Count Values in Pandas Dataframe

In [1]:
```
# importing libraries
import numpy as np
import pandas as pd
```

```
C:\Users\Abhishek\AppData\Local\Temp\ipykernel_50544\657959902.py:3: DeprecationWarning:
Pyarrow will become a required dependency of pandas in the next major release of pandas (pandas 3.0),
(to allow more performant data types, such as the Arrow string type, and better interoperability with other libraries)
but was not found to be installed on your system.
If this would cause problems for you,
please provide us feedback at https://github.com/pandas-dev/pandas/issues/54466

  import pandas as pd
```

In [2]:
```
# Creating dataframe with
# some missing values
import numpy as np
import pandas as pd
NaN = np.nan
dataframe = pd.DataFrame({'Name': ['Shobhit', 'Vaibhav',
                                   'Vimal', 'Sourabh',
                                   'Rahul', 'Shobhit'],
                          'Physics': [11, 12, 13, 14, NaN, 11],
                          'Chemistry': [10, 14, NaN, 18, 20, 10],
                          'Math': [13, 10, 15, NaN, NaN, 13]})



print(dataframe.count())
print (dataframe)
```

```
Name         6
Physics      5
Chemistry    5
Math         4
dtype: int64
      Name  Physics  Chemistry  Math
0  Shobhit     11.0       10.0  13.0
1  Vaibhav     12.0       14.0  10.0
2    Vimal     13.0        NaN  15.0
3  Sourabh     14.0       18.0   NaN
4    Rahul      NaN       20.0   NaN
5  Shobhit     11.0       10.0  13.0
```

In [3]:
```
dataframe.count()
```

Out[3]:
```
Name         6
Physics      5
Chemistry    5
Math         4
dtype: int64
```

In [4]:
```
print(dataframe.count(axis = 1))

print(dataframe.count(axis = 'columns'))
```

```
0    4
1    4
2    3
3    3
4    2
5    4
dtype: int64
0    4
1    4
2    3
3    3
4    2
5    4
dtype: int64
```

In [5]:
```
print(dataframe.isnull().sum())
print("Total Null values count: ",
      dataframe.isnull().sum().sum())
```

```
Name         0
Physics      1
Chemistry    1
Math         2
dtype: int64
Total Null values count:  4
```

In [6]:
```
print("Count of students with physics marks greater than 11 is->",
      dataframe[dataframe['Physics'] > 11]['Name'].count())

dataframe[dataframe['Physics']>11]
```

```
Count of students with physics marks greater than 11 is-> 3
```

Out[6]:

	Name	Physics	Chemistry	Math
1	Vaibhav	12.0	14.0	10.0
2	Vimal	13.0	NaN	15.0
3	Sourabh	14.0	18.0	NaN

In [7]:
```
# greater than 11 and math marks are greater than 9.
print("Count of students ->",
      dataframe[(dataframe['Physics'] > 10) &
                (dataframe['Chemistry'] > 11) &
                (dataframe['Math'] > 9)]['Name'].count())

# dataframe of above result
dataframe[(dataframe['Physics'] > 10 ) &
```

```
          (dataframe['Chemistry'] > 11 ) &
          (dataframe['Math'] > 9 )]
```

```
Count of students -> 1
```

Out[7]:

	Name	Physics	Chemistry	Math
1	Vaibhav	12.0	14.0	10.0

In [8]:

```
# importing Libraries
import pandas as pd
import numpy as np

# Creating dataframe using dictionary
NaN = np.nan
dataframe = pd.DataFrame({'Name': ['Shobhit', 'Vaibhav',
                                   'Vimal', 'Sourabh',
                                   'Rahul', 'Shobhit'],
                          'Physics': [11, 12, 13, 14, NaN, 11],
                          'Chemistry': [10, 14, NaN, 18, 20, 10],
                          'Math': [13, 10, 15, NaN, NaN, 13]})

print("Created Dataframe")
print(dataframe)

# finding Count of all columns
print("Count of all values wrt columns")
print(dataframe.count())

# Count according to rows
print("Count of all values wrt rows")
print(dataframe.count(axis=1))
print(dataframe.count(axis='columns'))

# count of null values
print("Null Values counts ")
print(dataframe.isnull().sum())
print("Total null values",
      dataframe.isnull().sum().sum())

# count of student with greater
# than 11 marks in physics
print("Count of students with physics marks greater than 11 is->",
      dataframe[dataframe['Physics'] > 11]['Name'].count())

# resultant of above dataframe
print(dataframe[dataframe['Physics'] > 11])
print("Count of students ->",
      dataframe[(dataframe['Physics'] > 10) &
                (dataframe['Chemistry'] > 11) &
                (dataframe['Math'] > 9)]['Name'].count())

print(dataframe[(dataframe['Physics'] > 10) &
                (dataframe['Chemistry'] > 11) &
                (dataframe['Math'] > 9)])
```

```
Created Dataframe
      Name  Physics  Chemistry  Math
0  Shobhit     11.0       10.0  13.0
1  Vaibhav     12.0       14.0  10.0
2    Vimal     13.0        NaN  15.0
3  Sourabh     14.0       18.0   NaN
4    Rahul      NaN       20.0   NaN
5  Shobhit     11.0       10.0  13.0
Count of all values wrt columns
Name         6
Physics      5
Chemistry    5
Math         4
dtype: int64
Count of all values wrt rows
0    4
1    4
2    3
3    3
4    2
5    4
dtype: int64
0    4
1    4
2    3
3    3
4    2
5    4
dtype: int64
Null Values counts
Name         0
Physics      1
Chemistry    1
Math         2
dtype: int64
Total null values 4
Count of students with physics marks greater than 11 is-> 3
      Name  Physics  Chemistry  Math
1  Vaibhav     12.0       14.0  10.0
2    Vimal     13.0        NaN  15.0
3  Sourabh     14.0       18.0   NaN
Count of students -> 1
      Name  Physics  Chemistry  Math
1  Vaibhav     12.0       14.0  10.0
```

In [ ]: