```
In [9]:  import numpy as np
         import pandas as pd
         df = pd.read_csv("IRIS.csv")
         df.head(10)
```

Out[9]:

	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

```
In [6]:  df.shape
```

Out[6]: (150, 5)

```
In [13]:  df_Setosa = df[:50]
          df_versicolor = df[50:100]
          df_versinica = df[100:]
```

```
In [18]:  df_versicolor.shape
```

Out[18]: (50, 5)

```
In [19]:  df_Setosa.shape
```
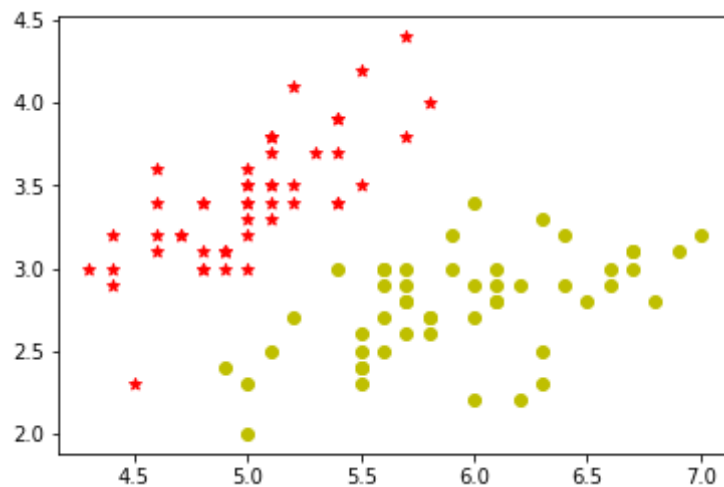
```
Out[19]:    (50, 5)
```

```
In [34]:    from matplotlib import pyplot as plt
```

```
In [36]:    x_vers = df_versicolor["sepal_length"]
```

```
In [37]:    y_vers = df_versicolor["sepal_width"]
```

```
In [38]:    plt.scatter(x,y,marker="o",color="y",label="Versicolor")
            plt.scatter(df_Setosa["sepal_length"],df_Setosa["sepal_width"],marker="*",color = "r",label="Setosa")
```

```
Out[38]:   <matplotlib.collections.PathCollection at 0x15cae7c0460>
```



```
In [40]:    from sklearn.model_selection import train_test_split
            x = df.drop(["species"],axis=1)
            y = df["species"]

            x_train, x_test, y_train, y_test = train_test_split(x,y,test_size=0.2,random_state=1)
```

```
In [42]:    x_test.head()
```

```
Out[42]:
```

sepal_length	sepal_width	petal_length	petal_width

	sepal_length	sepal_width	petal_length	petal_width
14	5.8	4.0	1.2	0.2
98	5.1	2.5	3.0	1.1
75	6.6	3.0	4.4	1.4
16	5.4	3.9	1.3	0.4
131	7.9	3.8	6.4	2.0

In [43]:
```python
x_test.shape
```

Out[43]: (30, 4)

In [44]:
```python
from sklearn.svm import SVC
model = SVC()
```

In [48]:
```python
rissh = model.fit(x_train,y_train)
rissh.score(x_test,y_test)*100
```

Out[48]: 96.66666666666667

In [49]:
```python
x_test
```

Out[49]:
	sepal_length	sepal_width	petal_length	petal_width
14	5.8	4.0	1.2	0.2
98	5.1	2.5	3.0	1.1
75	6.6	3.0	4.4	1.4
16	5.4	3.9	1.3	0.4
131	7.9	3.8	6.4	2.0
56	6.3	3.3	4.7	1.6
141	6.9	3.1	5.1	2.3
44	5.1	3.8	1.9	0.4

	sepal_length	sepal_width	petal_length	petal_width
29	4.7	3.2	1.6	0.2
120	6.9	3.2	5.7	2.3
94	5.6	2.7	4.2	1.3
5	5.4	3.9	1.7	0.4
102	7.1	3.0	5.9	2.1
51	6.4	3.2	4.5	1.5
78	6.0	2.9	4.5	1.5
42	4.4	3.2	1.3	0.2
92	5.8	2.6	4.0	1.2
66	5.6	3.0	4.5	1.5
31	5.4	3.4	1.5	0.4
35	5.0	3.2	1.2	0.2
90	5.5	2.6	4.4	1.2
84	5.4	3.0	4.5	1.5
77	6.7	3.0	5.0	1.7
40	5.0	3.5	1.3	0.3
125	7.2	3.2	6.0	1.8
99	5.7	2.8	4.1	1.3
33	5.5	4.2	1.4	0.2
19	5.1	3.8	1.5	0.3
73	6.1	2.8	4.7	1.2
146	6.3	2.5	5.0	1.9

```
In [51]:   rissh.predict([[5.8,4.0,1.2,0.2]])     #Prediction of 14 row
```

```
Out[51]:   array(['Iris-setosa'], dtype=object)
```

```
In [52]:  rissh.predict([[5.7,2.8,4.1,1.3]])      #Prediction of 99 row

Out[52]:  array(['Iris-versicolor'], dtype=object)

In [53]:  rissh.predict([[6.3,2.5,5.0,1.9]])      #Prediction of 146 row

Out[53]:  array(['Iris-virginica'], dtype=object)

In [ ]:
```