```python
#Name :- Vedant Rajesh Jadhav
#Reg no :- 21BCE2796
#Campus :- VIT Vellore

import pandas as pd
import numpy as np

# Task 1: Create a pandas dataframe
data = {
    'Feature1': np.random.rand(10),
    'Feature2': np.random.randint(1, 100, 10),
    'Feature3': np.random.choice(['A', 'B', 'C', 'D'], 10),
    'Feature4': np.random.randn(10),
    'Feature5': np.random.uniform(0, 1, 10)
}

df = pd.DataFrame(data)
df
```

	Feature1	Feature2	Feature3	Feature4	Feature5
0	0.739493	39	B	-2.209081	0.933679
1	0.055776	90	D	0.283296	0.116273
2	0.585586	72	A	0.240210	0.952893
3	0.065296	86	B	-0.097260	0.575096
4	0.119688	72	A	0.860834	0.052219
5	0.640211	27	B	0.909632	0.428420
6	0.483359	10	A	-1.350128	0.578097
7	0.063325	20	C	0.288137	0.420774
8	0.887235	99	C	1.739494	0.195495
9	0.641427	86	C	-1.315788	0.846733

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

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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
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# Task 3: Check the descriptive statistics of 'df'
print("\nTask 3:") print(df.describe())
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Task 3:
        Feature1   Feature2   Feature4   Feature5
count  10.000000  10.000000  10.000000  10.000000
mean    0.428140  60.100000  -0.065065   0.509968
std     0.320513  32.814123   1.211821   0.329315
min     0.055776  10.000000  -2.209081   0.052219
25%     0.078894  30.000000  -1.011156   0.251814
50%     0.534472  72.000000   0.261753   0.501758
75%     0.641123  86.000000   0.717660   0.779574
max     0.887235  99.000000   1.739494   0.952893
```

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# Task 4: Check the 4th index observation with 'loc' slicing operator
print("\nTask 4:") print(df.loc[3])  # Note: Indexing is 0-based, so
the 4th index is 3
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Task 4:
Feature1    0.065296
Feature2          86
Feature3           B
Feature4    -0.09726
Feature5    0.575096
Name: 3, dtype: object
```

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

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