

Spyder (Python 3.9)

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D:\Master2022_2023\Sim2\Information System\Lect02\Lect2_PythonSetup.py

untitled0.py x Lect2_PythonSetup.py x

```
1 # Student No. 202201723 Mahmoud Atta
2
3 import pandas as pd
4 mydataset = pd.read_csv('iris.csv')
5 x = mydataset.iloc[:,1].values
6 y = mydataset.iloc[:,1].values
7 m = mydataset.groupby('class').size()
8 n = mydataset.head(20)
9
10 s = mydataset.plot(kind='box',
11 subplots = True, layout=(2,2),
12 sharex=False, sharey=False)
13
14 g=pd.plotting.scatter_matrix(mydataset)
15
16
```

Name	Type	Size	Value
g	Array of object	(4, 4)	ndarray object of numpy module
m	Series	(3,)	Series object of pandas.core.series module
mydataset	DataFrame	(150, 5)	Column names: sepal-length, sepal-width, petal-length, petal-width, ...
n	DataFrame	(20, 5)	Column names: sepal-length, sepal-width, petal-length, petal-width, ...
s	Series	(4,)	Series object of pandas.core.series module
x	Array of object	(150, 5)	ndarray object of numpy module
y	Array of float64	(150, 4)	[[5.1 3.5 1.4 0.2] [4.9 3. 1.4 0.2]

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Console 1/A x

Warning

Figures now render in the Plots pane by default. To make them also appear inline in the Console, uncheck "Mute Inline Plotting" under the Plots pane options menu.

In [2]: runfile('D:/Master2022_2023/Sim2/Information System/Lect02/Lect2_PythonSetup.py', wdir='D:/Master2022_2023/Sim2/Information System/Lect02')

g - NumPy object array (read only)

	0	1	2	3
0	AxesSubplot ...	AxesSubplot ...	AxesSubplot ...	AxesSubplot ...
1	AxesSubplot ...	AxesSubplot ...	AxesSubplot ...	AxesSubplot ...
2	AxesSubplot ...	AxesSubplot ...	AxesSubplot ...	AxesSubplot ...
3	AxesSubplot ...	AxesSubplot ...	AxesSubplot ...	AxesSubplot ...

Format Resize Background color Close

m - Series

class	0
Iris-setosa	50
Iris-versicolor	50
Iris-virginica	50

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mydataset - DataFrame

Index	sepal-length	sepal-width	petal-length	petal-width	class
0	5.1	3.5	1.4	0.2	Iris-setosa
1	4.9	3	1.4	0.2	Iris-setosa
2	4.7	3.2	1.3	0.2	Iris-setosa
3	4.6	3.1	1.5	0.2	Iris-setosa
4	5	3.6	1.4	0.2	Iris-setosa
5	5.4	3.9	1.7	0.4	Iris-setosa
6	4.6	3.4	1.4	0.3	Iris-setosa
7	5	3.4	1.5	0.2	Iris-setosa
8	4.4	2.9	1.4	0.2	Iris-setosa
9	4.9	3.1	1.5	0.1	Iris-setosa
10	5.4	3.7	1.5	0.2	Iris-setosa
11	4.8	3.4	1.6	0.2	Iris-setosa
12	4.8	3	1.4	0.1	Iris-setosa
13	4.3	3	1.1	0.1	Iris-setosa

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Index	sepal-length	sepal-width	petal-length	petal-width	class
0	5.1	3.5	1.4	0.2	Iris-setosa
1	4.9	3	1.4	0.2	Iris-setosa
2	4.7	3.2	1.3	0.2	Iris-setosa
3	4.6	3.1	1.5	0.2	Iris-setosa
4	5	3.6	1.4	0.2	Iris-setosa
5	5.4	3.9	1.7	0.4	Iris-setosa
6	4.6	3.4	1.4	0.3	Iris-setosa
7	5	3.4	1.5	0.2	Iris-setosa
8	4.4	2.9	1.4	0.2	Iris-setosa
9	4.9	3.1	1.5	0.1	Iris-setosa
10	5.4	3.7	1.5	0.2	Iris-setosa
11	4.8	3.4	1.6	0.2	Iris-setosa
12	4.8	3	1.4	0.1	Iris-setosa
13	4.3	3	1.1	0.1	Iris-setosa

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Index	0
sepal-length	AxesSubplot(0.125,0.536818;0.352273x0.343182)
sepal-width	AxesSubplot(0.547727,0.536818;0.352273x0.343182)
petal-length	AxesSubplot(0.125,0.125;0.352273x0.343182)
petal-width	AxesSubplot(0.547727,0.125;0.352273x0.343182)

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x - NumPy object array (read only)

	0	1	2	3	4
0	5.1	3.5	1.4	0.2	Iris-setosa
1	4.9	3.0	1.4	0.2	Iris-setosa
2	4.7	3.2	1.3	0.2	Iris-setosa
3	4.6	3.1	1.5	0.2	Iris-setosa
4	5.0	3.6	1.4	0.2	Iris-setosa
5	5.4	3.9	1.7	0.4	Iris-setosa
6	4.6	3.4	1.4	0.3	Iris-setosa
7	5.0	3.4	1.5	0.2	Iris-setosa
8	4.4	2.9	1.4	0.2	Iris-setosa
9	4.9	3.1	1.5	0.1	Iris-setosa
10	5.4	3.7	1.5	0.2	Iris-setosa
11	4.8	3.4	1.6	0.2	Iris-setosa
12	4.8	3.0	1.4	0.1	Iris-setosa
13	4.3	3.0	1.1	0.1	Iris-setosa
14	5.8	4.0	1.2	0.2	Iris-setosa

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y - NumPy object array

	0	1	2	3
0	5.1	3.5	1.4	0.2
1	4.9	3	1.4	0.2
2	4.7	3.2	1.3	0.2
3	4.6	3.1	1.5	0.2
4	5	3.6	1.4	0.2
5	5.4	3.9	1.7	0.4
6	4.6	3.4	1.4	0.3
7	5	3.4	1.5	0.2
8	4.4	2.9	1.4	0.2
9	4.9	3.1	1.5	0.1
10	5.4	3.7	1.5	0.2
11	4.8	3.4	1.6	0.2
12	4.8	3	1.4	0.1
13	4.3	3	1.1	0.1
14	5.8	4	1.2	0.2

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