Goal to classify music genre – give audio file

Using GTZAN dataset – It has 10 genres in it and each genre with 100 .wav format audio files (30 secs each).

[Might even add my own genre into it]

**MODEL:**

We can use KNN, K Means Clustering, or CNN (we have the visual representation of the audio files in the dataset)

**Feature Selection:**

1. First, we divide the audio into multiple frames each of them is 20-40ms, as the audio signals constantly changes.

I have decided instead of making using the dataset provided I will extract the features from the audio itself so I can add any feature which seems useful and remove which are not.

I have decided all the feature to be extracted with some understanding of what the features represent and also decided to add some features.

My next step will be writing a code to create this dataset from the audio files.

labelencoder\_path = r"C:\Users\navan\Desktop\NK\SEM-V\CSE\_303\_ML\Project\data\processed\labelencoder.pkl"

standardscaler\_path = r"C:\Users\navan\Desktop\NK\SEM-V\CSE\_303\_ML\Project\data\processed\standardscaler.pkl"

pca\_path = r"C:\Users\navan\Desktop\NK\SEM-V\CSE\_303\_ML\Project\data\processed\pca.pkl"

best\_svm\_path = r"C:\Users\navan\Desktop\NK\SEM-V\CSE\_303\_ML\Project\data\processed\best\_svm.pkl"

csv\_file = r"C:\Users\navan\Desktop\NK\SEM-V\CSE\_303\_ML\Project\data\processed\musicgenre.csv"