DataFrame In-Built Functions

Intro to Pandas DataFrame

```
import pandas as pd
import numpy as np
import os
path='C:\\Users\\Admin\\Desktop\\iris'
os.chdir(path)
data=pd.read_csv('iris.csv')
data
```

:

	Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
0	5.1	3.5	1.4	0.2	setosa
1	4.9	3.0	1.4	0.2	setosa
2	4.7	3.2	1.3	0.2	setosa
3	4.6	3.1	1.5	0.2	setosa
4	5.0	3.6	1.4	0.2	setosa
...	...	...	...	...	...
145	6.7	3.0	5.2	2.3	virginica
146	6.3	2.5	5.0	1.9	virginica
147	6.5	3.0	5.2	2.0	virginica
148	6.2	3.4	5.4	2.3	virginica
149	5.9	3.0	5.1	1.8	virginica

150 rows × 5 columns

```
data.head()
```

	Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
0	5.1	3.5	1.4	0.2	setosa
1	4.9	3.0	1.4	0.2	setosa
2	4.7	3.2	1.3	0.2	setosa
3	4.6	3.1	1.5	0.2	setosa
4	5.0	3.6	1.4	0.2	setosa

```
data.tail()
```

	Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
145	6.7	3.0	5.2	2.3	virginica
146	6.3	2.5	5.0	1.9	virginica
147	6.5	3.0	5.2	2.0	virginica
148	6.2	3.4	5.4	2.3	virginica
149	5.9	3.0	5.1	1.8	virginica

data.shape

(150,5)

data.describe

```
<bound method NDFrame.describe of      Sepal.Length  Sepal.Width  Petal.Length  Petal.Width    Species
0             5.1          3.5           1.4          0.2     setosa
1             4.9          3.0           1.4          0.2     setosa
2             4.7          3.2           1.3          0.2     setosa
3             4.6          3.1           1.5          0.2     setosa
4             5.0          3.6           1.4          0.2     setosa
..            ...          ...           ...          ...        ...
145           6.7          3.0           5.2          2.3  virginica
146           6.3          2.5           5.0          1.9  virginica
147           6.5          3.0           5.2          2.0  virginica
148           6.2          3.4           5.4          2.3  virginica
149           5.9          3.0           5.1          1.8  virginica

[150 rows x 5 columns]>
```

data.iloc[0:3,0:2]

:

	Sepal.Length	Sepal.Width
0	5.1	3.5
1	4.9	3.0
2	4.7	3.2

data.loc[0:3,("Sepal.Length","Petal.Length")]

	Sepal.Length	Petal.Length
0	5.1	1.4
1	4.9	1.4
2	4.7	1.3
3	4.6	1.5

data.drop('Sepal.Length',axis=1)

	Sepal.Width	Petal.Length	Petal.Width	Species
0	3.5	1.4	0.2	setosa
1	3.0	1.4	0.2	setosa
2	3.2	1.3	0.2	setosa
3	3.1	1.5	0.2	setosa
4	3.6	1.4	0.2	setosa
...	...	...	...	...
145	3.0	5.2	2.3	virginica
146	2.5	5.0	1.9	virginica
147	3.0	5.2	2.0	virginica
148	3.4	5.4	2.3	virginica
149	3.0	5.1	1.8	virginica

