```
import pandas as pd
import numpy as np
import seaborn as sb
import matplotlib.pyplot as plt


df=pd.read_csv("Iris.csv")
df.head()
```

	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

```
data=df
data["species"].value_counts()
```

```
Iris-setosa        50
Iris-versicolor    50
Iris-virginica     50
Name: species, dtype: int64
```

```
data.rename(columns={"sepal_length":"slength","sepal_width":"swidth","petal_length":"pleng
data.head()
```

	slength	swidth	plength	pwidth	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

```
sum_data = data["slength"].sum()
mean_data = data["slength"].mean()
median_data = data["slength"].median()
print("sepal sum ", sum_data)
print("sepal mean",mean_data)
print("sepal median",median_data)
```

```
sepal sum  876.5
sepal mean 5.843333333333334
sepal median 5.8
```

```
data.isnull()
data_satosa=data["species"]=="Iris-setosa"
print("for setosa")
print(data[data_satosa].describe())
```

```
     for setosa
             slength     swidth    plength    pwidth
     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
```

```
print(data[data_satosa].describe())
data_satosa=data["species"]=="Iris-virginica"
```

```
             slength     swidth    plength    pwidth
     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
```

```
print("for virginica")
print(data[data_satosa].describe())
```

```
     for virginica
             slength     swidth    plength    pwidth
     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
```

```
print("for versicolor")
data_satosa=data["species"]=="Iris-versicolor"
print(data[data_satosa].describe())
```

```
     for versicolor
              slength     swidth    plength     pwidth
     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
```