

Software Assignment Report

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Objective :

The objective of this assignment is to make a Python script that can make a playlist of songs and shuffle them randomly. The songs must be shuffled such that each song in the playlist is played before it gets looped.

Overview:

- Numpy library has been used, which allows us to randomize the songs
- We are playing the songs through GUI.
- Tkinter library has been used in the program to make the window.
- PyGame library has been used to play audio files.
- os module has been used to search file directory (cwd/songs) by default.

Working:

- shuffle function in the program randomizes the order of the music files.
- Because the function only randomizes the order, there is no repetition of songs in the playlist.
- File managing is done completely through os module functions.
- Audio file playback is handled entirely through PyGame module functions. Pygame mixer is also used.

Shuffle function

- It replaces two elements with the second element to be replaced taken from randint function of numpy.random.
- As it replaces the elements, there is no repetition in the playlist.
- This function is executed whenever the playlist reaches the last song and user presses next song button.

Libraries used :

1. Pygame
2. Random
3. os
4. tkinter