In [1]:
```
import pandas as pd
import numpy as np
import seaborn as sns
```

In [2]:
```
data=pd.read_excel('data5.xlsx')
```

In [3]:
```
data
```

Out[3]:

	unnamed	temperture	humidity
0	0	1	2
1	1	na	na
2	45	2	34
3	3	45	23
4	4	5	45
5	5	78	67
6	6	7	7
7	7	6	9
8	8	NaN	8
9	9	N/a	NaN
10	10	10	56

In [4]:
```
data.isnull().sum()
```

Out[4]:
```
unnamed       0
temperture    1
humidity      1
dtype: int64
```

Step 1:Detecting NA N/A and na values

In [7]:
```
missing_values=["N/a","na",np.nan]
data=pd.read_excel('data5.xlsx',na_values=missing_values )
```

In [8]:
```
data
```

Out[8]:

	unnamed	temperture	humidity
0	0	1.0	2.0
1	1	NaN	NaN
2	45	2.0	34.0
3	3	45.0	23.0
4	4	5.0	45.0
5	5	78.0	67.0
6	6	7.0	7.0
7	7	6.0	9.0
8	8	NaN	8.0
9	9	NaN	NaN
10	10	10.0	56.0

In [10]:
```
data.isnull().sum()
```

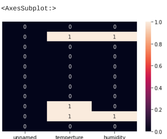
Out[10]:
```
unnamed       0
temperture    3
humidity      2
dtype: int64
```

In [11]:
```
data.isnull().any()
```

Out[11]:
```
unnamed       False
temperture     True
humidity       True
dtype: bool
```

In [13]:
```
sns.heatmap(data.isnull(),yticklabels=False,annot=True)
```

Out[13]:
```
<AxesSubplot:>
```



Step 2:lets learn how to Remove this values

In [14]:
```
data
```

Out[14]:

	unnamed	temperture	humidity
0	0	1.0	2.0
1	1	NaN	NaN
2	45	2.0	34.0
3	3	45.0	23.0
4	4	5.0	45.0
5	5	78.0	67.0
6	6	7.0	7.0
7	7	6.0	9.0
8	8	NaN	8.0
9	9	NaN	NaN
10	10	10.0	56.0

In [18]:
```
df11=pd.DataFrame(data={"temperature":[1,np.nan,3,2,1],"humidity":[22,np.nan,2,np.nan,4]})
```

In [19]:
```
df11
```

Out[19]:

	temperature	humidity
0	1.0	22.0
1	NaN	NaN
2	3.0	2.0
3	2.0	NaN
4	1.0	4.0

In [20]:
```
df11.dropna()
```

Out[20]:

	temperature	humidity
0	1.0	22.0
2	3.0	2.0
4	1.0	4.0

In [31]:
```
df11.dropna(how="all")
```

Out[31]:

	temperature	humidity
0	1.0	22.0
2	3.0	2.0
3	2.0	NaN
4	1.0	4.0

In [34]:
```
df11
```

Out[34]:

	temperature	humidity
0	1.0	22.0
1	NaN	NaN
2	3.0	2.0
3	2.0	NaN
4	1.0	4.0

In [35]:
```
df11.fillna(method='ffill')
```

Out[35]:

	temperature	humidity
0	1.0	22.0
1	1.0	22.0
2	3.0	2.0
3	2.0	2.0
4	1.0	4.0

In [36]:
```
df11.fillna(method='bfill')
```

Out[36]:

	temperature	humidity
0	1.0	22.0
1	3.0	2.0
2	3.0	2.0
3	2.0	4.0
4	1.0	4.0

In [37]:
```
df11.interpolate()
```

Out[37]:

	temperature	humidity
0	1.0	22.0
1	2.0	12.0
2	3.0	2.0
3	2.0	3.0
4	1.0	4.0

In [38]:
```
data
```

Out[38]:

	unnamed	temperture	humidity
0	0	1.0	2.0
1	1	NaN	NaN
2	45	2.0	34.0
3	3	45.0	23.0
4	4	5.0	45.0
5	5	78.0	67.0
6	6	7.0	7.0
7	7	6.0	9.0
8	8	NaN	8.0
9	9	NaN	NaN
10	10	10.0	56.0

In [41]:
```
data1_dropped=data.interpolate()
```

In [42]:
```
data1_dropped
```

Out[42]:

	unnamed	temperture	humidity
0	0	1.000000	2.0
1	1	1.500000	18.0
2	45	2.000000	34.0
3	3	45.000000	23.0
4	4	5.000000	45.0
5	5	78.000000	67.0
6	6	7.000000	7.0
7	7	6.000000	9.0
8	8	7.333333	8.0
9	9	8.666667	32.0
10	10	10.000000	56.0

In [43]:
```
data
```

Out[43]:

	unnamed	temperture	humidity
0	0	1.0	2.0
1	1	NaN	NaN
2	45	2.0	34.0
3	3	45.0	23.0
4	4	5.0	45.0
5	5	78.0	67.0
6	6	7.0	7.0
7	7	6.0	9.0
8	8	NaN	8.0
9	9	NaN	NaN
10	10	10.0	56.0

In [44]:
```
data.fillna({
    "temperture":7778889
})
```

Out[44]:

	unnamed	temperture	humidity
0	0	1.0	2.0
1	1	7778889.0	NaN
2	45	2.0	34.0
3	3	45.0	23.0
4	4	5.0	45.0
5	5	78.0	67.0
6	6	7.0	7.0
7	7	6.0	9.0
8	8	7778889.0	8.0
9	9	7778889.0	NaN
10	10	10.0	56.0

In [ ]:
```
```