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In [1]: # Author : Amir Shokri  
# github link : https://github.com/amirshnll/Speaker-Accent-Recognition  
# dataset link : http://archive.ics.uci.edu/ml/datasets/Speaker+Accent+Recognition  
# email : amirsh.nll@gmail.com
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In [1]: import numpy as np
import pandas as pd
from sklearn.model_selection import train_test_split
from sklearn.naive_bayes import GaussianNB
from sklearn.metrics import accuracy_score

df = pd.read_csv('dataset.csv')

x = df.drop('language', axis=1)
y = df['language']

x_train, x_test, y_train, y_test = train_test_split(x, y, test_size=0.2, random_state=0)


# ===== Gaussian Naive Bayes ===== #
model = GaussianNB()
model.fit(x_train, y_train)

print('===== Test Features =====')
print(x_test)

y_pred = model.predict(x_test)
print('===== Predicted Values =====')
print(y_pred)
accuracy = accuracy_score(y_test, y_pred)*100
print('Accuracy : ', accuracy)
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===== Test Features =====
      X1      X2      X3      X4      X5      X6  \
122  4.915523 -1.235624  0.599622  7.392184 -6.940796 12.207071
66   -2.863910  1.608425 -1.575423  4.480974 -4.044910  9.854652
142  -0.604683 -6.917135  5.041063  9.041541 -6.151566  8.941550
246  -0.419643  1.996737  0.228772 -1.067420  2.047180  1.922359
146  -2.595753 -2.466705  0.420945  5.337807 -5.523456  9.905345
..      ...      ...      ...      ...      ...      ...
235  9.322440 -6.613469 15.545937 -0.692066  1.894247 -1.774044
74   5.260007 -4.809373  3.745731  4.557293 -5.853547 13.670204
52  11.010367 -7.384443  1.917493 14.137857 -7.562776  8.674802
236  6.027468 -4.932851 15.630876 -0.741649  5.298756  1.032338
215 10.262510 -14.294344  3.020109  8.522629 -10.627219 11.559337

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      X7      X8      X9      X10      X11      X12
122 -9.472306  4.591876  1.369664 -4.563814  2.402545 -4.857425
66  -12.430810  7.228188 -1.795629 -1.801883  3.681854 -5.804928
142 -8.988871  6.992821  0.917500 -3.362391  0.311681 -7.100991
246 -5.937325  6.945288 -9.765117  7.552414 -3.122809 -1.647258
146 -10.124395  4.748502 -0.090000 -1.663290 -0.500254 -5.029416
..      ...      ...      ...      ...      ...      ...
235 -3.179173  4.184236 -7.829252 10.862655 -13.664104  3.627803
74  -10.862849  2.795047  1.535211 -1.147868  5.152335 -1.853668
52   -7.466133  6.909112  1.764772 -3.516485  8.485256 -7.841633
236 -4.786869  4.529260 -6.493262 10.275837 -11.121205  1.781395
215 -11.487250 -0.999699  1.695868 -2.700008  2.207667 -4.082932

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[66 rows x 12 columns]

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===== Predicted Values =====

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['GE' 'IT' 'UK' 'US' 'IT' 'GE' 'ES' 'ES' 'UK' 'UK' 'ES' 'IT' 'ES' 'IT'
 'US' 'US' 'UK' 'IT' 'GE' 'ES' 'FR' 'US' 'UK' 'US' 'US' 'IT' 'US' 'FR'
 'IT' 'FR' 'FR' 'US' 'FR' 'ES' 'ES' 'US' 'FR' 'ES' 'UK' 'GE' 'ES' 'ES'
 'UK' 'US' 'ES' 'FR' 'UK' 'UK' 'IT' 'IT' 'ES' 'IT' 'UK' 'US' 'IT' 'ES'
 'US' 'GE' 'GE' 'ES' 'US' 'US' 'GE' 'FR' 'US' 'US']

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Accuracy : 62.121212121212125