


▼ IMPORTING LIBRARIES


```
import numpy as np
import pandas as pd
df=pd.read_csv('/content/Iris.csv')
df
```




	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	Species	
	0	1	5.1	3.5	1.4	0.2	Iris-setosa
	1	2	4.9	3.0	1.4	0.2	Iris-setosa
	2	3	4.7	3.2	1.3	0.2	Iris-setosa
	3	4	4.6	3.1	1.5	0.2	Iris-setosa
	4	5	5.0	3.6	1.4	0.2	Iris-setosa

145	146	6.7	3.0	5.2	2.3	Iris-virginica	
146	147	6.3	2.5	5.0	1.9	Iris-virginica	
147	148	6.5	3.0	5.2	2.0	Iris-virginica	
148	149	6.2	3.4	5.4	2.3	Iris-virginica	
149	150	5.9	3.0	5.1	1.8	Iris-virginica	

150 rows × 6 columns



```
#FOR PRINTING FIRST 5 DATAS
df.head()
```



	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	Species
0	1	5.1	3.5	1.4	0.2	Iris-setosa
1	2	4.9	3.0	1.4	0.2	Iris-setosa
2	3	4.7	3.2	1.3	0.2	Iris-setosa
3	4	4.6	3.1	1.5	0.2	Iris-setosa
4	5	5.0	3.6	1.4	0.2	Iris-setosa

```
#FOR PRINTING LAST 5 DATAS
df.tail()
```

	Id	SepallengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	Species
145	146	6.7	3.0	5.2	2.3	Iris-virginica
146	147	6.3	2.5	5.0	1.9	Iris-virginica
147	148	6.5	3.0	5.2	2.0	Iris-virginica

```
df.info
```

```
<bound method DataFrame.info of
0      1      5.1      3.5      1.4      0.2
1      2      4.9      3.0      1.4      0.2
2      3      4.7      3.2      1.3      0.2
3      4      4.6      3.1      1.5      0.2
4      5      5.0      3.6      1.4      0.2
..    ...    ...    ...    ...    ...
145    146     6.7     3.0     5.2     2.3
146    147     6.3     2.5     5.0     1.9
147    148     6.5     3.0     5.2     2.0
148    149     6.2     3.4     5.4     2.3
149    150     5.9     3.0     5.1     1.8
```

```
Species
0      Iris-setosa
1      Iris-setosa
2      Iris-setosa
3      Iris-setosa
4      Iris-setosa
..    ...
145    Iris-virginica
146    Iris-virginica
147    Iris-virginica
148    Iris-virginica
149    Iris-virginica
```

```
[150 rows x 6 columns]>
```

▼ FOR FINDING MISSING VALUES IN DATASET

```
df.isna().sum()
```

```
Id      0
SepallengthCm  0
SepalWidthCm  0
PetalLengthCm  0
PetalWidthCm  0
Species      0
dtype: int64
```

▼ FOR DROPPING THE UNWANTED COLUMNS

```
df1=df.drop(['Id'],axis=1)
df1
```

	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	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

▼ SEPARATING X AND Y VARIABLES

```
x=df1.iloc[:, :-1].values
```

```
x
```

```
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],
       [5. , 3.6, 1.4, 0.2],
       [5.4, 3.9, 1.7, 0.4],
       [4.6, 3.4, 1.4, 0.3],
       [5. , 3.4, 1.5, 0.2],
       [4.4, 2.9, 1.4, 0.2],
       [4.9, 3.1, 1.5, 0.1],
       [5.4, 3.7, 1.5, 0.2],
       [4.8, 3.4, 1.6, 0.2],
       [4.8, 3. , 1.4, 0.1],
       [4.3, 3. , 1.1, 0.1],
       [5.8, 4. , 1.2, 0.2],
       [5.7, 4.4, 1.5, 0.4],
       [5.4, 3.9, 1.3, 0.4],
       [5.1, 3.5, 1.4, 0.3],
       [5.7, 3.8, 1.7, 0.3],
       [5.1, 3.8, 1.5, 0.3],
       [5.4, 3.4, 1.7, 0.2],
       [5.1, 3.7, 1.5, 0.4],
       [4.6, 3.6, 1. , 0.2],
       [5.1, 3.3, 1.7, 0.5],
       [4.8, 3.4, 1.9, 0.2],
       [5. , 3. , 1.6, 0.2],
       [5. , 3.4, 1.6, 0.4],
       [5.2, 3.5, 1.5, 0.2],
       [5.2, 3.4, 1.4, 0.2],
```

