Data Preprocessing

Importing the libraries

```
import numpy as np
import matplotlib.pyplot as plt
import pandas as pd
```

Importing Dataset

```
data_set=pd.read_csv("coviddata.csv")
x=data_set.iloc[:,:-1].values
y=data_set.iloc[:,-1].values
```

```
print(x)
```

```
[[10.0 'Normal' 'no' 'no' 97.0]
 [12.0 'Normal' 'no' 'no' 97.0]
 [15.0 'Normal' 'no' 'no' 94.0]
 [10.0 'Normal' 'no' 'no' 97.0]
 [13.0 'Moderate' 'no' 'no' 94.0]
 [12.0 'Moderate' 'no' 'no' 97.0]
 [13.0 'Moderate' 'no' 'no' 93.0]
 [15.0 'Moderate' 'no' 'no' 92.0]
 [18.0 'Moderate' 'no' 'no' 66.0]
 [19.0 'Normal' 'no' 'no' 92.0]
 [20.0 'Normal' 'no' 'no' 93.0]
 [17.0 'Normal' 'no' 'no' 93.0]
 [16.0 'Normal' 'no' 'no' 92.0]
 [18.0 'Normal' 'no' 'no' 93.0]
 [20.0 'Normal' 'no' 'no' 92.0]
 [25.0 'Moderate' 'no' 'no' 93.0]
 [24.0 'Moderate' 'no' 'no' 92.0]
 [26.0 'High' 'no' 'no' 94.0]
 [28.0 'Normal' 'no' 'no' 99.0]
 [29.0 'Normal' 'no' 'no' 93.0]
 [30.0 'Moderate' 'no' 'no' 62.0]
 [19.0 'Normal' 'no' 'no' 89.0]
 [25.0 'Normal' 'no' 'yes' 86.0]
 [26.0 'Normal' 'no' 'no' nan]
 [28.0 'Normal' 'no' 'no' 89.0]
 [30.0 'Moderate' 'yes' 'no' 86.0]
 [35.0 'Moderate' 'no' 'no' 89.0]
 [32.0 'Moderate' 'no' 'yes' 84.0]
 [nan 'Moderate' 'yes' 'no' 90.0]
 [32.0 'Moderate' 'no' 'no' 89.0]
 [35.0 'Moderate' 'no' 'yes' 92.0]
 [38.0 'High' 'no' 'no' 75.0]
 [40.0 'Moderate' 'no' 'yes' 90.0]
 [46.0 'High' 'yes' 'no' 91.0]
 [48.0 'Moderate' 'no' 'yes' 93.0]
 [42.0 'High' 'no' 'no' 92.0]
 [40.0 'High' 'no' 'no' 92.0]
 [49.0 'Moderate' 'no' 'no' 80.0]
 [50.0 'High' 'yes' 'yes' 77.0]
 [36.0 'High' 'yes' 'no' 90.0]
 [52.0 'High' 'yes' 'yes' 80.0]
 [56.0 'High' 'yes' 'yes' 77.0]
 [58.0 'High' 'no' 'no' 70.0]
 [59.0 'High' 'no' 'yes' 69.0]
 [60.0 'High' 'yes' 'yes' 68.0]
 [53.0 'High' 'yes' 'no' 55.0]
 [54.0 'High' 'yes' 'yes' 70.0]
 [62.0 'High' 'yes' 'yes' 68.0]
 [63.0 'High' 'yes' 'yes' 66.0]
 [68.0 'High' 'yes' 'no' 67.0]
 [69.0 'High' 'no' 'yes' 53.0]
 [64.0 'High' 'yes' 'yes' 73.0]
 [61.0 'High' 'yes' 'yes' 76.0]
 [70.0 'Normal' 'no' 'yes' 88.0]
 [59.0 'High' 'yes' 'no' 68.0]
 [62.0 'High' 'yes' 'yes' 69.0]
```

```
[78.0 'High' 'yes' 'yes' 71.0]
[74.0 'High' 'yes' 'yes' 75.0]
```

```
print(y)
```

```
