```
In [1]:   import pandas as pd
          import numpy as np
```

```
In [5]:   import seaborn as sb
          import matplotlib.pyplot as plt
```

```
In [14]:  col_names = ['Sepal_Length','Sepal_Width','Petal_Length','Petal_Width','Species']
          df = pd.read_csv('https://archive.ics.uci.edu/ml/machine-learning-databases/iris/ir
```

```
In [17]:  df
```

Out[17]:

	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

```
In [18]:  data = df
```

```
In [19]:  data["Species"].value_counts()
```

```
Out[19]:  Species
          Iris-setosa       50
          Iris-versicolor   50
          Iris-virginica    50
          Name: count, dtype: int64
```

```
In [20]:  data.head()
```

Out[20]:

	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

In [21]:
```python
sum = data['Sepal_Length'].sum()
```

In [24]:
```python
mean = data['Sepal_Length'].mean()
median = data['Sepal_Length'].median()
```

In [26]:
```python
print("Sepal sum ", sum)
print("Sepal mean ", mean)
print("Sepal median ", median)
```

```
Sepal sum  876.5
Sepal mean  5.843333333333334
Sepal median  5.8
```

In [27]:
```python
data.isnull()
```

Out[27]:

	Sepal_Length	Sepal_Width	Petal_Length	Petal_Width	Species
0	False	False	False	False	False
1	False	False	False	False	False
2	False	False	False	False	False
3	False	False	False	False	False
4	False	False	False	False	False
...	...	...	...	...	...
145	False	False	False	False	False
146	False	False	False	False	False
147	False	False	False	False	False
148	False	False	False	False	False
149	False	False	False	False	False

150 rows × 5 columns

In [28]:
```python
data_satosa = data["Species"]=="Iris-setosa"
```

```
In [34]: print("For setosa")
         data[data_satosa].describe()
```

For setosa

Out[34]:

	Sepal_Length	Sepal_Width	Petal_Length	Petal_Width
count	50.00000	50.000000	50.000000	50.00000
mean	5.00600	3.418000	1.464000	0.24400
std	0.35249	0.381024	0.173511	0.10721
min	4.30000	2.300000	1.000000	0.10000
25%	4.80000	3.125000	1.400000	0.20000
50%	5.00000	3.400000	1.500000	0.20000
75%	5.20000	3.675000	1.575000	0.30000
max	5.80000	4.400000	1.900000	0.60000

```
In [36]: data_satosa = data["Species"]=="Iris-virginica"
         print("for Virginica")
         data[data_satosa].describe()
```

for Virginica

Out[36]:

	Sepal_Length	Sepal_Width	Petal_Length	Petal_Width
count	50.00000	50.000000	50.000000	50.00000
mean	6.58800	2.974000	5.552000	2.02600
std	0.63588	0.322497	0.551895	0.27465
min	4.90000	2.200000	4.500000	1.40000
25%	6.22500	2.800000	5.100000	1.80000
50%	6.50000	3.000000	5.550000	2.00000
75%	6.90000	3.175000	5.875000	2.30000
max	7.90000	3.800000	6.900000	2.50000

```
In [37]: data_satosa = data["Species"]=="Iris-versicolor"
         print("for Versicolor")
         data[data_satosa].describe()
```

for Versicolor

Out[37]:

	Sepal_Length	Sepal_Width	Petal_Length	Petal_Width
count	50.000000	50.000000	50.000000	50.000000
mean	5.936000	2.770000	4.260000	1.326000
std	0.516171	0.313798	0.469911	0.197753
min	4.900000	2.000000	3.000000	1.000000
25%	5.600000	2.525000	4.000000	1.200000
50%	5.900000	2.800000	4.350000	1.300000
75%	6.300000	3.000000	4.600000	1.500000
max	7.000000	3.400000	5.100000	1.800000

In [ ]:

In [ ]: