

Software Assignment

AI1110: Probability and Random Variables

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Playing songs from a playlist after shuffling

(i) **Summary:** This project presents a Python script designed to play songs in a shuffled order. The script utilizes the power and flexibility of Python programming to create an efficient and enjoyable music playback experience. This report outlines the project's methodology, implementation details, and the results obtained from the script.

(ii) **Working Procedure:**

This python script uses os module to return the list of songs from songs directory. Then it uses numpy module to pick a random song from the list. pygame module is used to load and play a random song from the list using mixer methods. Then the song is removed from the list to not to cause repetition of same song. Then used tkinter to create interface.

In interface there are Nextsong, pause, resume and quit options. After all songs are played it asks us to whether to play the playlist once again or not.

(iii) **Result:** Upon running the Python script, the shuffled song playback functionality is observed. The songs are played in a random order. Users can enjoy a unique listening experience with songs they may not have encountered in a sequential playback.

(iv) **Conclusion:** In conclusion, the Python script developed for shuffled song playback offers an alternative and exciting approach to music listening. By leveraging Python's versatility, the script randomizes the song order, providing users with an engaging and varied playlist experience. The script can be further enhanced by incorporating features

like genre-based shuffling or intelligent song recommendations, thereby elevating the music playback experience to new heights.

(v) **Modules used:**

- a) numpy
- b) os
- c) pygame
- d) tkinter

(vi) **Images:**



Fig. 1. output1

```
Playing: /home/chandrabhas/probassign/audio2.mp3
Playing: /home/chandrabhas/probassign/audio3.mp3
Playing: /home/chandrabhas/probassign/audio6.mp3
Playing: /home/chandrabhas/probassign/audio5.mp3
Playing: /home/chandrabhas/probassign/audio4.mp3
Playing: /home/chandrabhas/probassign/audio9.mp3
Playing: /home/chandrabhas/probassign/audio8.mp3
Playing: /home/chandrabhas/probassign/audio10.mp3
Playing: /home/chandrabhas/probassign/audio7.mp3
Playing: /home/chandrabhas/probassign/audio1.mp3
No more songs in the playlist
```

Fig. 2. output2