['No' 'No' 'No' 'No' 'No' 'No' 'No' 'No' 'Yes' 'No' 'No' 'No' 'No' 'No'
 'No' 'No' 'No' 'No' 'No' 'No' 'Yes' 'No' 'No' 'No' 'No' 'No' 'No' 'No'
 'No' 'No' 'No' 'Yes' 'No' 'No' 'No' 'No' 'No' 'Yes' 'Yes' 'No' 'Yes'
 'Yes' 'Yes' 'Yes' 'Yes' 'Yes' 'Yes' 'Yes' 'Yes' 'Yes' 'Yes' 'Yes' 'Yes'
 'No' 'Yes' 'Yes' 'Yes' 'Yes' 'Yes' 'Yes' 'No' 'Yes' 'Yes' 'Yes' 'Yes'
 'Yes' 'No' 'Yes' 'Yes' 'Yes']
```

Handling Missing Data

```
from sklearn.impute import SimpleImputer
imputer = SimpleImputer(missing_values = np.nan, strategy = 'mean')

imputer.fit(x[:, 0:1])
x[: , 0:1] = imputer.transform(x[:, 0:1])
```

```
print(x)
```

```
[0.0 0.0 1.0 16.0 'no' 'no' 92.0]
[0.0 0.0 1.0 18.0 'no' 'no' 93.0]
[0.0 0.0 1.0 20.0 'no' 'no' 92.0]
[0.0 1.0 0.0 25.0 'no' 'no' 93.0]
[0.0 1.0 0.0 24.0 'no' 'no' 92.0]
[1.0 0.0 0.0 26.0 'no' 'no' 94.0]
[0.0 0.0 1.0 28.0 'no' 'no' 99.0]
[0.0 0.0 1.0 29.0 'no' 'no' 93.0]
[0.0 1.0 0.0 30.0 'no' 'no' 62.0]
[0.0 0.0 1.0 19.0 'no' 'no' 89.0]
[0.0 0.0 1.0 25.0 'no' 'yes' 86.0]
[0.0 0.0 1.0 26.0 'no' 'no' nan]
[0.0 0.0 1.0 28.0 'no' 'no' 89.0]
[0.0 1.0 0.0 30.0 'yes' 'no' 86.0]
[0.0 1.0 0.0 35.0 'no' 'no' 89.0]
[0.0 1.0 0.0 32.0 'no' 'yes' 84.0]
[0.0 1.0 0.0 45.130434782608695 'yes' 'no' 90.0]
[0.0 1.0 0.0 32.0 'no' 'no' 89.0]
[0.0 1.0 0.0 35.0 'no' 'yes' 92.0]
[1.0 0.0 0.0 38.0 'no' 'no' 75.0]
[0.0 1.0 0.0 40.0 'no' 'yes' 90.0]
[1.0 0.0 0.0 46.0 'yes' 'no' 91.0]
[0.0 1.0 0.0 48.0 'no' 'yes' 93.0]
[1.0 0.0 0.0 42.0 'no' 'no' 92.0]
[1.0 0.0 0.0 40.0 'no' 'no' 92.0]
[0.0 1.0 0.0 49.0 'no' 'no' 80.0]
[1.0 0.0 0.0 50.0 'yes' 'yes' 77.0]
[1.0 0.0 0.0 36.0 'yes' 'no' 90.0]
[1.0 0.0 0.0 52.0 'yes' 'yes' 80.0]
[1.0 0.0 0.0 56.0 'yes' 'yes' 77.0]
[1.0 0.0 0.0 58.0 'no' 'no' 70.0]
[1.0 0.0 0.0 59.0 'no' 'yes' 69.0]
[1.0 0.0 0.0 60.0 'yes' 'yes' 68.0]
[1.0 0.0 0.0 53.0 'yes' 'no' 55.0]
[1.0 0.0 0.0 54.0 'yes' 'yes' 70.0]
[1.0 0.0 0.0 62.0 'yes' 'yes' 68.0]
[1.0 0.0 0.0 63.0 'yes' 'yes' 66.0]
[1.0 0.0 0.0 68.0 'yes' 'no' 67.0]
[1.0 0.0 0.0 69.0 'no' 'yes' 53.0]
[1.0 0.0 0.0 64.0 'yes' 'yes' 73.0]
[1.0 0.0 0.0 61.0 'yes' 'yes' 76.0]
[0.0 0.0 1.0 70.0 'no' 'yes' 88.0]
[1.0 0.0 0.0 59.0 'yes' 'no' 68.0]
[1.0 0.0 0.0 62.0 'yes' 'yes' 69.0]
```

```