Age Group	Percentage
18-24	85
25-34	75
35-44	65
45-54	55
55-64	45
65-74	35
75-84	25
85+	10

 y

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```
'Iris-versicolor', 'Iris-versicolor', 'Iris-versicolor',
'Iris-versicolor', 'Iris-versicolor', 'Iris-versicolor',
'Iris-virginica', 'Iris-virginica', 'Iris-virginica',
'Iris-virginica', 'Iris-virginica', 'Iris-virginica',
'Iris-virginica', 'Iris-virginica', 'Iris-virginica',
'Iris-virginica', 'Iris-virginica', 'Iris-virginica',
'Iris-virginica', 'Iris-virginica', 'Iris-virginica',
'Iris-virginica', 'Iris-virginica', 'Iris-virginica',
'Iris-virginica', 'Iris-virginica', 'Iris-virginica',
'Iris-virginica', 'Iris-virginica', 'Iris-virginica',
'Iris-virginica', 'Iris-virginica', 'Iris-virginica',
'Iris-virginica', 'Iris-virginica', 'Iris-virginica',
'Iris-virginica', 'Iris-virginica', 'Iris-virginica',
'Iris-virginica', 'Iris-virginica', 'Iris-virginica',
'Iris-virginica', 'Iris-virginica', 'Iris-virginica',
'Iris-virginica', 'Iris-virginica', 'Iris-virginica',
'Iris-virginica', 'Iris-virginica', 'Iris-virginica',
'Iris-virginica', 'Iris-virginica'], dtype=object)
```

```
x.ndim
```

```
2
```

```
y.ndim
```

```
1
```

▼ SPLITTING DATA INTO TRAINING AND TESTING DATA

```
from sklearn.model_selection import train_test_split
x_train,x_test,y_train,y_test=train_test_split(x,y,test_size=0.30)
x_train
```

```
array([[4.8, 3. , 1.4, 0.1],
       [7. , 3.2, 4.7, 1.4],
       [6.7, 3.1, 5.6, 2.4],
       [4.9, 2.5, 4.5, 1.7],
       [4.8, 3. , 1.4, 0.3],
       [5.8, 2.7, 5.1, 1.9],
       [5. , 3.6, 1.4, 0.2],
       [5.7, 2.5, 5. , 2. ],
       [6.4, 3.2, 5.3, 2.3],
       [6.1, 3. , 4.6, 1.4],
       [6.1, 3. , 4.9, 1.8],
       [5.9, 3.2, 4.8, 1.8],
       [7.2, 3. , 5.8, 1.6],
       [6.2, 3.4, 5.4, 2.3],
       [6. , 2.9, 4.5, 1.5],
       [5. , 3.5, 1.6, 0.6],
       [5.2, 3.5, 1.5, 0.2],
       [7.9, 3.8, 6.4, 2. ],
       [4.8, 3.1, 1.6, 0.2],
       [6.7, 2.5, 5.8, 1.8],
       [6.4, 2.9, 4.3, 1.3],
```

