

AI110 - Software Report

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Link -

Click "here" to refer the code.

1.Introduction

In this project, we are supposed to write a python code which allows us to play songs from a playlist using the Pygame library. It randomly shuffles the playlist, plays the songs one by one, and provides options to pause, resume, skip to the next song, and exit the program. The program operates in an infinite loop, continuously playing songs until the user decides to quit. It prompts the user for commands in the terminal, making it easy to control the playback. Overall, it provides a simple and interactive way to enjoy a randomized playlist of songs using Python and Pygame.

2. Shuffling

The libraries used will randomly shuffles a playlist of songs and plays them using the Pygame library. It allows for various user commands such as skipping to the next song, pausing/resuming playback, and exiting the program, if we reach the end of the playlist then it will again play songs from the starting randomly and this happens continuously. Playlist is randomly shuffled using the `random.shuffle()`

3. Music Player

A music player is implemented using the Pygame library. Within the loop, it waits for keyboard events. The user can enter commands such as 'n' to skip to the next song, 'p' to pause, 'r' to resume, or 'q' to quit. It usually resembles the actual music player that we use in our electronic devices but here it just asks for commands to skip or resume or pause or quit instead of display buttons.

4. Accessing audio files

We have created an empty playlist in the code written to bring all the randomly shuffled audio files from a particular directory to the created playlist. As we all know the shuffle option that we use in our music players, the python code itself shuffles all the songs that we kept in the playlist everytime when we reach the end of the playlist.

5. Conclusion

```
keerthi@keerthi:~$ python3 song.py
pygame 2.4.0 (SDL 2.26.4, Python 3.10.6)
Hello from the pygame community. https://www.pygame.org/contribute.html
Now playing: s7.mp3
Enter command (n to skip to next song, p to pause, r to resume, q to quit): p
Paused
Enter command (n to skip to next song, p to pause, r to resume, q to quit): r
Resumed
Enter command (n to skip to next song, p to pause, r to resume, q to quit): n
Now playing: s10.mp3
Enter command (n to skip to next song, p to pause, r to resume, q to quit): n
Now playing: s2.mp3
Enter command (n to skip to next song, p to pause, r to resume, q to quit): n
Now playing: s18.mp3
Enter command (n to skip to next song, p to pause, r to resume, q to quit): q
keerthi@keerthi:~$
```

Finally we can conclude that, the python music player is implemented using Pygame. It allows users to play songs from a specified playlist directory. The code shuffles the playlist, plays the first song, and provides basic controls such as pause, resume, skip to the next song, and quit. We can interact with the player through the keyboard and terminal. Overall, it offers a basic music player functionality with playback controls and playlist management.