[1.0 0.0 0.0 81.0 'yes' 'yes' 75.0]
[1.0 0.0 0.0 76.0 'yes' 'yes' 80.0]]
```

Encoding Categorical Data

Encoding independent variables

```
from sklearn.compose import ColumnTransformer
from sklearn.preprocessing import OneHotEncoder


ct = ColumnTransformer(transformers=[('encoder',OneHotEncoder(), [1])], remainder= 'passthrough')
x = np.array(ct.fit_transform(x))


print(x)
```

```
[0.0 0.0 1.0 16.0 'no' 'no' 92.0]
[0.0 0.0 1.0 18.0 'no' 'no' 93.0]
[0.0 0.0 1.0 20.0 'no' 'no' 92.0]
[0.0 1.0 0.0 25.0 'no' 'no' 93.0]
[0.0 1.0 0.0 24.0 'no' 'no' 92.0]
[1.0 0.0 0.0 26.0 'no' 'no' 94.0]
[0.0 0.0 1.0 28.0 'no' 'no' 99.0]
[0.0 0.0 1.0 29.0 'no' 'no' 93.0]
[0.0 1.0 0.0 30.0 'no' 'no' 62.0]
[0.0 0.0 1.0 19.0 'no' 'no' 89.0]
[0.0 0.0 1.0 25.0 'no' 'yes' 86.0]
[0.0 0.0 1.0 26.0 'no' 'no' nan]
[0.0 0.0 1.0 28.0 'no' 'no' 89.0]
[0.0 1.0 0.0 30.0 'yes' 'no' 86.0]
[0.0 1.0 0.0 35.0 'no' 'no' 89.0]
[0.0 1.0 0.0 32.0 'no' 'yes' 84.0]
[0.0 1.0 0.0 45.130434782608695 'yes' 'no' 90.0]
[0.0 1.0 0.0 32.0 'no' 'no' 89.0]
[0.0 1.0 0.0 35.0 'no' 'yes' 92.0]
[1.0 0.0 0.0 38.0 'no' 'no' 75.0]
[0.0 1.0 0.0 40.0 'no' 'yes' 90.0]
[1.0 0.0 0.0 46.0 'yes' 'no' 91.0]
[0.0 1.0 0.0 48.0 'no' 'yes' 93.0]
[1.0 0.0 0.0 42.0 'no' 'no' 92.0]
[1.0 0.0 0.0 40.0 'no' 'no' 92.0]
[0.0 1.0 0.0 49.0 'no' 'no' 80.0]
[1.0 0.0 0.0 50.0 'yes' 'yes' 77.0]
[1.0 0.0 0.0 36.0 'yes' 'no' 90.0]
[1.0 0.0 0.0 52.0 'yes' 'yes' 80.0]
[1.0 0.0 0.0 56.0 'yes' 'yes' 77.0]
[1.0 0.0 0.0 58.0 'no' 'no' 70.0]
[1.0 0.0 0.0 59.0 'no' 'yes' 69.0]
[1.0 0.0 0.0 60.0 'yes' 'yes' 68.0]
[1.0 0.0 0.0 53.0 'yes' 'no' 55.0]
[1.0 0.0 0.0 54.0 'yes' 'yes' 70.0]
[1.0 0.0 0.0 62.0 'yes' 'yes' 68.0]
[1.0 0.0 0.0 63.0 'yes' 'yes' 66.0]
[1.0 0.0 0.0 68.0 'yes' 'no' 67.0]
[1.0 0.0 0.0 69.0 'no' 'yes' 53.0]
[1.0 0.0 0.0 64.0 'yes' 'yes' 73.0]
[1.0 0.0 0.0 61.0 'yes' 'yes' 76.0]
[0.0 0.0 1.0 70.0 'no' 'yes' 88.0]
[1.0 0.0 0.0 59.0 'yes' 'no' 68.0]
[1.0 0.0 0.0 62.0 'yes' 'yes' 69.0]
[1.0 0.0 0.0 78.0 'yes' 'yes' 71.0]
[1.0 0.0 0.0 74.0 'yes' 'yes' 75.0]
[1.0 0.0 0.0 75.0 'no' 'yes' 72.0]
[1.0 0.0 0.0 56.0 'yes' 'no' 76.0]
[1.0 0.0 0.0 80.0 'no' 'yes' 92.0]
[1.0 0.0 0.0 82.0 'yes' 'yes' 73.0]
[1.0 0.0 0.0 86.0 'yes' 'yes' 71.0]
