AI ML Assignment 1

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TASK - 1

```
import numpy as np
import pandas as pd

df=pd.DataFrame(np.random.randint(1,100,size=(5,5)),columns=list('1234
5'))
df
```

```
    1   2   3   4   5
0  83  45  50  27  66
1  72   8  49  26  28
2  14  19  70   3  30
3  59  42  80  44  63
4  57  31  17  18  92
```

TASK - 2

```
df.rename(
columns = {'1':'Random value is 1',
           '2':'Random value is 2',
           '3':'Random value is 3',
           '4':'Random value is 4',
           '5':'Random value is 5'
           },inplace=True
)
df
```

```
   Random value is 1  Random value is 2  Random value is 3  Random
value is 4  \
0                 83                 45                 50
27
1                 72                  8                 49
26
2                 14                 19                 70
3
3                 59                 42                 80
44
4                 57                 31                 17
```

```
18

   Random value is 5
0                 66
1                 28
2                 30
3                 63
4                 92
```

TASK - 3

```
df.describe()

       Random value is 1  Random value is 2  Random value is 3  \
count           5.000000           5.000000           5.000000
mean           57.000000          29.000000          53.200000
std            26.239284          15.572412          24.180571
min            14.000000           8.000000          17.000000
25%            57.000000          19.000000          49.000000
50%            59.000000          31.000000          50.000000
75%            72.000000          42.000000          70.000000
max            83.000000          45.000000          80.000000

       Random value is 4  Random value is 5
count           5.000000           5.000000
mean           23.600000          55.800000
std            14.909728          26.948098
min             3.000000          28.000000
25%            18.000000          30.000000
50%            26.000000          63.000000
75%            27.000000          66.000000
max            44.000000          92.000000
```

TASK - 4

```
df.isnull()

   Random value is 1  Random value is 2  Random value is 3  Random
value is 4  \
0              False              False              False
False
1              False              False              False
False
2              False              False              False
False
3              False              False              False
False
4              False              False              False
False
```

```
   Random value is 5
0              False
1              False
2              False
3              False
4              False
```

```
df.dtypes
```

```
Random value is 1    int64
Random value is 2    int64
Random value is 3    int64
Random value is 4    int64
Random value is 5    int64
dtype: object
```

TASK - 5

```
for column in ['Random value is 2', 'Random value is 3']:
  col_index=df.columns.get_loc(column)
  col_data=df[column].tolist()
  print(f"Column'{column}'(Index{col_index}):{col_data}")
```

```
Column'Random value is 2'(Index1):[45, 8, 19, 42, 31]
Column'Random value is 3'(Index2):[50, 49, 70, 80, 17]
```