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

```
!pip install -q kaggle
```

```
iris=pd.read_csv("/content/IRIS.csv");
```

```
iris.describe()
```

	sepal_length	sepal_width	petal_length	petal_width
count	150.000000	150.000000	150.000000	150.000000
mean	5.843333	3.054000	3.758667	1.198667
std	0.828066	0.433594	1.764420	0.763161
min	4.300000	2.000000	1.000000	0.100000
25%	5.100000	2.800000	1.600000	0.300000
50%	5.800000	3.000000	4.350000	1.300000
75%	6.400000	3.300000	5.100000	1.800000
max	7.900000	4.400000	6.900000	2.500000

```
iris
```

	sepal_length	sepal_width	petal_length	petal_width	species
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
...	...	...	...	...	...
145	6.7	3.0	5.2	2.3	Iris-virginica
146	6.3	2.5	5.0	1.9	Iris-virginica
147	6.5	3.0	5.2	2.0	Iris-virginica
148	6.2	3.4	5.4	2.3	Iris-virginica
149	5.9	3.0	5.1	1.8	Iris-virginica

150 rows × 5 columns

```
#Mean
iris.mean()
```

```
<ipython-input-24-dd135d1f1581>:2: FutureWarning: The default value of numeric_only in DataFrame.mean is deprecated. In a future version
  iris.mean()
sepal_length    5.843333
sepal_width     3.054000
petal_length    3.758667
petal_width     1.198667
dtype: float64
```

```
iris.loc[:,'sepal_length'].mean()
```

```
5.843333333333334
```

```
species  = iris[iris["species"] == "Iris-setosa"]
```

```
species
```

	sepal_length	sepal_width	petal_length	petal_width	species
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
15	5.7	4.4	1.5	0.4	Iris-setosa
16	5.4	3.9	1.3	0.4	Iris-setosa
17	5.1	3.5	1.4	0.3	Iris-setosa
18	5.7	3.8	1.7	0.3	Iris-setosa
19	5.1	3.8	1.5	0.3	Iris-setosa
20	5.4	3.4	1.7	0.2	Iris-setosa
21	5.1	3.7	1.5	0.4	Iris-setosa
22	4.6	3.6	1.0	0.2	Iris-setosa
23	5.1	3.3	1.7	0.5	Iris-setosa
24	4.8	3.4	1.9	0.2	Iris-setosa
25	5.0	3.0	1.6	0.2	Iris-setosa
26	5.0	3.4	1.6	0.4	Iris-setosa
27	5.2	3.5	1.5	0.2	Iris-setosa
28	5.2	3.4	1.4	0.2	Iris-setosa
29	4.7	3.2	1.6	0.2	Iris-setosa
30	4.8	3.1	1.6	0.2	Iris-setosa

```
species.mean()
```

```
<ipython-input-40-4cf36c004601>:1: FutureWarning: The default value of numeric_only in DataFrame.mean is deprecated. In a future version
  species.mean()
sepal_length    5.006
sepal_width     3.418
petal_length    1.464
petal_width     0.244
dtype: float64
```

```
species.median()
```

```
<ipython-input-46-56d332feb636>:1: FutureWarning: The default value of numeric_only in DataFrame.median is deprecated. In a future versi
  species.median()
sepal_length    5.0
sepal_width     3.4
petal_length    1.5
petal_width     0.2
dtype: float64
```

```
species.mode()
```

	sepal_length	sepal_width	petal_length	petal_width	species
0	5.0	3.4	1.5	0.2	Iris-setosa
1	5.1	NaN	NaN	NaN	NaN

```
species.std()
```

```
<ipython-input-48-18543f7cbfcd>:1: FutureWarning: The default value of numeric_only in DataFrame.std is deprecated. In a future version,
  species.std()
sepal_length    0.352490
sepal_width     0.381024
petal_length    0.173511
petal_width     0.107210
dtype: float64
```

```
species.quantile(0.25)
```

```
<ipython-input-66-06409d6b0ac1>:1: FutureWarning: The default value of numeric_only in DataFrame.quantile is deprecated. In a future ver
  species.quantile(0.25)
sepal_length    4.800
sepal_width     3.125
petal_length    1.400
petal_width     0.200
Name: 0.25, dtype: float64
```

```
species.quantile(0.50)
```

```
<ipython-input-67-a4dff42da3c4>:1: FutureWarning: The default value of numeric_only in DataFrame.quantile is deprecated. In a future ver
  species.quantile(0.50)
sepal_length    5.0
sepal_width     3.4
petal_length    1.5
petal_width     0.2
Name: 0.5, dtype: float64
```

```
species.quantile(0.75)
```

```
<ipython-input-68-0041d7eae106>:1: FutureWarning: The default value of numeric_only in DataFrame.quantile is deprecated. In a future ver
  species.quantile(0.75)
sepal_length    5.200
sepal_width     3.675
petal_length    1.575
petal_width     0.300
Name: 0.75, dtype: float64
```

```
species1  = iris[iris["species"] == "Iris-versicolor"]
```

```
species1
```

