ASSIGNMENT-1

REGISTER NO: 21BEC1803

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AI ML Assignment 1	
Task - 1	Create a pandas dataframe (DataFrame name as 'df') with numpy random values (4 features and 4 observation)
Task - 2	Rename the task - 1 'df' dataframe column names to 'Random value 1', 'Random value 2', 'Random value 3' & 'Random value 4'
Task - 3	Find the descriptive statistics of the 'df' dataframe.
Task - 4	Check for the null values in 'df' and find the data type of the columns.
Task - 5	Display the 'Random value 2' & 'Random value 3' columns with location method and index location method.

TASK 1:

```
[10] import pandas as pd
     import numpy as ar
     ar
```

```
<module 'numpy' from '/usr/local/lib/python3.10/dist-packages/numpy/__init__.py'>
```

```
[11] ar1=ar.random.randint(2,100,4)
     ar1
```

```
array([52, 31, 73, 11])
```

```
[12] ar2=ar.random.randint(4,100,4)
     ar2
```

```
array([92, 19, 30, 23])
```

```
ar3=ar.random.randint(1,100,4)
ar3
```

```
array([69, 26, 48,  2])
```

```
[14] ar4=ar.random.randint(100,200,4)
     ar4
```

```
array([122, 108, 129, 119])
```

```
[15] df=pd.DataFrame([np1,np2,np3,np4])
     df
```

	0	1	2	3
0	37	51	45	27
1	16	49	94	6
2	9	38	65	57
3	177	128	123	149

TASK 2:

```
[16] df.columns=['Random value 1','Random value 2','Random value 3','Random value 4']
     df
```

	Random value 1	Random value 2	Random value 3	Random value 4
0	37	51	45	27
1	16	49	94	6
2	9	38	65	57
3	177	128	123	149

TASK 3:

```
df.describe()
```

	Random value 1	Random value 2	Random value 3	Random value 4
count	4.000000	4.000000	4.000000	4.00000
mean	59.750000	66.500000	81.750000	59.75000
std	79.066955	41.396457	34.072227	63.07337
min	9.000000	38.000000	45.000000	6.00000
25%	14.250000	46.250000	60.000000	21.75000
50%	26.500000	50.000000	79.500000	42.00000
75%	72.000000	70.250000	101.250000	80.00000
max	177.000000	128.000000	123.000000	149.00000

TASK 4:

```
[18] df.isnull().any()

Random value 1    False
Random value 2    False
Random value 3    False
Random value 4    False
dtype: bool
```

TASK 5 LOC METHOD:

```
selected_loc = df.loc[:,['Random value 2','Random value 3']]
selected_loc
```

	Random value 2	Random value 3
0	51	45
1	49	94
2	38	65
3	128	123

TASK 5 ILOC METHOD:

```
[20] selected_iloc = df.iloc[:,1:3]
     selected_iloc
```

	Random value 2	Random value 3
0	51	45
1	49	94
2	38	65
3	128	123