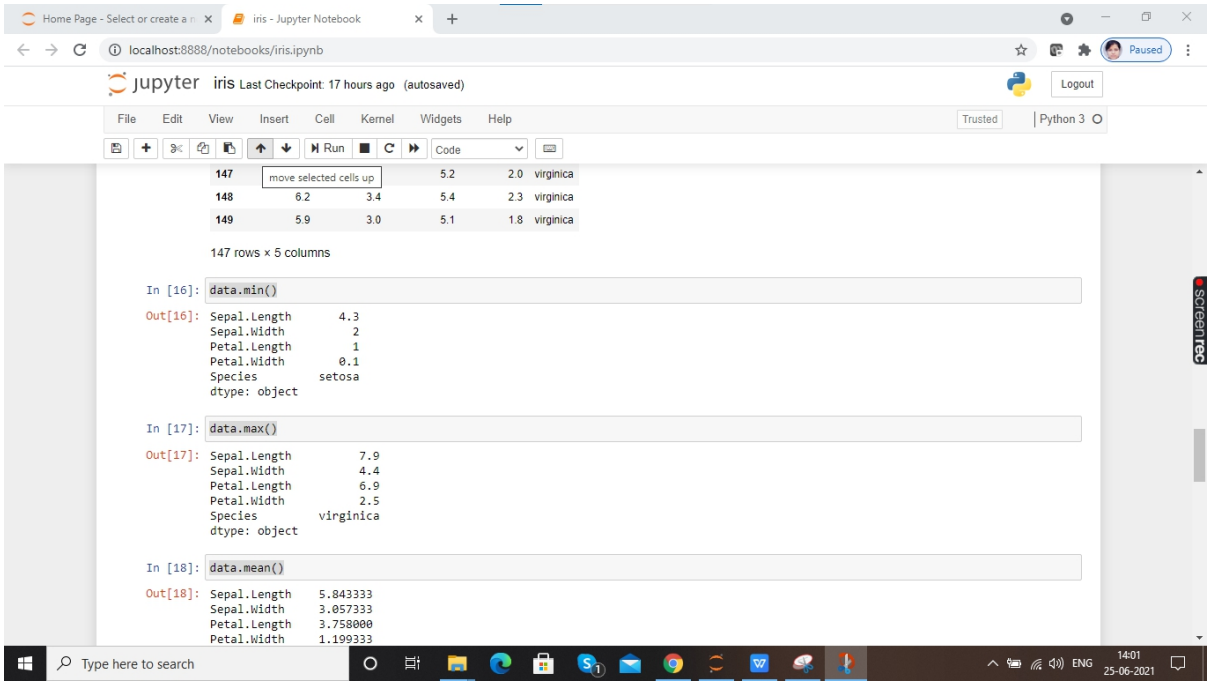
150 rows × 4 columns

data.drop([1,2,3],axis=0)

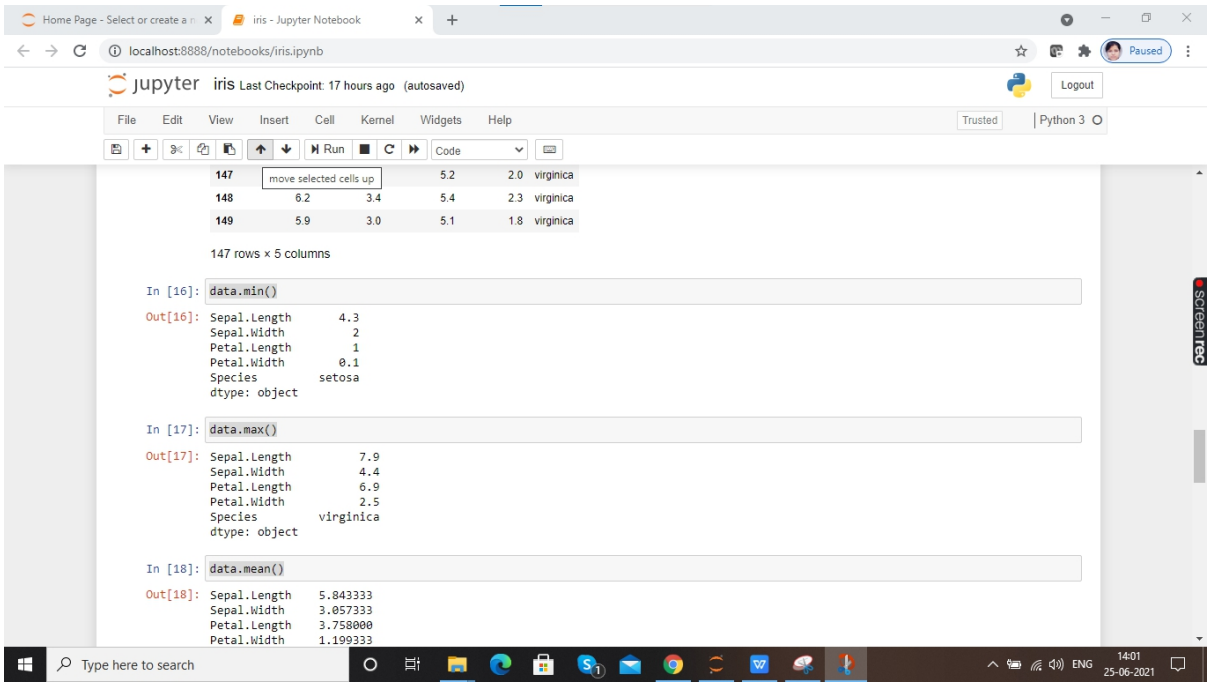
	Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
0	5.1	3.5	1.4	0.2	setosa
4	5.0	3.6	1.4	0.2	setosa
5	5.4	3.9	1.7	0.4	setosa
6	4.6	3.4	1.4	0.3	setosa
7	5.0	3.4	1.5	0.2	setosa
...	...	...	...	...	...
145	6.7	3.0	5.2	2.3	virginica
146	6.3	2.5	5.0	1.9	virginica
147	6.5	3.0	5.2	2.0	virginica
148	6.2	3.4	5.4	2.3	virginica
149	5.9	3.0	5.1	1.8	virginica

