

In [1]:

```
import pandas as pd
import numpy as np
```

In [2]:

```
df=pd.read_csv("iris.csv")
df
```

Out[2]:

	sepal_length	sepal_width	petal_length	petal_width	species
0	NaN	3.5	1.4	0.2	setosa
1	4.9	NaN	1.4	0.2	setosa
2	4.7	3.2	NaN	0.2	setosa
3	4.6	3.1	1.5	0.2	setosa
4	5.0	NaN	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

In [3]:

```
df.describe()
```

Out[3]:

	sepal_length	sepal_width	petal_length	petal_width
count	146.000000	146.000000	146.000000	146.000000
mean	5.858219	3.045890	3.823288	1.224658
std	0.832508	0.432654	1.743878	0.756905
min	4.300000	2.000000	1.000000	0.100000
25%	5.100000	2.800000	1.600000	0.325000
50%	5.800000	3.000000	4.400000	1.300000
75%	6.400000	3.300000	5.100000	1.800000
max	7.900000	4.400000	6.900000	2.500000

In [7]:

```
df['sepal_length'].describe()
```

```
count    146.000000
mean      5.858219
std       0.832508
min       4.300000
25%       5.100000
50%       5.800000
75%       6.400000
max       7.900000
Name: sepal_length, dtype: float64
```

In [14]:

```
df.groupby('species')['sepal_length'].describe()
```

Out[14]:

	count	mean	std	min	25%	50%	75%	max
species								
setosa	46.0	4.980435	0.341643	4.3	4.800	5.0	5.175	5.7
versicolor	50.0	5.936000	0.516171	4.9	5.600	5.9	6.300	7.0
virginica	50.0	6.588000	0.635880	4.9	6.225	6.5	6.900	7.9

In [35]:

```

for i in df.iloc[:,0:4]:
    print(i+"\n")
    print(df.groupby('species')[i].describe())
    print("\n-----\n")

```

sepal_length

	count	mean	std	min	25%	50%	75%	max
species								
setosa	46.0	4.980435	0.341643	4.3	4.800	5.0	5.175	5.7
versicolor	50.0	5.936000	0.516171	4.9	5.600	5.9	6.300	7.0
virginica	50.0	6.588000	0.635880	4.9	6.225	6.5	6.900	7.9

sepal_width

	count	mean	std	min	25%	50%	75%	max
species								
setosa	46.0	3.423913	0.382498	2.3	3.200	3.4	3.675	4.4
versicolor	50.0	2.770000	0.313798	2.0	2.525	2.8	3.000	3.4
virginica	50.0	2.974000	0.322497	2.2	2.800	3.0	3.175	3.8

petal_length

	count	mean	std	min	25%	50%	75%	max
species								
setosa	46.0	1.469565	0.177476	1.0	1.4	1.50	1.600	1.9
versicolor	50.0	4.260000	0.469911	3.0	4.0	4.35	4.600	5.1
virginica	50.0	5.552000	0.551895	4.5	5.1	5.55	5.875	6.9

petal_width

	count	mean	std	min	25%	50%	75%	max
species								
setosa	46.0	0.243478	0.110860	0.1	0.2	0.2	0.3	0.6
versicolor	50.0	1.326000	0.197753	1.0	1.2	1.3	1.5	1.8
virginica	50.0	2.026000	0.274650	1.4	1.8	2.0	2.3	2.5

In []: