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In [1]: from pydub import AudioSegment
import os
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In [2]: input_main_folder_path = "/Users/sravanipilla/Desktop/songs" #input folder
output_main_folder_path = "/Users/sravanipilla/Desktop/songs_final" #output folder
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In [3]: # Creating the output folder if it doesn't exist in that location
if not os.path.exists(output_main_folder_path):
    os.mkdir(output_main_folder_path)

# Getting the list of genre subfolders
genre_folders = [f for f in os.listdir(input_main_folder_path) if os.path.isdir(os.path.join(input_main_folder_path, f))]
```



In [4]: *# Looping through each genre folder*

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for genre in genre_folders:

    # Path to the current genre input and output folders
    genre_input_folder_path = os.path.join(input_main_folder_path, genre)
    genre_output_folder_path = os.path.join(output_main_folder_path, genre)

    # Creating the genre-specific output folder if it doesn't exist

    if not os.path.exists(genre_output_folder_path):
        os.mkdir(genre_output_folder_path)

    # Listing all the files in the input genre folder

    file_list = os.listdir(genre_input_folder_path)

    # Filter out non-MP3 files if necessary
    file_list = [file for file in file_list if file.endswith('.mp3')]

    # Loop through each file in the genre folder

    for i, file_name in enumerate(file_list, start=1):

        # Full path to the current input file

        input_file_path = os.path.join(genre_input_folder_path, file_name)

        # Loading the audio file
        audio = AudioSegment.from_file(input_file_path)

        # Define start and end times for the 30-second segment i.e first
        start_time = 0 * 1000
        end_time = 30 * 1000    # 30 seconds in milliseconds

        # Trimming the audio to the 30-second segment

        trimmed_audio = audio[start_time:end_time]

        # Setting properties to match GTZAN data set specifications

        trimmed_audio = trimmed_audio.set_frame_rate(22050) # Setting sample rate
        trimmed_audio = trimmed_audio.set_channels(1)        # Setting number of channels

        # Defining the output file name based on genre and number

        output_file_name = f"{genre.lower()}_{i}.wav"

        # Full path to the output file
        output_file_path = os.path.join(genre_output_folder_path, output_file_name)

        # Exporting the trimmed audio to a new file
        trimmed_audio.export(output_file_path, format="wav", parameters=None)

        print(f"Processed file saved to: {output_file_path}")

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Processed file saved to: /Users/sravanipilla/Desktop/songs\_final/pop/pop1.wav  
Processed file saved to: /Users/sravanipilla/Desktop/songs\_final/pop/pop2.wav  
Processed file saved to: /Users/sravanipilla/Desktop/songs\_final/pop/pop3.wav  
Processed file saved to: /Users/sravanipilla/Desktop/songs\_final/pop/pop4.wav  
Processed file saved to: /Users/sravanipilla/Desktop/songs\_final/pop/pop5.wav  
Processed file saved to: /Users/sravanipilla/Desktop/songs\_final/metal/metal1.wav  
Processed file saved to: /Users/sravanipilla/Desktop/songs\_final/metal/metal2.wav  
Processed file saved to: /Users/sravanipilla/Desktop/songs\_final/metal/metal3.wav  
Processed file saved to: /Users/sravanipilla/Desktop/songs\_final/metal/metal4.wav  
Processed file saved to: /Users/sravanipilla/Desktop/songs\_final/metal/metal5.wav  
Processed file saved to: /Users/sravanipilla/Desktop/songs\_final/disco/disco1.wav  
Processed file saved to: /Users/sravanipilla/Desktop/songs\_final/disco/disco2.wav  
Processed file saved to: /Users/sravanipilla/Desktop/songs\_final/disco/disco3.wav  
Processed file saved to: /Users/sravanipilla/Desktop/songs\_final/disco/disco4.wav  
Processed file saved to: /Users/sravanipilla/Desktop/songs\_final/disco/disco5.wav  
Processed file saved to: /Users/sravanipilla/Desktop/songs\_final/Blues/blues1.wav  
Processed file saved to: /Users/sravanipilla/Desktop/songs\_final/Blues/blues2.wav  
Processed file saved to: /Users/sravanipilla/Desktop/songs\_final/Blues/blues3.wav  
Processed file saved to: /Users/sravanipilla/Desktop/songs\_final/Blues/blues4.wav  
Processed file saved to: /Users/sravanipilla/Desktop/songs\_final/Blues/blues5.wav  
Processed file saved to: /Users/sravanipilla/Desktop/songs\_final/reggae/reggae1.wav  
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azz4.wav
Processed file saved to: /Users/sravanipilla/Desktop/songs_final/jazz/j
azz5.wav
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In [ ]: