Software Assignment Documentation
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Aim

To make a python code which makes a playlist of songs, shuffles and allows us to play next, previous songs. The songs are shuffled in a such a way that each song of the playlist should be played atleast once and only once before it loops again.

Description

Tkintker library has been used to make the window. Numpy is used to randomize the playlist. The songs should be played either by terminal or GUI(Graphical User Interphase). To play the audio files PyGame library is used. os library is used to select the directory.
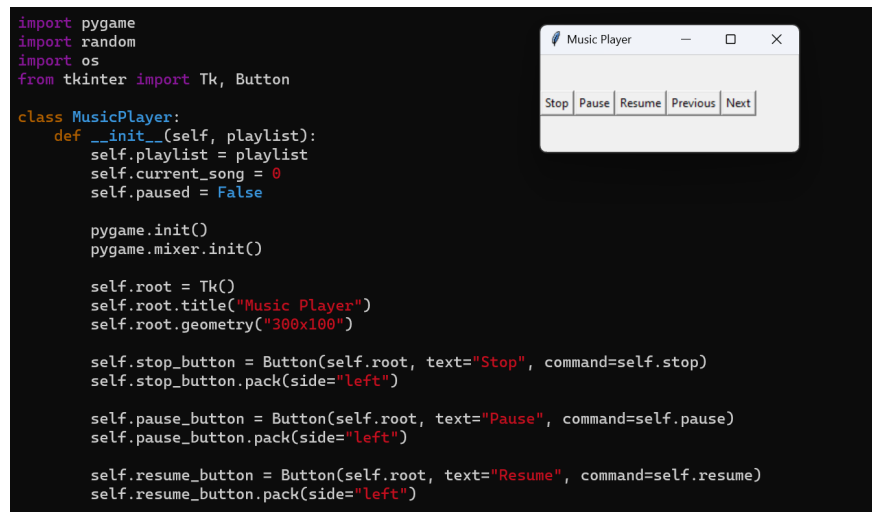

Figure 1: GUI

Procedure

The program scans the default folder and makes a list of all the mp3 files present in it. The Shuffle function in the program randomizes the order of the audio files. As this only randomises the list, no repitition is observed. Audio file playback is handled entirely through PyGame module functions. (Pygame mixer is used).

Shuffle function

1. It replaces two elements with the second element to be replaced

2. As it replaces the elements, there is no repetition in the playlist.

3. This function is executed whenever the playlist reaches the last song and whenever the user presses next song button.

Conclusion

A list of songs in a playlist can be shuffled in such a manner that they don't repeat in one loop and this runs by the users interest. The GUI makes things much easier and effiecient. The modules used for the program are pygame, tkinter, random, os.