any rows with missing values (NaN) in any column are removed

**Solution:**

```
dt1 = df.dropna()
```

**Question 10:**

Fill the missing values in the 'Salary' column with the mean salary of the remaining employees

**Solution:**

```
df.interpolate()
```