```
[6. , 2.7, 5.1, 1.6],
[6.5, 3. , 5.5, 1.8],
[7.2, 3.6, 6.1, 2.5],
[5.6, 2.7, 4.2, 1.3],
[7.6, 3. , 6.6, 2.1],
[5. , 3.4, 1.6, 0.4],
[6.7, 3.3, 5.7, 2.1],
[6.3, 2.7, 4.9, 1.8],
[5.1, 3.4, 1.5, 0.2],
[6.9, 3.1, 5.4, 2.1],
[5.5, 2.5, 4. , 1.3],
[5.4, 3.9, 1.3, 0.4],
[5.6, 2.8, 4.9, 2. ],
[4.6, 3.1, 1.5, 0.2],
[5.4, 3.4, 1.7, 0.2],
[5.7, 2.8, 4.5, 1.3],
[5.1, 3.8, 1.5, 0.3],
[4.4, 3.2, 1.3, 0.2],
[4.8, 3.4, 1.9, 0.2],
[6. , 3. , 4.8, 1.8],
[5.2, 3.4, 1.4, 0.2],
[4.6, 3.6, 1. , 0.2],
[5.7, 4.4, 1.5, 0.4],
[5.1, 2.5, 3. , 1.1],
[5.1, 3.5, 1.4, 0.2],
[5.4, 3.4, 1.5, 0.4],
[6.5, 3.2, 5.1, 2. ],
[6.6, 2.9, 4.6, 1.3],
[6.3, 2.5, 4.9, 1.5],
[5.8, 4. , 1.2, 0.2],
[6.3, 3.4, 5.6, 2.4],
[6.4, 2.8, 5.6, 2.2],
[6. , 3.4, 4.5, 1.6],
[5.4, 3.9, 1.7, 0.4],
[7.1, 3. , 5.9, 2.1],
[5.2, 2.7, 3.9, 1.4],
[5. , 2. , 3. , 1. ]]
```

x_test

```
array([[7.3, 2.9, 6.3, 1.8],
[6.4, 3.2, 4.5, 1.5],
[5.1, 3.7, 1.5, 0.4],
[5.7, 2.8, 4.1, 1.3],
[5. , 2. , 3.5, 1. ],
[6.7, 3. , 5.2, 2.3],
[6.5, 2.8, 4.6, 1.5],
[7.7, 2.8, 6.7, 2. ],
[6.6, 3. , 4.4, 1.4],
[5. , 3.4, 1.5, 0.2],
[5.7, 2.6, 3.5, 1. ],
[6. , 2.2, 5. , 1.5],
[5.8, 2.6, 4. , 1.2],
[6.2, 2.9, 4.3, 1.3],
[7.7, 3.8, 6.7, 2.2],
[4.4, 2.9, 1.4, 0.2],
[6.8, 3. , 5.5, 2.1],
[5.7, 2.9, 4.2, 1.3],
[7.4, 2.8, 6.1, 1.9],
[6.4, 2.8, 5.6, 2.1],
[5.2, 4.1, 1.5, 0.1],
```

```
[5.5, 2.4, 3.7, 1. ],
[6.9, 3.1, 4.9, 1.5],
[6.1, 2.8, 4. , 1.3],
[5.8, 2.8, 5.1, 2.4],
[6.4, 3.1, 5.5, 1.8],
[6.8, 2.8, 4.8, 1.4],
[6.1, 2.9, 4.7, 1.4],
[4.9, 2.4, 3.3, 1. ],
[6.3, 2.9, 5.6, 1.8],
[6.3, 2.3, 4.4, 1.3],
[5.7, 3.8, 1.7, 0.3],
[4.7, 3.2, 1.3, 0.2],
[5. , 3. , 1.6, 0.2],
[5.6, 3. , 4.1, 1.3],
[5.5, 4.2, 1.4, 0.2],
[5.8, 2.7, 5.1, 1.9],
[6.4, 2.7, 5.3, 1.9],
[5. , 3.2, 1.2, 0.2],
[5.5, 2.6, 4.4, 1.2],
[4.8, 3.4, 1.6, 0.2],
[4.5, 2.3, 1.3, 0.3],
[4.9, 3. , 1.4, 0.2],
[5.4, 3. , 4.5, 1.5],
[6.3, 2.5, 5. , 1.9]]])
```

y_train

