

```
In [7]: import pandas as pd
```

```
In [8]: from sklearn.datasets import load_iris  
iris=load_iris()
```

```
In [10]: iris
```

Out[10]: {'data': array([[5.1, 3.5, 1.4, 0.2],

[4.9, 3. , 1.4, 0.2],
[4.7, 3.2, 1.3, 0.2],
[4.6, 3.1, 1.5, 0.2],
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[6.3, 2.9, 5.6, 1.8],
[6.5, 3. , 5.8, 2.2],
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[7.3, 2.9, 6.3, 1.8],
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[6.8, 3. , 5.5, 2.1],
[5.7, 2.5, 5. , 2.],
[5.8, 2.8, 5.1, 2.4],
[6.4, 3.2, 5.3, 2.3],
[6.5, 3. , 5.5, 1.8],
[7.7, 3.8, 6.7, 2.2],
[7.7, 2.6, 6.9, 2.3],
[6. , 2.2, 5. , 1.5],
[6.9, 3.2, 5.7, 2.3],
[5.6, 2.8, 4.9, 2.],
[7.7, 2.8, 6.7, 2.],
[6.3, 2.7, 4.9, 1.8],
[6.7, 3.3, 5.7, 2.1],
[7.2, 3.2, 6. , 1.8],
[6.2, 2.8, 4.8, 1.8],
[6.1, 3. , 4.9, 1.8],


```
'feature_names': ['sepal length (cm)',  
'sepal width (cm)',  
'petal length (cm)',  
'petal width (cm)'],  
'filename': 'iris.csv',  
'data_module': 'sklearn.datasets.data'}
```

```
In [11]: iris.feature_names
```

```
Out[11]: ['sepal length (cm)',  
'sepal width (cm)',  
'petal length (cm)',  
'petal width (cm)']
```

```
In [12]: iris.target_names
```

```
Out[12]: array(['setosa', 'versicolor', 'virginica'], dtype='<U10')
```

```
In [13]: df=pd.DataFrame(iris.data,columns=iris.feature_names)
```

```
In [14]: df
```

```
Out[14]:
```

	sepal length (cm)	sepal width (cm)	petal length (cm)	petal width (cm)
0	5.1	3.5	1.4	0.2
1	4.9	3.0	1.4	0.2
2	4.7	3.2	1.3	0.2
3	4.6	3.1	1.5	0.2
4	5.0	3.6	1.4	0.2
...
145	6.7	3.0	5.2	2.3
146	6.3	2.5	5.0	1.9
147	6.5	3.0	5.2	2.0
148	6.2	3.4	5.4	2.3
149	5.9	3.0	5.1	1.8

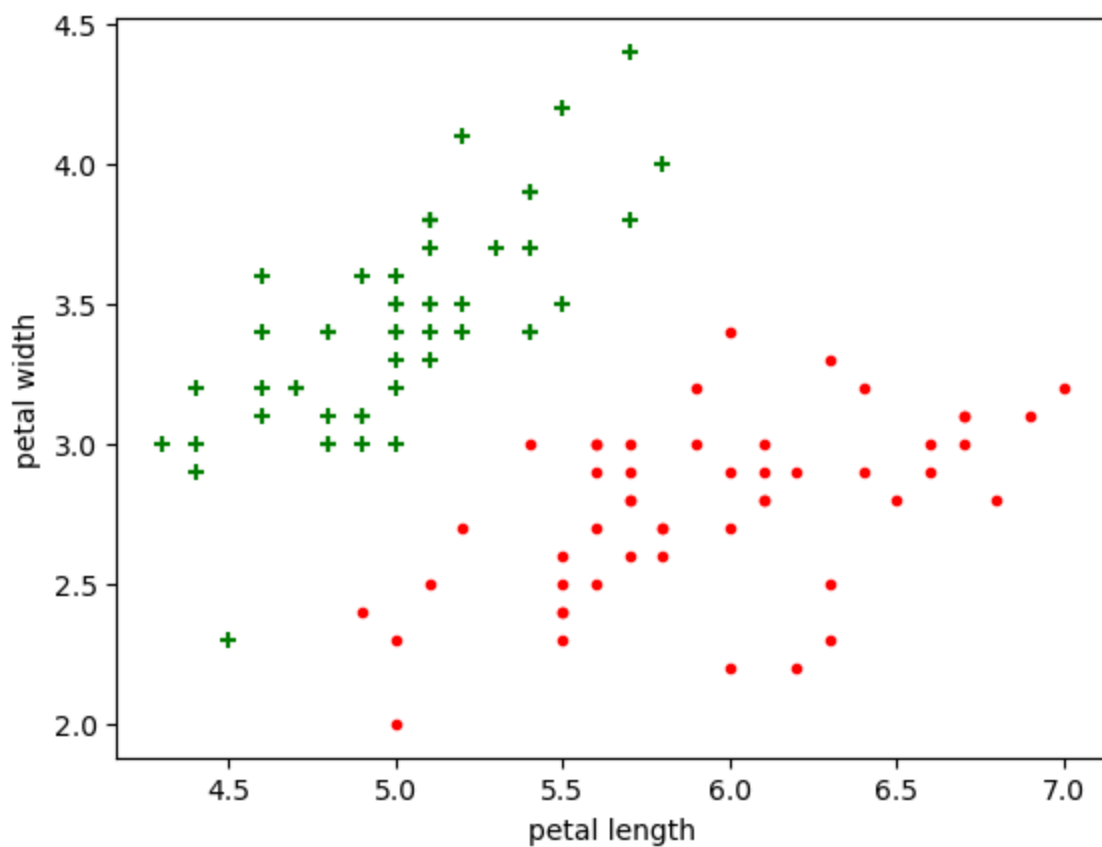
150 rows × 4 columns

```
In [15]: df['target']=iris.target  
df.head()
```

```
Out[15]:
```

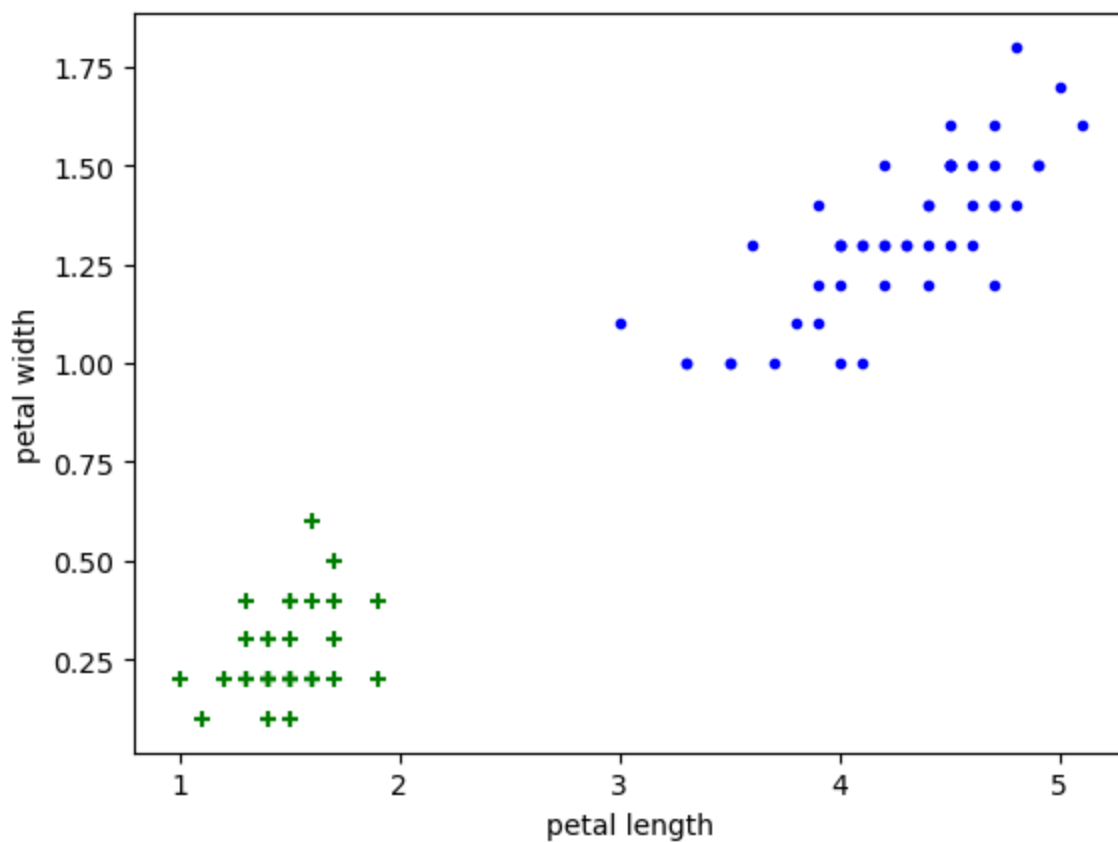
	sepal length (cm)	sepal width (cm)	petal length (cm)	petal width (cm)	target
0	5.1	3.5	1.4	0.2	0
1	4.9	3.0	1.4	0.2	0
2	4.7	3.2	1.3	0.2	0
3	4.6	3.1	1.5	0.2	0
4	5.0	3.6	1.4	0.2	0

```
In [16]: iris.target
```

```
In [34]: plt.xlabel('petal length')
plt.ylabel('petal width')
plt.scatter(df0['petal length (cm)'],df0['petal width (cm)'],color='green',marker='+')
plt.scatter(df1['petal length (cm)'],df1['petal width (cm)'],color='blue',marker='.')
```

```
Out[34]: <matplotlib.collections.PathCollection at 0x197cabcf60>
```



```
In [39]: x=df.drop(['target','flower_names'],axis='columns')
```

```
In [40]: y=df.target
```

```
In [41]: from sklearn.model_selection import train_test_split
x_train,x_test,y_train,y_test=train_test_split(x,y,test_size=0.2)
```

```
In [42]: len(x_train)
```

```
Out[42]: 120
```

```
In [43]: from sklearn.svm import SVC
model=SVC()
```

```
In [44]: model
```

```
Out[44]: SVC()
```

```
In [46]: model.fit(x_train,y_train)
```

```
Out[46]: SVC()
```

```
In [48]: model.predict([[4.8,3.0,1.4,0.3]])
```

C:\Users\Dell\anaconda3\lib\site-packages\sklearn\base.py:450: UserWarning: X does not have valid feature names, but SVC was fitted with feature names
warnings.warn(

```
Out[48]: array([0])
```

```
In [52]: model=SVC(c=10)
model.fit(x_train,y_train)
model.score(x_test,y_test)
```

```
-----
TypeError                                Traceback (most recent call last)
~\AppData\Local\Temp\ipykernel_10356\2645454347.py in <module>
----> 1 model=SVC(c=10)
      2 model.fit(x_train,y_train)
      3 model.score(x_test,y_test)

TypeError: __init__() got an unexpected keyword argument 'c'
```

```
In [ ]:
```