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"""
1.create a pandas dataframe(Dataframe name as df)(10
observations[rows]and 5 features[columns])
2.check the info of 'df'
3.check the descriptive statistics of 'df'
4.check the 4th index observation with 'loc' slicing operator
5.check the null values in your 'df'
"""

import numpy as np
import pandas as pd

data = {'name':
['Hemika', 'Neha', 'Keertan', 'Saha', 'Ram', 'Jasu', 'Saha', 'Sasra', 'Lekshi',
'Udvi'],
        'Age': [14, np.nan, 14, 9, 15, 7, 13, 9, 7, 14],
        'Gender': ['F', 'F', 'M', 'F', 'M', 'M', 'F', 'F', 'M', 'F'],
        'School':
['VSN', 'SVSN', 'Vignan', 'KKR', 'FITZEE', 'VSN', 'Gowtham', 'KKR', 'Vignan', 'SVSN'],
        'Class': [9, 6, np.nan, 4, 10, 2, 8, 4, 2, 9]}

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df = pd.DataFrame(data)
df

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	name	Age	Gender	School	Class
0	Hemika	14.0	F	VSN	9.0
1	Neha	NaN	F	SVSN	6.0
2	Keertan	14.0	M	Vignan	NaN
3	Saha	9.0	F	KKR	4.0
4	Ram	15.0	M	FITZEE	10.0
5	Jasu	7.0	M	VSN	2.0
6	Saha	13.0	F	Gowtham	8.0
7	Sasra	9.0	F	KKR	4.0
8	Lekshi	7.0	M	Vignan	2.0
9	Udvi	14.0	F	SVSN	9.0

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df.info()
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<class 'pandas.core.frame.DataFrame'>
RangeIndex: 10 entries, 0 to 9
Data columns (total 5 columns):
 #   Column  Non-Null Count  Dtype
---  -
 0   name    10 non-null     object
 1   Age     9 non-null      float64
 2   Gender  10 non-null     object
 3   School  10 non-null     object
 4   Class   9 non-null      float64
dtypes: float64(2), object(3)
memory usage: 528.0+ bytes

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df.describe()
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	Age	Class
count	9.000000	9.000000
mean	11.333333	6.000000
std	3.278719	3.122499
min	7.000000	2.000000
25%	9.000000	4.000000
50%	13.000000	6.000000
75%	14.000000	9.000000
max	15.000000	10.000000

```
df.iloc[4]
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name	Ram
Age	15.0
Gender	M
School	FITZEE
Class	10.0

Name: 4, dtype: object

```
df.isnull().any()
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name	False
Age	True
Gender	False
School	False
Class	True

dtype: bool