```
array(['Iris-setosa', 'Iris-versicolor', 'Iris-virginica',
      'Iris-virginica', 'Iris-setosa', 'Iris-virginica', 'Iris-setosa',
      'Iris-virginica', 'Iris-virginica', 'Iris-versicolor',
      'Iris-virginica', 'Iris-versicolor', 'Iris-virginica',
      'Iris-virginica', 'Iris-versicolor', 'Iris-setosa', 'Iris-setosa',
      'Iris-virginica', 'Iris-setosa', 'Iris-virginica',
      'Iris-versicolor', 'Iris-versicolor', 'Iris-virginica',
      'Iris-virginica', 'Iris-versicolor', 'Iris-virginica',
      'Iris-setosa', 'Iris-virginica', 'Iris-virginica', 'Iris-setosa',
      'Iris-virginica', 'Iris-versicolor', 'Iris-setosa',
      'Iris-virginica', 'Iris-setosa', 'Iris-setosa', 'Iris-versicolor',
      'Iris-setosa', 'Iris-setosa', 'Iris-setosa', 'Iris-virginica',
      'Iris-setosa', 'Iris-setosa', 'Iris-setosa', 'Iris-versicolor',
      'Iris-setosa', 'Iris-setosa', 'Iris-virginica', 'Iris-versicolor',
      'Iris-versicolor', 'Iris-setosa', 'Iris-virginica',
      'Iris-virginica', 'Iris-versicolor', 'Iris-setosa',
      'Iris-virginica', 'Iris-versicolor', 'Iris-versicolor',
      'Iris-virginica', 'Iris-virginica', 'Iris-versicolor',
      'Iris-virginica', 'Iris-setosa', 'Iris-versicolor',
      'Iris-virginica', 'Iris-setosa', 'Iris-versicolor',
      'Iris-virginica', 'Iris-setosa', 'Iris-versicolor',
      'Iris-versicolor', 'Iris-setosa', 'Iris-virginica',
      'Iris-versicolor', 'Iris-virginica', 'Iris-setosa', 'Iris-setosa',
      'Iris-versicolor', 'Iris-versicolor', 'Iris-virginica',
      'Iris-setosa', 'Iris-setosa', 'Iris-versicolor', 'Iris-setosa',
      'Iris-versicolor', 'Iris-setosa', 'Iris-setosa', 'Iris-setosa',
      'Iris-virginica', 'Iris-setosa', 'Iris-setosa', 'Iris-setosa',
      'Iris-virginica', 'Iris-virginica', 'Iris-versicolor',
      'Iris-virginica'], dtype=object)
```

y_test

```
array(['Iris-virginica', 'Iris-versicolor', 'Iris-setosa',
      'Iris-versicolor', 'Iris-versicolor', 'Iris-virginica',
      'Iris-versicolor', 'Iris-virginica', 'Iris-versicolor',
      'Iris-setosa', 'Iris-versicolor', 'Iris-virginica',
      'Iris-versicolor', 'Iris-versicolor', 'Iris-virginica',
      'Iris-setosa', 'Iris-virginica', 'Iris-versicolor',
      'Iris-virginica', 'Iris-virginica', 'Iris-setosa',
      'Iris-versicolor', 'Iris-versicolor', 'Iris-versicolor',
      'Iris-virginica', 'Iris-virginica', 'Iris-versicolor',
      'Iris-versicolor', 'Iris-versicolor', 'Iris-virginica',
      'Iris-versicolor', 'Iris-setosa', 'Iris-setosa', 'Iris-setosa',
      'Iris-versicolor', 'Iris-setosa', 'Iris-virginica',
      'Iris-virginica', 'Iris-setosa', 'Iris-versicolor', 'Iris-setosa',
      'Iris-setosa', 'Iris-setosa', 'Iris-versicolor', 'Iris-virginica'],
      dtype=object)
```

▼ NORMALIZATION OF DATA USING STANDARD SCALER

```
from sklearn.preprocessing import StandardScaler
scaler=StandardScaler()
scaler.fit(x_train)
x_train=scaler.fit_transform(x_train)
x_test=scaler.fit_transform(x_test)
x_train
```