[1.0 0.0 0.0 90.0 'yes' 'yes' 67.0]
[1.0 0.0 0.0 84.0 'yes' 'yes' 75.0]
[1.0 0.0 0.0 86.0 'no' 'yes' 76.0]
[0.0 1.0 0.0 61.0 'no' 'yes' 90.0]
[1.0 0.0 0.0 94.0 'yes' 'yes' 64.0]
[1.0 0.0 0.0 81.0 'yes' 'yes' 75.0]
[1.0 0.0 0.0 76.0 'yes' 'yes' 80.0]]
```

Encoding dependent variables

```
from sklearn.preprocessing import LabelEncoder
le=LabelEncoder()
y=le.fit_transform(y)
```

```
print(y)
```

```
[0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0
 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 1 1 1 1 1 1 0 1 1 1 1 1 0 1 1 1]
```

Splitting data into Test set & Training Set

```
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,random_state=42)
```

```
print(x_train)
```

```
[[1.0 0.0 0.0 86.0 'yes' 'yes' 71.0]
 [0.0 1.0 0.0 35.0 'no' 'yes' 92.0]
 [1.0 0.0 0.0 75.0 'no' 'yes' 72.0]
 [1.0 0.0 0.0 42.0 'no' 'no' 92.0]
 [1.0 0.0 0.0 74.0 'yes' 'yes' 75.0]
 [1.0 0.0 0.0 62.0 'yes' 'yes' 68.0]
 [0.0 1.0 0.0 24.0 'no' 'no' 92.0]
 [0.0 1.0 0.0 48.0 'no' 'yes' 93.0]
 [1.0 0.0 0.0 58.0 'no' 'no' 70.0]
 [0.0 1.0 0.0 45.130434782608695 'yes' 'no' 90.0]
 [0.0 1.0 0.0 15.0 'no' 'no' 92.0]
 [0.0 0.0 1.0 70.0 'no' 'yes' 88.0]
 [1.0 0.0 0.0 52.0 'yes' 'yes' 80.0]
 [1.0 0.0 0.0 60.0 'yes' 'yes' 68.0]
 [1.0 0.0 0.0 54.0 'yes' 'yes' 70.0]
 [0.0 0.0 1.0 29.0 'no' 'no' 93.0]
 [1.0 0.0 0.0 78.0 'yes' 'yes' 71.0]
 [1.0 0.0 0.0 36.0 'yes' 'no' 90.0]
 [0.0 1.0 0.0 30.0 'yes' 'no' 86.0]
 [1.0 0.0 0.0 50.0 'yes' 'yes' 77.0]
 [0.0 0.0 1.0 18.0 'no' 'no' 93.0]
 [1.0 0.0 0.0 69.0 'no' 'yes' 53.0]
 [0.0 0.0 1.0 10.0 'no' 'no' 97.0]
 [1.0 0.0 0.0 26.0 'no' 'no' 94.0]
 [0.0 1.0 0.0 18.0 'no' 'no' 66.0]
 [1.0 0.0 0.0 62.0 'yes' 'yes' 69.0]
 [0.0 1.0 0.0 13.0 'no' 'no' 93.0]
 [1.0 0.0 0.0 40.0 'no' 'no' 92.0]
 [1.0 0.0 0.0 84.0 'yes' 'yes' 75.0]
 [1.0 0.0 0.0 76.0 'yes' 'yes' 80.0]
 [1.0 0.0 0.0 81.0 'yes' 'yes' 75.0]
 [0.0 1.0 0.0 25.0 'no' 'no' 93.0]
 [0.0 1.0 0.0 32.0 'no' 'yes' 84.0]
 [1.0 0.0 0.0 56.0 'yes' 'yes' 77.0]
 [0.0 1.0 0.0 35.0 'no' 'no' 89.0]
 [1.0 0.0 0.0 63.0 'yes' 'yes' 66.0]
 [0.0 0.0 1.0 28.0 'no' 'no' 89.0]
 [1.0 0.0 0.0 56.0 'yes' 'no' 76.0]
 [1.0 0.0 0.0 90.0 'yes' 'yes' 67.0]
 [0.0 0.0 1.0 17.0 'no' 'no' 93.0]
 [0.0 1.0 0.0 40.0 'no' 'yes' 90.0]