147 rows × 5 columns

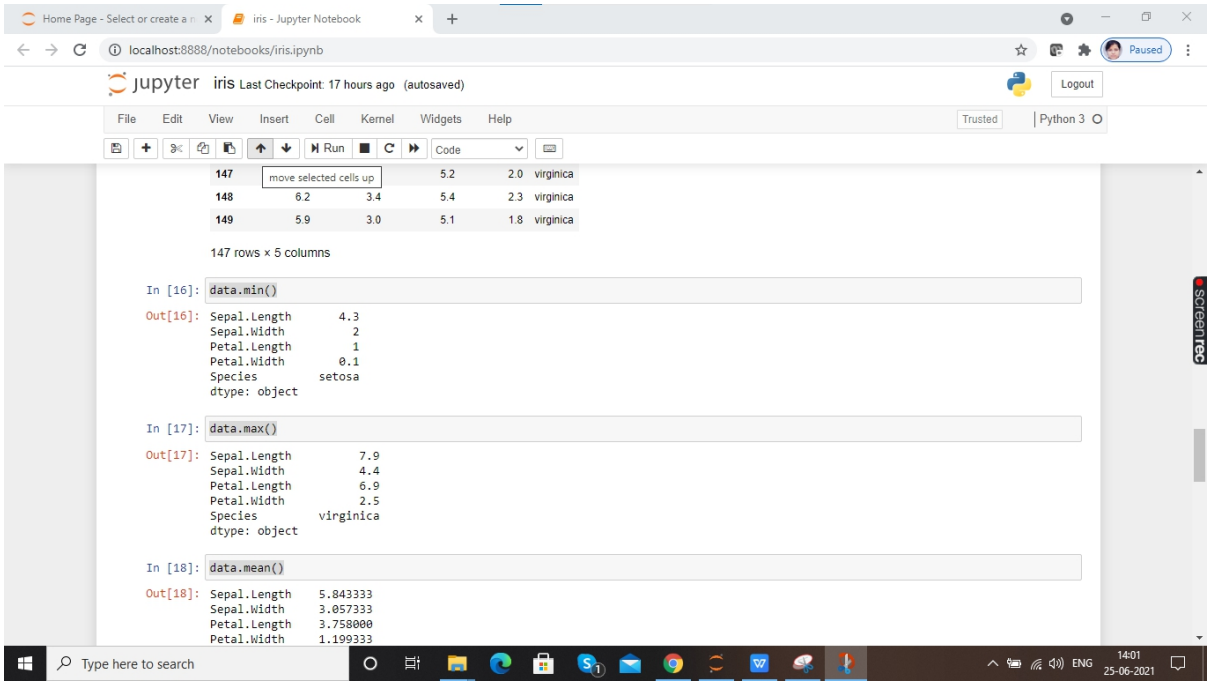
data.min()



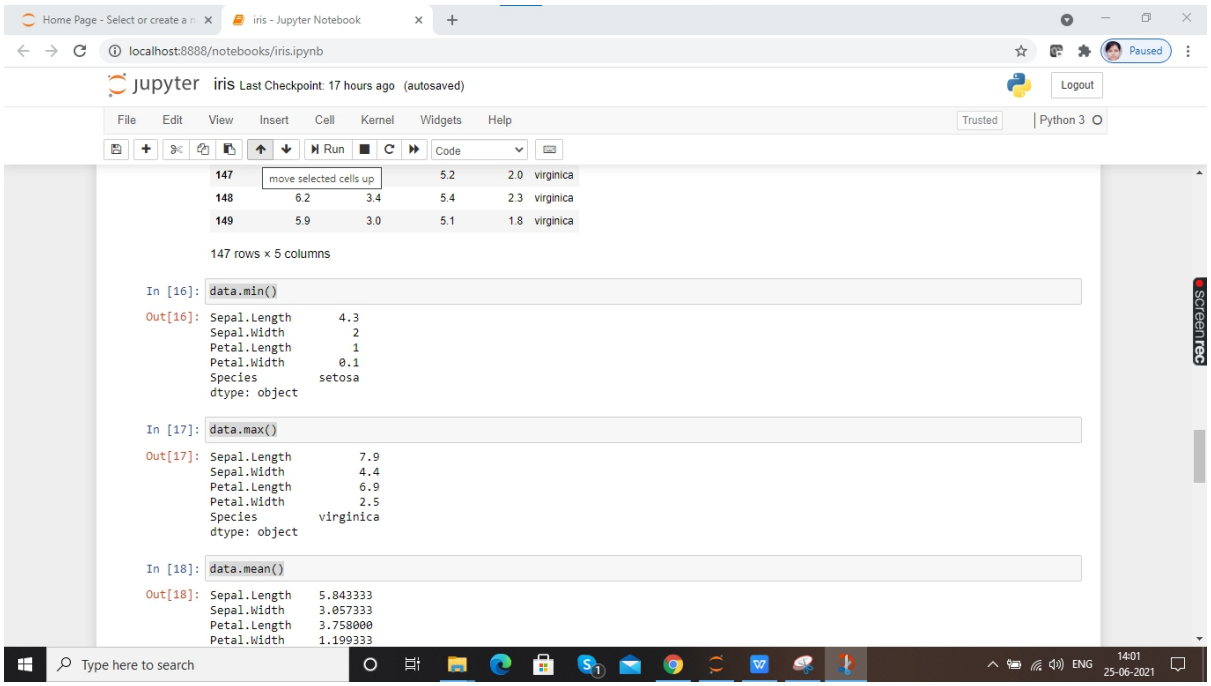
data.max()



data.mean()

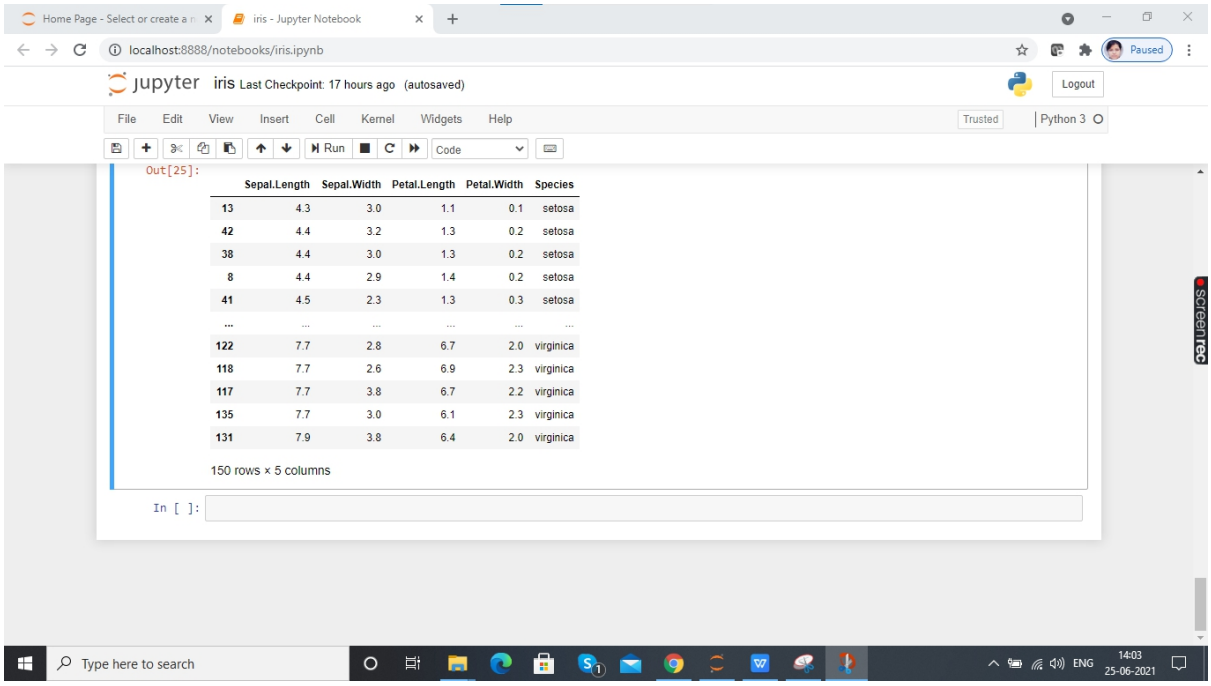


data.median()



data.mode()

```
def half(s):
    return s*0.5
    data[['Sepal.Length','Petal.Length']].apply(half)
    data['Species'].value_counts()
    data.sort_values(by='Sepal.Length')
```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iris - Jupyter Notebook
localhost:8888/notebooks/iris.ipynb
Paused
jupyter iris Last Checkpoint: 17 hours ago (autosaved)
Logout
File Edit View Insert Cell Kernel Widgets Help
Trusted
Python 3
Run
Code
Out[25]:
Sepal.Length Sepal.Width Petal.Length Petal.Width Species
13 4.3 3.0 1.1 0.1 setosa
42 4.4 3.2 1.3 0.2 setosa
38 4.4 3.0 1.3 0.2 setosa
8 4.4 2.9 1.4 0.2 setosa
41 4.5 2.3 1.3 0.3 setosa
... ...
122 7.7 2.8 6.7 2.0 virginica
118 7.7 2.6 6.9 2.3 virginica
117 7.7 3.8 6.7 2.2 virginica
135 7.7 3.0 6.1 2.3 virginica
131 7.9 3.8 6.4 2.0 virginica
150 rows × 5 columns
In [ ]:
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