```
array([[ -1.23697355, -0.24961109, -1.2772593 , -1.38122021],
       [  1.43350206,  0.23574381,  0.56065743,  0.26395046],
       [  1.0693463 , -0.00693364,  1.06190745,  1.52946636],
       [ -1.1155883 , -1.46299832,  0.44926853,  0.64360523],
       [ -1.23697355, -0.24961109, -1.2772593 , -1.12811703],
       [ -0.023121 , -0.97764343,  0.78343521,  0.89670841],
       [ -0.99420304,  1.20645359, -1.2772593 , -1.25466862],
       [ -0.14450626, -1.46299832,  0.72774077,  1.02326 ],
       [  0.70519053,  0.23574381,  0.89482411,  1.40291477],
       [  0.34103477, -0.24961109,  0.50496298,  0.26395046],
       [  0.34103477, -0.24961109,  0.67204632,  0.77015682],
       [  0.09826425,  0.23574381,  0.61635187,  0.77015682],
       [  1.67627257, -0.24961109,  1.17329634,  0.51705364],
       [  0.46242002,  0.7210987 ,  0.95051855,  1.40291477],
       [  0.21964951, -0.49228853,  0.44926853,  0.39050205],
       [ -0.99420304,  0.96377615, -1.16587041, -0.74846226],
       [ -0.75143253,  0.96377615, -1.22156486, -1.25466862],
       [  2.52596936,  1.69180849,  1.50746302,  1.02326 ],
       [ -1.23697355, -0.00693364, -1.16587041, -1.25466862],
       [  1.0693463 , -1.46299832,  1.17329634,  0.77015682],
       [  0.70519053, -0.49228853,  0.33787964,  0.13739887],
       [  0.21964951, -0.97764343,  0.78343521,  0.51705364],
       [  0.82657579, -0.24961109,  1.006213 ,  0.77015682],
       [  1.67627257,  1.20645359,  1.34037968,  1.65601795],
       [ -0.26589151, -0.97764343,  0.2821852 ,  0.13739887],
       [  2.1618136 , -0.24961109,  1.61885191,  1.14981159],
       [ -0.99420304,  0.7210987 , -1.16587041, -1.00156544],
       [  1.0693463 ,  0.47842125,  1.11760189,  1.14981159],
       [  0.58380528, -0.97764343,  0.67204632,  0.77015682],
```



```
[ -0.87281779,  0.7210987, -1.22156486, -1.25466862],
[  1.31211681, -0.00693364,  0.95051855,  1.14981159],
[ -0.38727677, -1.46299832,  0.1707963,  0.13739887],
[ -0.50866202,  1.93448593, -1.33295375, -1.00156544],
[ -0.26589151, -0.73496598,  0.67204632,  1.02326   ],
[ -1.47974407, -0.00693364, -1.22156486, -1.25466862],
[ -0.50866202,  0.7210987, -1.11017597, -1.25466862],
[ -0.14450626, -0.73496598,  0.44926853,  0.13739887],
[ -0.87281779,  1.69180849, -1.22156486, -1.12811703],
[ -1.72251458,  0.23574381, -1.33295375, -1.25466862],
[ -1.23697355,  0.7210987, -0.99878707, -1.25466862],
[  0.21964951, -0.24961109,  0.61635187,  0.77015682],
[ -0.75143253,  0.7210987, -1.2772593, -1.25466862],
[ -1.47974407,  1.20645359, -1.50003709, -1.25466862],
[ -0.14450626,  3.14787317, -1.22156486, -1.00156544],
[ -0.87281779, -1.46299832, -0.38614816, -0.11570431],
[ -0.87281779,  0.96377615, -1.2772593, -1.25466862],
[ -0.50866202,  0.7210987, -1.22156486, -1.00156544],
[  0.82657579,  0.23574381,  0.78343521,  1.02326   ],
[  0.94796104, -0.49228853,  0.50496298,  0.13739887],
[  0.58380528, -1.46299832,  0.67204632,  0.39050205],
[ -0.023121,   2.17716338, -1.3886482, -1.25466862],
[  0.58380528,  0.7210987,  1.06190745,  1.52946636],
[  0.70519053, -0.73496598,  1.06190745,  1.27636318],
[  0.21964951,  0.7210987,  0.44926853,  0.51705364],
[ -0.50866202,  1.93448593, -1.11017597, -1.00156544],
[  1.55488732, -0.24961109,  1.22899078,  1.14981159],
[ -0.75143253, -0.97764343,  0.11510186,  0.26395046],
[ -0.26589151, -0.49228853, -0.05198148,  0.13739887].
```

x_test

