

```
In [3]: import pandas as pd
import numpy as np
data=pd.DataFrame({"name":["dhana","deepika","usha","gayathri"],"id":[37,40,None,None]})
data
```

Out[3]:

	name	id
0	dhana	37.0
1	deepika	40.0
2	usha	NaN
3	gayathri	NaN

```
In [3]: data.columns=["a","b"]
data
```

Out[3]:

	a	b
0	dhana	37.0
1	deepika	40.0
2	usha	NaN
3	gayathri	NaN

```
In [5]: print(data.isnull())
print(data.notnull())
```

```

a      b
0  False False
1  False False
2  False  True
3  False  True
a      b
0   True  True
1   True  True
2   True False
3   True False
```

```
In [4]: data.fillna(11)
```

Out[4]:

	name	id
0	dhana	37.0
1	deepika	40.0
2	usha	11.0
3	gayathri	11.0

```
In [5]: data=fillna("d")
```

```
-----
NameError                                Traceback (most recent call last)
<ipython-input-5-df9c0b988690> in <module>
----> 1 data=fillna("d")

NameError: name 'fillna' is not defined
```

```
In [6]: data.dropna()
```

Out[6]:

	name	id
0	dhana	37.0
1	deepika	40.0

```
In [7]: data
```

Out[7]:

	a	b
0	dhana	37.0
1	deepika	40.0
2	usha	NaN
3	gayathri	NaN

```
In [9]: data.fillna("d")
```

Out[9]:

	name	id
0	dhana	37
1	deepika	40
2	usha	d
3	gayathri	d

```
In [11]: data.dropna(axis=1)
```

Out[11]:

	name
0	dhana
1	deepika
2	usha
3	gayathri

```
In [16]: data["name"].fillna('ksd')
```

Out[16]:

```
0      dhana
1    deepika
2      usha
3    gayathri
Name: name, dtype: object
```

```
In [17]: data["id"].fillna('ksd')
```

Out[17]:

```
0      37
1      40
2     ksd
3     ksd
Name: id, dtype: object
```

```
In [8]: data.fillna(data.mean())
```

Out[8]:

	a	b
0	dhana	37.0
1	deepika	40.0
2	usha	38.5
3	gayathri	38.5

```
In [12]: data['b'].astype(float)
```

Out[12]:

```
0      37.0
1     40.0
2      NaN
3      NaN
Name: b, dtype: float64
```

```
In [26]: data=pd.DataFrame({"name":["dhana","deepika","usha","gayathri"],"id":[37,40,None,None],"score":[100,346.6,586.3,869.5],"address":["None","None","None","None"]})
data
```

Out[26]:

	name	id	score	address
0	dhana	37.0	100.0	None
1	deepika	40.0	346.6	None
2	usha	NaN	586.3	None
3	gayathri	NaN	869.5	None

```
In [18]: data.replace(37.0,1)
```

Out[18]:

	a	b
0	dhana	1.0
1	deepika	40.0
2	usha	NaN
3	gayathri	NaN

```
In [28]: d=np.arange(0,11,1)
d
```

Out[28]: array([0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10])

```
In [1]: import pandas as pd
import numpy as np
data=pd.DataFrame({"name":["dhana","deepika","usha","gayathri"],"id":[37,40,None,None]})
data
```

Out[1]:

	name	id
0	dhana	37.0
1	deepika	40.0
2	usha	NaN
3	gayathri	NaN

```
In [3]: print(data.fillna(method='ffill'))
```

```

name    id
0  dhana  37.0
1  deepika 40.0
2    usha 40.0
3  gayathri 40.0
```

```
In [4]: print(data.fillna(method='bfill'))
```

```

name    id
0  dhana  37.0
1  deepika 40.0
2    usha  NaN
3  gayathri  NaN
```

```
In [5]: data.interpolate()
```

Out[5]:

	name	id
0	dhana	37.0
1	deepika	40.0
2	usha	40.0
3	gayathri	40.0

```
In [ ]:
```