	sepal_length	sepal_width	petal_length	petal_width	species
50	7.0	3.2	4.7	1.4	Iris-versicolor
51	6.4	3.2	4.5	1.5	Iris-versicolor
52	6.9	3.1	4.9	1.5	Iris-versicolor
53	5.5	2.3	4.0	1.3	Iris-versicolor
54	6.5	2.8	4.6	1.5	Iris-versicolor
55	5.7	2.8	4.5	1.3	Iris-versicolor
56	6.3	3.3	4.7	1.6	Iris-versicolor
57	4.9	2.4	3.3	1.0	Iris-versicolor
58	6.6	2.9	4.6	1.3	Iris-versicolor
59	5.2	2.7	3.9	1.4	Iris-versicolor
60	5.0	2.0	3.5	1.0	Iris-versicolor
61	5.9	3.0	4.2	1.5	Iris-versicolor
62	6.0	2.2	4.0	1.0	Iris-versicolor
63	6.1	2.9	4.7	1.4	Iris-versicolor
64	5.6	2.9	3.6	1.3	Iris-versicolor
65	6.7	3.1	4.4	1.4	Iris-versicolor
66	5.6	3.0	4.5	1.5	Iris-versicolor
67	5.8	2.7	4.1	1.0	Iris-versicolor
68	6.2	2.2	4.5	1.5	Iris-versicolor
69	5.6	2.5	3.9	1.1	Iris-versicolor
70	5.9	3.2	4.8	1.8	Iris-versicolor
71	6.1	2.8	4.0	1.3	Iris-versicolor
72	6.3	2.5	4.9	1.5	Iris-versicolor
73	6.1	2.8	4.7	1.2	Iris-versicolor
74	6.4	2.9	4.3	1.3	Iris-versicolor
75	6.6	3.0	4.4	1.4	Iris-versicolor
76	6.8	2.8	4.8	1.4	Iris-versicolor
77	6.7	3.0	5.0	1.7	Iris-versicolor
78	6.0	2.9	4.5	1.5	Iris-versicolor
79	5.7	2.6	3.5	1.0	Iris-versicolor
80	5.5	2.4	3.8	1.1	Iris-versicolor
81	5.5	2.4	3.7	1.0	Iris-versicolor
82	5.8	2.7	3.9	1.2	Iris-versicolor
83	6.0	2.7	5.1	1.6	Iris-versicolor
84	5.4	3.0	4.5	1.5	Iris-versicolor
85	6.0	3.4	4.5	1.6	Iris-versicolor
86	6.7	3.1	4.7	1.5	Iris-versicolor
87	6.3	2.3	4.4	1.3	Iris-versicolor
88	5.6	3.0	4.1	1.3	Iris-versicolor
89	5.5	2.5	4.0	1.3	Iris-versicolor
90	5.5	2.6	4.4	1.2	Iris-versicolor
91	6.1	3.0	4.6	1.4	Iris-versicolor
92	5.8	2.6	4.0	1.2	Iris-versicolor
93	5.0	2.3	3.3	1.0	Iris-versicolor
94	5.6	2.7	4.2	1.3	Iris-versicolor
95	5.7	3.0	4.2	1.2	Iris-versicolor

96	5.7	2.9	4.2	1.3	Iris-versicolor
97	6.2	2.9	4.3	1.3	Iris-versicolor
98	5.1	2.5	3.0	1.1	Iris-versicolor
99	5.7	2.8	4.1	1.3	Iris-versicolor

```
species1.mean()
```

```
<ipython-input-43-4e1db15aa885>:1: FutureWarning: The default value of numeric_only in DataFrame.mean is deprecated. In a future version
  species1.mean()
sepal_length    5.936
sepal_width     2.770
petal_length    4.260
petal_width     1.326
dtype: float64
```

```
species1.median()
```

```
<ipython-input-44-8d1f01535037>:1: FutureWarning: The default value of numeric_only in DataFrame.median is deprecated. In a future versi
  species1.median()
sepal_length    5.90
sepal_width     2.80
petal_length    4.35
petal_width     1.30
dtype: float64
```

```
species1.mode()
```

	sepal_length	sepal_width	petal_length	petal_width	species
0	5.5	3.0	4.5	1.3	Iris-versicolor
1	5.6	NaN	NaN	NaN	NaN
2	5.7	NaN	NaN	NaN	NaN

```
species1.std()
```

```
<ipython-input-49-eb7f4711e54f>:1: FutureWarning: The default value of numeric_only in DataFrame.std is deprecated. In a future version,
  species1.std()
sepal_length    0.516171
sepal_width     0.313798
petal_length    0.469911
petal_width     0.197753
dtype: float64
```

```
species1.var()
```

```
<ipython-input-56-afcd319103af>:1: FutureWarning: The default value of numeric_only in DataFrame.var is deprecated. In a future version,
  species1.var()
sepal_length    0.266433
sepal_width     0.098469
petal_length    0.220816
petal_width     0.039106
dtype: float64
```

```
species1.describe()
```