```
array([[ 1.69498206, -0.08776208,  1.43988855,  0.85151179],
[  0.60535073,  0.57045351,  0.35494927,  0.41442399],
[  0.96856117,  1.66747948, -1.45328286, -1.18823128],
[ -0.24214029, -0.30716727,  0.11385165,  0.12303212],
[ -1.08963132, -2.06240883, -0.24779477, -0.31405568],
[  0.96856117,  0.13164312,  0.7768701,  1.57999146],
[  0.72642088, -0.30716727,  0.41522367,  0.41442399],
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[  0.24214029, -0.08776208,  0.47549808,  0.26872806],
```

```
[ -1.21070147, -1.18478805, -0.36834358, -0.31405568],
[ 0.48428059, -0.08776208, 1.01796772, 0.85151179],
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[ -0.24214029, 1.88688467, -1.33273405, -1.33392722],
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[ -0.12107015, -0.52657247, 0.7165957, 0.99720772],
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[ -1.21070147, 0.13164312, -1.51355727, -1.47962315],
[ -0.60535073, 0.13164312, 0.35494927, 0.41442399],
[ 0.48428059, -0.96538285, 0.65632129, 0.99720772]]])
```

▼ CREATION OF NAIVE BAYES MODEL

```
from sklearn.naive_bayes import GaussianNB
model=GaussianNB()
model.fit(x_train,y_train)
y_pred=model.predict(x_test)
y_pred

array(['Iris-virginica', 'Iris-versicolor', 'Iris-setosa',
       'Iris-versicolor', 'Iris-versicolor', 'Iris-virginica',
       'Iris-versicolor', 'Iris-virginica', 'Iris-versicolor',
       'Iris-setosa', 'Iris-versicolor', 'Iris-versicolor',
       'Iris-versicolor', 'Iris-versicolor', 'Iris-virginica',
       'Iris-setosa', 'Iris-virginica', 'Iris-versicolor',
       'Iris-virginica', 'Iris-virginica', 'Iris-setosa',
       'Iris-versicolor', 'Iris-versicolor', 'Iris-versicolor',
       'Iris-virginica', 'Iris-virginica', 'Iris-versicolor',
       'Iris-versicolor', 'Iris-versicolor', 'Iris-virginica',
       'Iris-versicolor', 'Iris-setosa', 'Iris-setosa', 'Iris-setosa',
       'Iris-versicolor', 'Iris-setosa', 'Iris-virginica',
       'Iris-virginica', 'Iris-setosa', 'Iris-versicolor', 'Iris-setosa',
       'Iris-setosa', 'Iris-setosa', 'Iris-versicolor', 'Iris-virginica'],
      dtype='<U15')
```

y_test

```
array(['Iris-virginica', 'Iris-versicolor', 'Iris-setosa',
       'Iris-versicolor', 'Iris-versicolor', 'Iris-virginica',
       'Iris-versicolor', 'Iris-virginica', 'Iris-versicolor',
       'Iris-setosa', 'Iris-versicolor', 'Iris-virginica',
       'Iris-versicolor', 'Iris-versicolor', 'Iris-virginica',
       'Iris-setosa', 'Iris-virginica', 'Iris-versicolor',
       'Iris-virginica', 'Iris-virginica', 'Iris-setosa',
       'Iris-versicolor', 'Iris-versicolor', 'Iris-versicolor',
       'Iris-virginica', 'Iris-virginica', 'Iris-versicolor',
       'Iris-versicolor', 'Iris-versicolor', 'Iris-virginica',
       'Iris-versicolor', 'Iris-setosa', 'Iris-setosa', 'Iris-setosa',
       'Iris-versicolor', 'Iris-setosa', 'Iris-virginica',
```

```
'Iris-virginica', 'Iris-setosa', 'Iris-versicolor', 'Iris-setosa',  
'Iris-setosa', 'Iris-setosa', 'Iris-versicolor', 'Iris-virginica'],  
dtype=object)
```

▼ PERFORMANCE EVALUATION

```
from sklearn.metrics import confusion_matrix, accuracy_score  
result=confusion_matrix(y_test,y_pred)  
result
```

```
array([[12,  0,  0],  
       [ 0, 19,  0],  
       [ 0,  1, 13]])
```

```
score=accuracy_score(y_test,y_pred)  
score
```

```
0.9777777777777777
```

✓ 0s completed at 10:12 PM

