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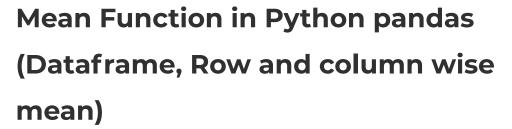
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PYTHON PANDAS TUTORIAL

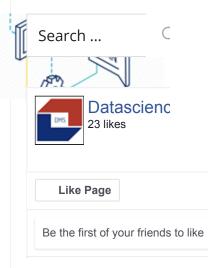
- Python Pandas Data Structure
- Create a Series in python - pandas
- Access the elements of a Series in pandas
- Format integer column in pandas
- Head and tail function in pandas
- Summary Statistics in pandas
- Mean Function in **pandas**





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



- Median Function in pandas
- Mode Function in Pandas
- Harmonic Mean
 Function in Pandas
- Geometric Mean
 Function in Pandas
- Standard deviationFunction pandas
- Variance Function in pandas
- join (merge) data frames in pandas
- Apply Functions in pandas
- Rename the column in pandas
- Reindex in python pandas
- Row bind in pandas
- column bind in pandas
- Assign new column to dataframe in pandas
- Group a dataframe in pandas
- Sort the List in python

- 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 2.666666666667

Mean of a dataframe:

Create dataframe







- sort a dataframe in pandas
- sort a dataframe in pandas by index
- Cross tab in pandas
- Rank the dataframe in pandas
- Drop the duplicate row in pandas
- Find the duplicate rows in pandas
- Drop the row in pandas with conditions
- Drop or delete column in pandas
- Get maximum value of column in pandas
- Get minimum value of column in pandas
- select row with maximum and minimum value in pandas
- Get unique values of dataframe in Pandas
- Get list of column name
 in pandas

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

So the resultant dataframe will be

		Name	Score1	Score2
Ī	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:

- # mean of the dataframe
 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

- Get unique values of a column in pandas
- Hierarchical indexing in pandas
- Index, Select, Filter dataframe in pandas
- Indexing with iloc, loc and ix in pandas
- Reshape wide to long in pandas
- Reshape long to wide in pandas
- Reshape Stack(), unstack() function in Pandas
- Create Pivot table in Pandas
- Scaling, normalizing a column in Pandas

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
```

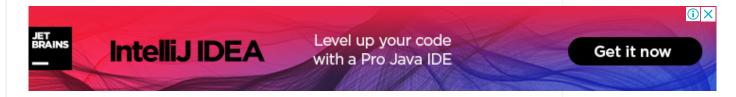
Calculate the mean of the specific Column

```
# 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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