Mean Function in Python pandas (Dataframe, Row and column wise mean)

mean() – Mean Function in python pandas is used to calculate the arithmetic mean of a given set of numbers, mean of a data frame ,mean of column and mean of rows , lets see an example of each . We need to use the package name “statistics” in calculation of mean. In this tutorial we will learn,

- How to find the mean of a given set of numbers
- How to find mean of a dataframe

- How to find the mean of a column in dataframe
- How to find row mean of a dataframe

Mean Function in Python

Simple mean function is shown below

```
# calculate arithmetic mean
Import statistics

print(statistics.mean([1,9,5,6,6,7]))
print(statistics.mean([4,-11,-5,16,5,7]))
```

output:

```
5.66666666667
2.66666666667
```

Mean of a dataframe:

Create dataframe

```
import pandas as pd
import numpy as np

#Create a DataFrame
d = {
    'Name':['Alisa','Bobby','Cathrine','Madonna','R
   'Rahul','David','Andrew','Ajay','Teresa'],
   'Score1':[62,47,55,74,31,77,85,63,42,32,71,57],
   'Score2':[89,87,67,55,47,72,76,79,44,92,99,69]}

```

```
11
12  df = pd.DataFrame(d)
13  df
```

So the resultant dataframe will be

	Name	Score1	Score2
0	Alisa	62	89
1	Bobby	47	87
2	Cathrine	55	67
3	Madonna	74	55
4	Rocky	31	47
5	Sebastian	77	72
6	Jaqluine	85	76
7	Rahul	63	79
8	David	42	44
9	Andrew	32	92
10	Ajay	71	99
11	Teresa	57	69

Mean of the dataframe:

```
1  # mean of the dataframe
2  df.mean()
```

it will calculate the mean of the dataframe across columns so the output will be

```
Score1  58.0
Score2  73.0
dtype:  float64
```

Column Mean of the dataframe:

```
# column mean of the dataframe
df.mean(axis=0)
```

axis=0 argument calculates the column wise mean of the dataframe so the result will be

```
Score1 58.0
Score2 73.0
dtype: float64
```

Row Mean of the dataframe:

```
# Row mean of the dataframe
df.mean(axis=1)
```

axis=1 argument calculates the row wise mean of the dataframe so the result will be

```
0    75.5
1    67.0
2    61.0
3    64.5
4    39.0
5    74.5
```

```
6     80.5
7     71.0
8     43.0
9     62.0
10     85.0
11     63.0
dtype: float64
```

Calculate the mean of the specific Column

```
# mean of the specific column
df.loc[:,"Score1"].mean()
```

the above code calculates the mean of the “Score1” column so the result will be

```
58.0
```

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