

Task 1- Create a pandas dataframe (DataFrame name as 'df') (10 observation and 5 features)

In [2]:

```
import numpy as np
```

In [3]:

```
import pandas as pd
```

In [6]:

```
data = {
    "Name": ["Alice", "Bob", "Charlie", "David", "Emma", "Frank", "Grace", "Hannah", "Isaac", "Jack"],
    "Age": [25, 32, 19, 47, 28, 40, 22, 30, 35, 29],
    "Gender": ["Female", "Male", "Male", "Male", "Female", "Male", "Female", "Female", "Male", "Male"],
    "City": ["New York", "Los Angeles", "Chicago", "Houston", "Miami", "San Francisco", "Boston", "Seattle", "Austin", "Denver"],
    "Score": [85, 92, 78, 65, 89, 76, 95, 82, 70, 88]
}

df = pd.DataFrame(data)
```

In [7]:

```
df
```

Out[7]:

	Name	Age	Gender	City	Score
0	Alice	25	Female	New York	85
1	Bob	32	Male	Los Angeles	92
2	Charlie	19	Male	Chicago	78
3	David	47	Male	Houston	65
4	Emma	28	Female	Miami	89
5	Frank	40	Male	San Francisco	76
6	Grace	22	Female	Boston	95
7	Hannah	30	Female	Seattle	82
8	Isaac	35	Male	Austin	70
9	Jack	29	Male	Denver	88

Task- 2 Check the info of 'df'

In [8]:

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 10 entries, 0 to 9
Data columns (total 5 columns):
 #   Column  Non-Null Count  Dtype  
---  -
 0   Name    10 non-null     object  
 1   Age     10 non-null     int64   
 2   Gender  10 non-null     object  
 3   City    10 non-null     object  
 4   Score   10 non-null     int64   
dtypes: int64(2), object(3)
memory usage: 528.0+ bytes
```

Task 3- Check the descriptive statistics of 'df'

In [9]:

```
df.describe()
```

Out[9]:

	Age	Score
count	10.000000	10.000000
mean	30.700000	82.000000
std	8.353974	9.706813
min	19.000000	65.000000
25%	25.750000	76.500000
50%	29.500000	83.500000
75%	34.250000	88.750000
max	47.000000	95.000000

Task 4- check the 4th index observation with 'loc' slicing operator.

In [10]:

```
df.loc[4]
```

Out[10]:

```
Name      Emma
Age        28
Gender    Female
City      Miami
Score      89
Name: 4, dtype: object
```

Task 5 - Check the null values in your 'df'

In [11]:

```
df.isnull().sum()
```

Out[11]:

```
Name      0  
Age        0  
Gender     0  
City       0  
Score      0  
dtype: int64
```

In []: