ASSIGNMENT-1

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Task - 1 create a pandas data frame (data frame name as df)with numpy random valueS(4 features and 4 observations)

```
import pandas as pd
import numpy as np

data = np.random.rand(4, 4)

df = pd.DataFrame(data, columns=['Feature1', 'Feature2', 'Feature3', 'Feature4'])

print(df)
```

Task- 2 Rename the task-1 df data frame column names to random value 1,Random value 2 ,random value 3 &Random value 4

```
import pandas as pd
import numpy as np

data = np.random.rand(4, 4)

df = pd.DataFrame(data, columns=['Feature1', 'Feature2', 'Feature3', 'Feature4'])

df = df.rename(columns={'Feature1': 'Random Value 1',
                        'Feature2': 'Random Value 2',
                        'Feature3': 'Random Value 3',
                        'Feature4': 'Random Value 4'})
print(df)
```

Task 3- Check the descriptive statistics of 'df'

```
print(df.describe())
```

Task 4- check for the null values in df and find the data type of the column

```
null_values = df.isnull().sum()

data_types = df.dtypes

print("Null Values:")
print(null_values)
print("\nData Types:")
print(data_types)
```

Task 5 - Display the Random value 2 & Random value 3 column with location method and index location method

```
selected_columns_loc = df.loc[:, ["Random Value 2", "Random Value 3"]]
print(selected_columns_loc)

selected_columns_iloc = df.iloc[:, [1, 2]]
print(selected_columns_iloc)
```