 [0.0 1.0 0.0 61.0 'no' 'yes' 90.0]
 [1.0 0.0 0.0 82.0 'yes' 'yes' 73.0]
 [0.0 1.0 0.0 49.0 'no' 'no' 80.0]
 [0.0 1.0 0.0 32.0 'no' 'no' 89.0]
 [1.0 0.0 0.0 59.0 'no' 'yes' 69.0]
 [1.0 0.0 0.0 86.0 'no' 'yes' 76.0]
 [0.0 0.0 1.0 12.0 'no' 'no' 97.0]
 [1.0 0.0 0.0 61.0 'yes' 'yes' 76.0]
 [0.0 0.0 1.0 19.0 'no' 'no' 89.0]
 [0.0 0.0 1.0 15.0 'no' 'no' 94.0]
 [0.0 0.0 1.0 26.0 'no' 'no' nan]
 [0.0 1.0 0.0 30.0 'no' 'no' 62.0]
 [1.0 0.0 0.0 80.0 'no' 'yes' 92.0]
 [0.0 0.0 1.0 20.0 'no' 'no' 92.0]
 [1.0 0.0 0.0 64.0 'yes' 'yes' 73.0]]
```

```
print(x_test)
```

```
[[0.0 0.0 1.0 25.0 'no' 'yes' 86.0]
 [0.0 0.0 1.0 10.0 'no' 'no' 97.0]
 [1.0 0.0 0.0 68.0 'yes' 'no' 67.0]
```

```
 [0.0 1.0 0.0 13.0 'no' 'no' 94.0]
 [1.0 0.0 0.0 59.0 'yes' 'no' 68.0]
 [0.0 0.0 1.0 28.0 'no' 'no' 99.0]
 [0.0 0.0 1.0 20.0 'no' 'no' 93.0]
 [1.0 0.0 0.0 46.0 'yes' 'no' 91.0]
 [1.0 0.0 0.0 53.0 'yes' 'no' 55.0]
 [0.0 0.0 1.0 16.0 'no' 'no' 92.0]
 [1.0 0.0 0.0 38.0 'no' 'no' 75.0]
 [0.0 0.0 1.0 19.0 'no' 'no' 92.0]
 [1.0 0.0 0.0 94.0 'yes' 'yes' 64.0]
 [0.0 1.0 0.0 12.0 'no' 'no' 97.0]]
```

```
print(y_train)
```

```
[1 0 1 0 1 1 0 0 1 0 0 0 1 1 1 0 1 0 0 1 0 1 0 0 1 1 0 0 1 1 1 0 0 1 0 1 0
 1 1 0 0 0 1 1 0 1 1 0 1 0 0 0 1 0 0 1]
```

```
print(y_test)
```

```
[0 0 1 0 1 0 0 0 1 0 1 0 1 0]
```

Feature Scaling

```
from sklearn.preprocessing import StandardScaler
sc=StandardScaler()
x_train[:,6:]=sc.fit_transform(x_train[:,6:])
x_train[:,6:]=sc.fit_transform(x_train[:,6:])
```

```
print(x_train)
```

```
[[1.0 0.0 0.0 86.0 'yes' 'yes' -0.9846525343745063]
 [0.0 1.0 0.0 35.0 'no' 'yes' 0.9494863724325597]
 [1.0 0.0 0.0 75.0 'no' 'yes' -0.8925506816694079]
 [1.0 0.0 0.0 42.0 'no' 'no' 0.9494863724325597]
 [1.0 0.0 0.0 74.0 'yes' 'yes' -0.6162451235541128]
 [1.0 0.0 0.0 62.0 'yes' 'yes' -1.2609580924898016]
 [0.0 1.0 0.0 24.0 'no' 'no' 0.9494863724325597]
 [0.0 1.0 0.0 48.0 'no' 'yes' 1.0415882251376583]
 [1.0 0.0 0.0 58.0 'no' 'no' -1.0767543870796048]
 [0.0 1.0 0.0 45.130434782608695 'yes' 'no' 0.765282667022363]
 [0.0 1.0 0.0 15.0 'no' 'no' 0.9494863724325597]
 [0.0 0.0 1.0 70.0 'no' 'yes' 0.5810789616121663]
 [1.0 0.0 0.0 52.0 'yes' 'yes' -0.15573586002862091]
 [1.0 0.0 0.0 60.0 'yes' 'yes' -1.2609580924898016]
 [1.0 0.0 0.0 54.0 'yes' 'yes' -1.0767543870796048]
 [0.0 0.0 1.0 29.0 'no' 'no' 1.0415882251376583]
 [1.0 0.0 0.0 78.0 'yes' 'yes' -0.9846525343745063]
 [1.0 0.0 0.0 36.0 'yes' 'no' 0.765282667022363]
 [0.0 1.0 0.0 30.0 'yes' 'no' 0.3968752562019694]
 [1.0 0.0 0.0 50.0 'yes' 'yes' -0.43204141814391606]
 [0.0 0.0 1.0 18.0 'no' 'no' 1.0415882251376583]
 [1.0 0.0 0.0 69.0 'no' 'yes' -2.6424858830662776]
 [0.0 0.0 1.0 10.0 'no' 'no' 1.4099956359580517]
 [1.0 0.0 0.0 26.0 'no' 'no' 1.1336900778427565]
 [0.0 1.0 0.0 18.0 'no' 'no' -1.4451617978999982]
 [1.0 0.0 0.0 62.0 'yes' 'yes' -1.168856239784703]
 [0.0 1.0 0.0 13.0 'no' 'no' 1.0415882251376583]
 [1.0 0.0 0.0 40.0 'no' 'no' 0.9494863724325597]
 [1.0 0.0 0.0 84.0 'yes' 'yes' -0.6162451235541128]
 [1.0 0.0 0.0 76.0 'yes' 'yes' -0.15573586002862091]
 [1.0 0.0 0.0 81.0 'yes' 'yes' -0.6162451235541128]
 [0.0 1.0 0.0 25.0 'no' 'no' 1.0415882251376583]
 [0.0 1.0 0.0 32.0 'no' 'yes' 0.21267155079177263]
 [1.0 0.0 0.0 56.0 'yes' 'yes' -0.43204141814391606]
 [0.0 1.0 0.0 35.0 'no' 'no' 0.6731808143172646]
 [1.0 0.0 0.0 63.0 'yes' 'yes' -1.4451617978999982]
 [0.0 0.0 1.0 28.0 'no' 'no' 0.6731808143172646]
 [1.0 0.0 0.0 56.0 'yes' 'no' -0.5241432708490145]
 [1.0 0.0 0.0 90.0 'yes' 'yes' -1.3530599451949]
 [0.0 0.0 1.0 17.0 'no' 'no' 1.0415882251376583]
 [0.0 1.0 0.0 40.0 'no' 'yes' 0.765282667022363]
 [0.0 1.0 0.0 61.0 'no' 'yes' 0.765282667022363]
 [1.0 0.0 0.0 82.0 'yes' 'yes' -0.8004488289643096]
 [0.0 1.0 0.0 49.0 'no' 'no' -0.15573586002862091]
 [0.0 1.0 0.0 32.0 'no' 'no' 0.6731808143172646]
 [1.0 0.0 0.0 59.0 'no' 'yes' -1.168856239784703]
 [1.0 0.0 0.0 86.0 'no' 'yes' -0.5241432708490145]
 [0.0 0.0 1.0 12.0 'no' 'no' 1.4099956359580517]
```

```
[1.0 0.0 0.0 61.0 'yes' 'yes' -0.5241432708490145]
[0.0 0.0 1.0 19.0 'no' 'no' 0.6731808143172646]
[0.0 0.0 1.0 15.0 'no' 'no' 1.1336900778427565]
[0.0 0.0 1.0 26.0 'no' 'no' nan]
[0.0 1.0 0.0 30.0 'no' 'no' -1.8135692087203918]
[1.0 0.0 0.0 80.0 'no' 'yes' 0.9494863724325597]
[0.0 0.0 1.0 20.0 'no' 'no' 0.9494863724325597]
[1.0 0.0 0.0 64.0 'yes' 'yes' -0.8004488289643096]]
```

Start coding or generate with AI.