```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
import warnings
warnings.simplefilter("ignore")
df=pd.read_csv(r'Iris.csv')
df.isnull().sum()
     Id
     {\tt SepalLengthCm}
                       0
     SepalWidthCm
     PetalLengthCm
                       0
     PetalWidthCm
     Species
                       0
     dtype: int64
df.columns
     Index(['Id', 'SepalLengthCm', 'SepalWidthCm', 'PetalLengthCm', 'PetalWidthCm', 'Species'],\\
           dtype='object')
df=df.drop(columns="Id")
```

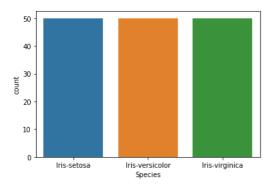
	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	Species	10.
0	5.1	3.5	1.4	0.2	Iris-setosa	
1	4.9	3.0	1.4	0.2	Iris-setosa	
2	4.7	3.2	1.3	0.2	Iris-setosa	
3	4.6	3.1	1.5	0.2	Iris-setosa	
4	5.0	3.6	1.4	0.2	Iris-setosa	
145	6.7	3.0	5.2	2.3	Iris-virginica	
146	6.3	2.5	5.0	1.9	Iris-virginica	
147	6.5	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

df['Species'].value_counts()

Iris-setosa 50
Iris-versicolor 50
Iris-virginica 50
Name: Species, dtype: int64

sns.countplot(df['Species']);



x=df.iloc[:,:4]
y=df.iloc[:,4]

```
from sklearn.model_selection import train_test_split
x\_train, x\_test, y\_train, y\_test=train\_test\_split(x, y, random\_state=0)
x_train.shape
          (112, 4)
x_test.shape
          (38, 4)
y_train.shape
          (112,)
y_test.shape
          (38,)
from sklearn.linear_model import LogisticRegression
model=LogisticRegression()
model.fit(x_train,y_train)
y_pred=model.predict(x_test)
y_pred
         array(['Iris-virginica', 'Iris-versicolor', 'Iris-setosa',
    'Iris-virginica', 'Iris-setosa', 'Iris-virginica', 'Iris-setosa',
    'Iris-versicolor', 'Iris-versicolor', 'Iris-versicolor',
    'Iris-virginica', 'Iris-versicolor', 'Iris-versicolor',
    'Iris-versicolor', 'Iris-versicolor', 'Iris-setosa',
    'Iris-versicolor', 'Iris-versicolor', 'Iris-setosa',
    'Iris-virginica', 'Iris-versicolor', 'Iris-setosa', 'Iris-setosa',
    'Iris-virginica', 'Iris-setosa', 'Iris-setosa', 'Iris-versicolor',
    'Iris-versicolor', 'Iris-setosa', 'Iris-virginica',
    'Iris-versicolor', 'Iris-setosa', 'Iris-virginica',
    'Iris-virginica', 'Iris-versicolor', 'Iris-setosa',
    'Iris-virginica', 'Iris-versicolor', 'Iris-setosa',
    'Iris-virginica'], dtype=object)
from sklearn.metrics import accuracy_score,confusion_matrix
confusion_matrix(y_test,y_pred)
          accuracy=accuracy_score(y_test,y_pred)*100
print("Accuracy of the model is {:.2f}".format(accuracy))
          Accuracy of the model is 97.37
```

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