```
In [1]:
        import pandas as pd
        from sklearn.model_selection import train_test_split
        from sklearn.naive_bayes import GaussianNB
        from sklearn import metrics
In [4]: | df = pd.read_csv("voice-classification.csv")
        df.head()
Out[4]:
                                     Q25
                                            Q75
                                                    IQR
           meanfreq
                       sd median
                                                           skew
                                                                     kurt
                                                                           sp.en
           0.059781 0.064241 0.032027 0.015071 0.090193 0.075122 12.863462
         0
                                                                 274.402906 0.89336
         1 0.066009 0.067310 0.040229 0.019414 0.092666 0.073252 22.423285
                                                                 634.613855 0.89219
          1.232831
                                                                  4 177296 0.96332
           0.135120 0.079146 0.124656 0.078720 0.206045 0.127325
                                                         1.101174
                                                                  4.333713 0.97195
        5 rows × 21 columns
In [8]: | X = df.iloc[:,:len(df.columns)-1]
        Y = df['label']
In [10]:
        x_train, x_test, y_train, y_test = train_test_split(X, Y, test_size=0.3, rando
        m state=10)
```

Out[10]: GaussianNB(priors=None, var_smoothing=1e-09)

g_model.fit(x_train, y_train)

g_model = GaussianNB()

```
In [11]: predicted_values = g_model.predict(x_test)
predicted_values
```

```
Out[11]: array(['female', 'male', 'male', 'male', 'male', 'female', 'male',
                                                                                                          'female', 'male', 'female', 'male', 'female', 'female',
                                                                                                         'male', 'female', 'female', 'male', 'male', 'male',
                                                                                                         'female', 'male', 'female', 'male', 'male', 'female',
                                                                                                         'male', 'male', 'female', 'male', 'female', 'female', 'female', 'male', 'male'
                                                                                                         'male', 'male', 'male', 'male', 'female', 'female',
                                                                                                          'female', 'female', 'male', 'male', 'male', 'male', 'male',
                                                                                                         'female', 'male', 'male', 'female', 'female', 'female', 'male',
                                                                                                         'female', 'female', 'female', 'male', 'female', 'male',
                                                                                                         'male', 'male', 'female', 'female', 'male', 'male', 'male',
                                                                                                         'male', 'female', 'male', 'female', 'male', 'male',
                                                                                                          'male', 'male', 'male', 'female', 'male', 'female',
                                                                                                          'female', 'female', 'male', 'female', 'female', 'female',
                                                                                                         'male', 'male', 'male', 'male', 'male', 'male', 'female', 'female', 'female', 'female', 'female', 'male', 'mal
                                                                                                         'female', 'female', 'male', 'male', 'female', 'male',
                                                                                                         'male', 'male', 'female', 'male', 'male', 'female',
                                                                                                          'female', 'male', 'female', 'female', 'male', 'female',
                                                                                                         'female', 'male', 'male', 'female', 'male', 'female', 'female', 'female', 'male', 'male', 'female', 'male', 'male'
                                                                                                         'male', 'female', 'female', 'female', 'female', 'male',
                                                                                                         'female', 'male', 'female', 'male', 'female', 'male',
                                                                                                         'female', 'male', 'female', 'male', 'male', 'male',
                                                                                                         'male', 'male', 'male', 'female', 'female', 'male',
                                                                                                          'female', 'female', 'female', 'female', 'female', 'female',
                                                                                                         'female', 'male', 'female', 'female', 'female', 'male', 'male', 'female', 'f
                                                                                                         'female', 'male', 'male', 'male', 'female', 'f
                                                                                                         'male', 'female', 'female', 'male', 'male', 'female',
                                                                                                         'male', 'male', 'female', 'female', 'female', 'male',
                                                                                                         'female', 'female', 'female', 'male', 'female',
                                                                                                         'male', 'female', 'female', 'female', 'male', 'male',
                                                                                                         'female', 'male', 'male', 'female', 'female', 'female',
                                                                                                         'female', 'female', 'female', 'male', 'female', 'male',
                                                                                                         'female', 'male', 'female', 'male', 'female', 'female', 'male', 'male', 'female', 'female', 'female', 'male', 
                                                                                                         'male', 'male', 'female', 'male', 'female', 'male',
                                                                                                         'female', 'female', 'female', 'female', 'female',
                                                                                                         'female', 'male', 'female', 'male', 'male', 'male', 'female', 'male', 'female', 'female', 'female', 'female', 'male', 
                                                                                                         'male', 'female', 'male', 'male', 'male', 'female', 'male',
                                                                                                         'male', 'male', 'female', 'male', 'male', 'male', 'male',
                                                                                                         'female', 'female', 'female', 'female', 'female', 'female',
                                                                                                         'male', 'female', 'male', 'male', 'male', 'male', 'female', 'male', 'female', 'female', 'female', 'female', 'female', 'female', 'female', 'female', 'male', 'female', 'female', 'female', 'female', 'male', 'female', 'male', 'female', 'male', 'male'
                                                                                                         'male', 'male', 'female', 'female', 'female', 'female',
                                                                                                         'female', 'female', 'female', 'female', 'male', 'male',
                                                                                                         'male', 'female', 'male', 'female', 'female', 'female',
                                                                                                         'male', 'male', 'female', 'male', 'male', 'male', 'female',
                                                                                                          'female', 'male', 'female', 'female', 'female', 'male', 'female',
                                                                                                         'male', 'male', 'male', 'male', 'male', 'female', 'female',
```

```
'female', 'female', 'male', 'female', 'female', 'male', 'female',
 'male', 'female', 'female', 'male', 'female', 'male',
'male', 'female', 'female', 'female', 'female',
 'male', 'male', 'male', 'female', 'female', 'female',
 'female', 'male', 'female', 'female', 'male', 'male',
 'male', 'female', 'female', 'female', 'female', 'female',
 'female', 'male', 'male', 'female', 'female', 'male',
  'female', 'female', 'female', 'male', 'female', 'male',
'female', 'female', 'male', 'male', 'male', 'male', 'female', 'female', 'male', 'male', 'female', 'male', 'mal
'female', 'female', 'male', 'female', 'male', 'female', 'female', 'female', 'female', 'male', 'male', 'male', 'female', 'male', 'male', 'male', 'male', 'female', 'male', 'mal
'male', 'male', 'female', 'female', 'male', 'female', 'male', 'male', 'female', 'female', 'female', 'female', 'female', 'male', 'male'
 'female', 'female', 'male', 'female', 'female', 'female',
 'male', 'female', 'male', 'male', 'male', 'male', 'male',
  'male', 'male', 'male', 'female', 'female', 'male', 'male',
 'female', 'female', 'male', 'female', 'male', 'male', 'female', 'female', 'male', 'male', 'female', 'male', 'male', 'female', 'male', 'female', 'male', 'male', 'female', 'male', 'female', 'male', 'female', 'male', 'male', 'female', 'male', 'male'
 'female', 'female', 'female', 'male', 'female', 'female',
 'female', 'male', 'female', 'male', 'female', 'male', 'female',
'female', 'male', 'female', 'male', 'male', 'female', 'male', 'female', 'female', 'female', 'female', 'male', 'female', 'female', 'female', 'female', 'female', 'male', 'female', 'female', 'female', 'female', 'male', 'female', 'female', 'female', 'female', 'male', 'female', 'f
 'male', 'female', 'female', 'male', 'male', 'male',
  'female', 'female', 'female', 'female', 'female', 'female',
'female', 'male', 'female', 'male', 'male', 'male', 'male', 'female', 'femal
 'female', 'male', 'female', 'female', 'male', 'female',
'male', 'male', 'male', 'female', 'female', 'female', 'male', 'male', 'male', 'male', 'female', 'male', 'male'
 'female', 'male', 'male', 'male', 'female', 'female',
 'female', 'male', 'male', 'female', 'male', 'female',
 'female', 'female', 'male', 'female', 'male', 'female',
 'female', 'male', 'male', 'male', 'female', 'male',
 'female', 'female', 'female', 'male', 'male', 'female',
  'male', 'male', 'female', 'male', 'male', 'male', 'female',
 'female', 'male', 'female', 'female', 'female', 'female',
 'female', 'female', 'male', 'male', 'female', 'male',
 'female', 'female', 'female', 'female', 'male', 'female',
 'female', 'male', 'female', 'female', 'male', 'male',
  'male', 'male', 'female', 'female', 'female', 'female',
 'male', 'female', 'male', 'male', 'female', 'male',
  'male', 'female', 'male', 'male', 'female', 'male', 'male',
 'female', 'male', 'male', 'male', 'male', 'male',
 'female', 'male', 'male', 'female', 'female', 'female',
'male', 'female', 'male', 'female', 'female', 'female', 'male', 'female', 'male', 'female', 'female', 'female', 'female', 'female', 'male', 'male', 'male', 'male', 'male', 'female', 'male', 'female', 'male', 'female', 'male', 'female', 'male', 'female', 'male', 'female', 'male', 'male'
 'male', 'male', 'male', 'male', 'female', 'female', 'male',
 'male', 'male', 'male', 'female', 'male', 'male', 'male',
 'female', 'female', 'male', 'female', 'female', 'female',
  'male', 'female', 'female', 'male', 'male', 'female',
 'female', 'male', 'male', 'female', 'male', 'female',
```

In []:

'male', 'female', 'male', 'male', 'male', 'male', 'female',
'female', 'female', 'female', 'female', 'female', 'male', 'female', 'male', 'female', 'male', 'female', 'male', 'male