Report on Software Assignment Playing Audio Files Randomly AI1110 : Probability and Random Variables

Tumarada Padmaja
CS22BTECH11059

1 INTRODUCTION

The goal of assignment is to create a playlist of audiofiles and play them randomly. A program is written in Python using libraries like random,os and pygame libraries.

2 CREATION OF AUDIO FILES FROM VIDEO FILES

The videos files provided have .mov extension which are converted into audio files using VLC media player i.e to .mp3 extension. A folder of these files is created.

3 PLAYING THE AUDIO FILES RANDOMLY

The OS module in python is used to go through the files in the directory mentioned. Then a list called playlist is created using these files. Random module provides function random.shuffle which helps in shuffling the audio files in the playlist created i.e randomising it. The pygame module is used for handling audio,multimedia applications,etc. This is used in the program to handle the audio files i.e to play, pause,resume,etc.
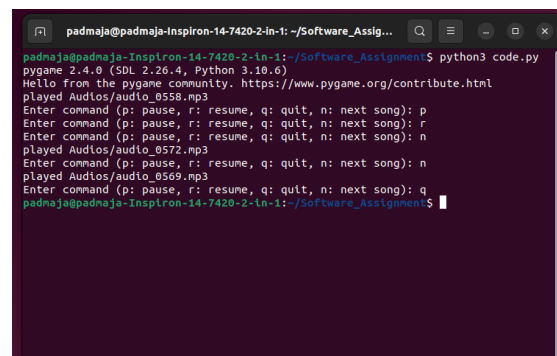
4 FEATURES

The program asks user input for different purposes.
Pause: user can pause the audio by pressing **p**, this is achieved using the function pygame.mixer.music.pause()

Resume: user can resume the audio by pressing **r**, this is achieved using the function pygame.mixer.music.unpause()
Next: user can navigate to the next audio file by pressing **n**
Quit user can quit the audio by pressing **q**

5 DESCRIPTION OF CODE

There are three loops used in main function.
One is an infinite while loop which is used here to resume the program until user wants to quit.
The next, for loop is used to iterate through and play the randomised playlist.
The inner while loop ensures that user is given opportunity to give input as long as a song is playing.
Other functions are to create a playlist, randomise it and play the audio files.

6 OUTPUT

Fig. 1: User Interface

7 CONCLUSION

Overall, the code produces a random playlist, keeps on generating until user asks to stop it. The flow of playlist is in the hands of user as at each step user is asked an input. A random playlist of MP3 files is created and can be played by the user.