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

```python
import pandas as pd
import numpy as np


np.random.seed(1003)
data = np.random.randn(4, 4)
df = pd.DataFrame(data)
print("Task 1 - DataFrame:")
print(df)
```

```
Task 1 - DataFrame:
          0         1         2         3
0 -1.321044  2.016753  0.047564 -0.237671
1  0.084123  0.959542 -0.681598  0.529070
2 -0.774918  1.404956 -0.224680 -1.305886
3 -0.678535 -1.620933 -1.279974 -0.224297
```

```python
df.columns = ['Random value 1', 'Random value 2', 'Random value 3', 'Random value 4']
print("\nTask 2 - Column Names:")
print(df.columns)
```

```
Task 2 - Column Names:
Index(['Random value 1', 'Random value 2', 'Random value 3', 'Random value 4'], dtype='object')
```

```python
statistics = df.describe()
print("\nTask 3 - Descriptive Statistics:")
print(statistics)
```

```
Task 3 - Descriptive Statistics:
       Random value 1  Random value 2  Random value 3  Random value 4
count        4.000000        4.000000        4.000000        4.000000
mean        -0.672594        0.690080       -0.534672       -0.309696
std          0.578392        1.600469        0.580849        0.754631
min         -1.321044       -1.620933       -1.279974       -1.305886
25%         -0.911450        0.314423       -0.831192       -0.504725
50%         -0.726727        1.182249       -0.453139       -0.230984
75%         -0.487871        1.557905       -0.156619       -0.035955
max          0.084123        2.016753        0.047564        0.529070
```

```python
null_values = df.isnull().sum()
data_types = df.dtypes
print("\nTask 4 - Null Values:")
print(null_values)
print("\nTask 4 - Data Types:")
print(data_types)
```

```
Task 4 - Null Values:
Random value 1    0
Random value 2    0
Random value 3    0
Random value 4    0
dtype: int64

Task 4 - Data Types:
Random value 1    float64
Random value 2    float64
Random value 3    float64
Random value 4    float64
dtype: object
```

```python
random_2_loc = df.iloc[:, 1]  # Location method
random_3_loc = df.iloc[:, 2]  # Location method

random_2_idx = df['Random value 2']  # Index location method
random_3_idx = df['Random value 3']  # Index location method
```

```
random_3_idx = df[ "Random value 3" ]  # Index Location Method

print("\nTask 5 - Random value 2 (Location Method):")
print(random_2_loc)
print("\nTask 5 - Random value 3 (Location Method):")
print(random_3_loc)
print("\nTask 5 - Random value 2 (Index Location Method):")
print(random_2_idx)
print("\nTask 5 - Random value 3 (Index Location Method):")
print(random_3_idx)
```

```
Task 5 - Random value 2 (Location Method):
0     2.016753
1     0.959542
2     1.404956
3    -1.620933
Name: Random value 2, dtype: float64

Task 5 - Random value 3 (Location Method):
0     0.047564
1    -0.681598
2    -0.224680
3    -1.279974
Name: Random value 3, dtype: float64

Task 5 - Random value 2 (Index Location Method):
0     2.016753
1     0.959542
2     1.404956
3    -1.620933
Name: Random value 2, dtype: float64

Task 5 - Random value 3 (Index Location Method):
0     0.047564
1    -0.681598
2    -0.224680
3    -1.279974
Name: Random value 3, dtype: float64
```