In [1]: ```python
import pandas as pd
```

In [2]: ```python
import numpy as np
```

In [3]: ```python
df=pd.read_csv("StudentsPerformanceTest1.csv")
```

In [4]: ```python
df
```

Out[4]:

	gender	math score	reading score	writing score	Placement Score	placement offer count	Region
0	female	72	72	74.0	78.0	1	Pune
1	female	69	90	88.0	NaN	2	na
2	female	90	95	93.0	74.0	2	Nashik
3	male	47	57	NaN	78.0	1	Na
4	male	na	78	75.0	81.0	3	Pune
5	female	71	Na	78.0	70.0	4	na
6	male	12	44	52.0	12.0	2	Nashik
7	male	NaN	65	67.0	49.0	1	Pune
8	male	5	77	89.0	55.0	0	NaN

In [5]: ```python
df.isnull()
```

Out[5]:

|   | gender | math score | reading score | writing score | Placement Score | placement offer count | Region |
|---|--------|------------|---------------|---------------|-----------------|-----------------------|--------|
| 0 | False | False | False | False | False | False | False |
| 1 | False | False | False | False | True | False | False |
| 2 | False | False | False | False | False | False | False |
| 3 | False | False | False | True | False | False | False |
| 4 | False | False | False | False | False | False | False |
| 5 | False | False | False | False | False | False | False |
| 6 | False | False | False | False | False | False | False |
| 7 | False | True | False | False | False | False | False |
| 8 | False | False | False | False | False | False | True |

In [6]: ```python
series=pd.isnull(df["math score"])
```

In [7]: ```python
df[series]
```

Out[7]:

|   | gender | math score | reading score | writing score | Placement Score | placement offer count | Region |
|---|--------|------------|---------------|---------------|-----------------|-----------------------|--------|
| 7 | male | NaN | 65 | 67.0 | 49.0 | 1 | Pune |

In [8]: `df.notnull()`

Out[8]:

| | gender | math score | reading score | writing score | Placement Score | placement offer count | Region |
|---|---|---|---|---|---|---|---|
| **0** | True | True | True | True | True | True | True |
| **1** | True | True | True | True | False | True | True |
| **2** | True | True | True | True | True | True | True |
| **3** | True | True | True | False | True | True | True |
| **4** | True | True | True | True | True | True | True |
| **5** | True | True | True | True | True | True | True |
| **6** | True | True | True | True | True | True | True |
| **7** | True | False | True | True | True | True | True |
| **8** | True | True | True | True | True | True | False |

In [9]:
```python
from sklearn import preprocessing
le = preprocessing.LabelEncoder()
```

In [10]: `df['gender']=le.fit_transform(df['gender'])`

In [11]: `newdf=df`

In [12]: `df`

Out[12]:

	gender	math score	reading score	writing score	Placement Score	placement offer count	Region
0	0	72	72	74.0	78.0	1	Pune
1	0	69	90	88.0	NaN	2	na
2	0	90	95	93.0	74.0	2	Nashik
3	1	47	57	NaN	78.0	1	Na
4	1	na	78	75.0	81.0	3	Pune
5	0	71	Na	78.0	70.0	4	na
6	1	12	44	52.0	12.0	2	Nashik
7	1	NaN	65	67.0	49.0	1	Pune
8	1	5	77	89.0	55.0	0	NaN

In [ ]: