In [1]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
%matplotlib inline
```

In [2]:
```
df=pd.read_csv('Music_file.csv')
```

In [18]:
```
from sklearn.preprocessing import OneHotEncoder
from sklearn.compose import ColumnTransformer
from sklearn.pipeline import Pipeline
from sklearn.model_selection import train_test_split
from sklearn.metrics import accuracy_score,classification_report,confusion_matrix
```

In [4]:
```
df.head()
```

Out[4]:

	age	gender	genre
0	20	1	HipHop
1	23	1	HipHop
2	25	1	HipHop
3	26	1	Jazz
4	29	1	Jazz

In [5]:
```
x=df
y=df['genre']
```

In [6]:
```
from sklearn.linear_model import LogisticRegression
```

In [7]:
```
categorical_feature=['genre']
```

In [8]:
```
categorical_transformer=OneHotEncoder(handle_unknown='ignore')
```

In [9]:
```
preprocessor=ColumnTransformer(transformers=[('cat',categorical_transformer,categorical_feature)])
```

In [10]:
```
clf=Pipeline(steps=[('preprocessor',preprocessor),('classifier',LogisticRegression())])
```

In [11]:
```
x_train,x_test,y_train,y_test=train_test_split(x,y,test_size=0.33,stratify=y)
```

In [12]:
```
clf.fit(x_train,y_train)
```

Out[12]:
```
Pipeline(steps=[('preprocessor',
                 ColumnTransformer(transformers=[('cat',
                                                  OneHotEncoder(handle_unknown='ignore'),
                                                  ['genre'])])),
                ('classifier', LogisticRegression())])
```

In [15]:
```
y_pred=clf.predict(x_test)
```

In [17]:
```
accuracy_score(y_test,y_pred)
```

Out[17]:
```
1.0
```

In [19]:
```
confusion_matrix(y_test,y_pred)
```

Out[19]:
```
array([[1, 0, 0, 0, 0],
       [0, 2, 0, 0, 0],
       [0, 0, 1, 0, 0],
       [0, 0, 0, 1, 0],
       [0, 0, 0, 0, 1]], dtype=int64)
```

In [20]:
```
classification_report(y_test,y_pred)
```

Out[20]:
```
'              precision    recall  f1-score   support\n\n    Acoustic       1.00      1.00      1.00         1\n   Classical       1.00      1.00      1.00         2\n       Dance       1.00      1.00      1.00         1\n      HipHop       1.0
0      1.00      1.00         1\n        Jazz       1.00      1.00      1.00         1\n\n    accuracy                           1.00         6\n   macro avg       1.00      1.00      1.00         6\nweighted avg       1.00      1.00      1.00
6\n'
```