

In [1]:

```
import pandas as pd
```

In [3]:

```
from sklearn import metrics
```

In [4]:

```
df=pd.get_dummies(data=df['Species'])  
df
```

Out[4]:

|     | Iris-setosa | Iris-versicolor | Iris-virginica |
|-----|-------------|-----------------|----------------|
| 0   | 1           | 0               | 0              |
| 1   | 1           | 0               | 0              |
| 2   | 1           | 0               | 0              |
| 3   | 1           | 0               | 0              |
| 4   | 1           | 0               | 0              |
| ... | ...         | ...             | ...            |
| 145 | 0           | 0               | 1              |
| 146 | 0           | 0               | 1              |
| 147 | 0           | 0               | 1              |
| 148 | 0           | 0               | 1              |
| 149 | 0           | 0               | 1              |

150 rows × 3 columns

In [5]:

```
df=pd.read_csv("//home//ubuntu//Downloads//Iris.csv")
df
```

Out[5]:

|     | 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

In [10]:

```
from sklearn.preprocessing import LabelEncoder
label_encoder=LabelEncoder()
df['Species']=label_encoder.fit_transform(df['Species'])
df
```

Out[10]:

|     | Id  | SepalLengthCm | SepalWidthCm | PetalLengthCm | PetalWidthCm | Species |
|-----|-----|---------------|--------------|---------------|--------------|---------|
| 0   | 1   | 5.1           | 3.5          | 1.4           | 0.2          | 0       |
| 1   | 2   | 4.9           | 3.0          | 1.4           | 0.2          | 0       |
| 2   | 3   | 4.7           | 3.2          | 1.3           | 0.2          | 0       |
| 3   | 4   | 4.6           | 3.1          | 1.5           | 0.2          | 0       |
| 4   | 5   | 5.0           | 3.6          | 1.4           | 0.2          | 0       |
| ... | ... | ...           | ...          | ...           | ...          | ...     |
| 145 | 146 | 6.7           | 3.0          | 5.2           | 2.3          | 2       |
| 146 | 147 | 6.3           | 2.5          | 5.0           | 1.9          | 2       |
| 147 | 148 | 6.5           | 3.0          | 5.2           | 2.0          | 2       |
| 148 | 149 | 6.2           | 3.4          | 5.4           | 2.3          | 2       |
| 149 | 150 | 5.9           | 3.0          | 5.1           | 1.8          | 2       |

150 rows × 6 columns

In [14]:

```
from sklearn.preprocessing import OneHotEncoder
ohe_encoder=OneHotEncoder()
df['Species']=ohe_encoder.fit_transform(df[['Species']]).toarray()
df
```

Out[14]:

|            | <b>Id</b> | <b>SepalLengthCm</b> | <b>SepalWidthCm</b> | <b>PetalLengthCm</b> | <b>PetalWidthCm</b> | <b>Species</b> |
|------------|-----------|----------------------|---------------------|----------------------|---------------------|----------------|
| <b>0</b>   | 1         | 5.1                  | 3.5                 | 1.4                  | 0.2                 | 1.0            |
| <b>1</b>   | 2         | 4.9                  | 3.0                 | 1.4                  | 0.2                 | 1.0            |
| <b>2</b>   | 3         | 4.7                  | 3.2                 | 1.3                  | 0.2                 | 1.0            |
| <b>3</b>   | 4         | 4.6                  | 3.1                 | 1.5                  | 0.2                 | 1.0            |
| <b>4</b>   | 5         | 5.0                  | 3.6                 | 1.4                  | 0.2                 | 1.0            |
| ...        | ...       | ...                  | ...                 | ...                  | ...                 | ...            |
| <b>145</b> | 146       | 6.7                  | 3.0                 | 5.2                  | 2.3                 | 0.0            |
| <b>146</b> | 147       | 6.3                  | 2.5                 | 5.0                  | 1.9                 | 0.0            |
| <b>147</b> | 148       | 6.5                  | 3.0                 | 5.2                  | 2.0                 | 0.0            |
| <b>148</b> | 149       | 6.2                  | 3.4                 | 5.4                  | 2.3                 | 0.0            |
| <b>149</b> | 150       | 5.9                  | 3.0                 | 5.1                  | 1.8                 | 0.0            |

150 rows × 6 columns

In [ ]: