

```
In [8]: import pandas as pd
import numpy as np
```

```
In [9]: df1 = pd.read_csv("../Data/Iris.csv")
df1
```

```
Out[9]:
```

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	Species
0	1	5.1	3.5	1.4	0.2	Iris setosa
1	2	4.9	3.0	1.4	0.2	Iris setosa
2	3	4.7	3.2	1.3	0.2	Iris setosa
3	4	4.6	3.1	1.5	0.2	Iris setosa
4	5	5.0	3.6	1.4	0.2	Iris setosa
...
145	146	6.7	3.0	5.2	2.3	Iris virginica
146	147	6.3	2.5	5.0	1.9	Iris virginica
147	148	6.5	3.0	5.2	2.0	Iris virginica
148	149	6.2	3.4	5.4	2.3	Iris virginica
149	150	5.9	3.0	5.1	1.8	Iris virginica

150 rows x 6 columns

```
In [10]: df2 = pd.read_csv("../Data/Customers.csv")
df2
```

```
Out[10]:
```

	Age	Annual Income (\$)
0	19	15000
1	21	35000
2	20	86000
3	23	59000
4	31	38000
...
1995	71	184387
1996	91	73158

1997	87	90961
1998	77	182109
1999	90	110610

2000 rows × 2 columns

```
In [11]: df1.groupby("Species").agg({'SepalLengthCm' : ['mean','median','std','r
        'SepalWidthCm' : ['mean','median','std','min','max'],
        'PetalLengthCm' : ['mean','median','std','min','max'],
        'PetalWidthCm' : ['mean','median','std','min','max']})
```

```
Out[11]:
```

Species	SepalLengthCm					SepalWidthCm				
	mean	median	std	min	max	mean	median	std	min	max
Iris-setosa	5.006	5.0	0.352490	4.3	5.8	3.418	3.4	0.381024	2.3	4.3
Iris-versicolor	5.936	5.9	0.516171	4.9	7.0	2.770	2.8	0.313798	2.0	4.3
Iris-virginica	6.588	6.5	0.635880	4.9	7.9	2.974	3.0	0.322497	2.2	4.3

```
In [12]: df2.groupby("Age").agg({'Annual Income ($)' : ['mean','median','std','r
```

```
Out[12]:
```

Age	Annual Income (\$)					
	mean	median	std	min	max	...
0	115200.291667	121412.5	43526.590200	22000	186002	...
1	113246.961538	109883.0	43162.282253	12000	187297	...
2	115497.600000	111618.0	36474.457652	52727	175208	...
3	122450.500000	130387.0	43182.814714	55634	188557	...
4	120743.266667	106816.0	44492.800825	53097	183282	...
...