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Questions: -

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

Task- 2 Check the info of 'df'

Task 3- Check the descriptive statistics of 'df'

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

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

Code: -

```python
import pandas as pd

import numpy as np


# Task 1: Create a pandas dataframe with 10 observations and 5 features
data = {

    'Feature1': np.random.rand(10),

    'Feature2': np.random.randint(1, 100, 10),

    'Feature3': np.random.choice(['A', 'B', 'C'], 10),

    'Feature4': np.random.randn(10),
```

```python
    'Feature5': np.random.uniform(0, 1, 10)
}


df = pd.DataFrame(data)


# Task 2: Check the info of 'df'
print("Task 2:")
print(df.info())


# Task 3: Check the descriptive statistics of 'df'
print("\nTask 3:")
print(df.describe())


# Task 4: Check the 4th index observation with 'loc' slicing operator
print("\nTask 4:")
print(df.loc[4])


# Task 5: Check the null values in 'df'
print("\nTask 5:")
print(df.isnull().sum())
```

Output: -

```
Task 2:
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 10 entries, 0 to 9
Data columns (total 5 columns):
 #   Column     Non-Null Count  Dtype
---  ------     --------------  -----
 0   Feature1   10 non-null     float64
 1   Feature2   10 non-null     int64
 2   Feature3   10 non-null     object
 3   Feature4   10 non-null     float64
 4   Feature5   10 non-null     float64
dtypes: float64(3), int64(1), object(1)
memory usage: 528.0+ bytes
None

Task 3:
        Feature1   ...    Feature5
count  10.000000   ...   10.000000
mean    0.631956   ...    0.404667
std     0.217635   ...    0.367578
min     0.281185   ...    0.020806
25%     0.505468   ...    0.065704
50%     0.691573   ...    0.328347
75%     0.755992   ...    0.610785
max     0.885467   ...    0.976423

[8 rows x 4 columns]
```

```
Task 4:
Feature1    0.293805
Feature2          61
Feature3           A
Feature4    1.195145
Feature5    0.962697
Name: 4, dtype: object

Task 5:
Feature1    0
Feature2    0
Feature3    0
Feature4    0
Feature5    0
dtype: int64


...Program finished with exit code 0
Press ENTER to exit console.
```