

AI5030 - Software Assignment

Generating an audio playlist with random number generation

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Aim: To create an interactive GUI that enables playing the audio in random order

Usage:

To use this program these steps are to be followed:

Given data : Samples of 20 recorded videos

Solution: A random number generator generates random numbers within a specified range. Here it has been utilised to generate an audio playlist in a random order. The numbers thus generated have a uniform distribution wherein each occurrence is equiprobable. This project ultimately plays audio files from a playlist randomly using a python code. In this we use the Moviepy for converting video files to audio, the os for importing the files, random for random selection of songs. Initially the audio from the video has been extracted using Moviepy library in python. The audio files thus extracted are saved in the same folder as the source code file and are later utilised for further processing.

Implementation :

This entire project uses python and these are the steps followed

- **Extraction of audio:** The program lists all the video files in a folder converted to audio files utilising the os library
- **File selection and Randomization:** After providing path of folder containing files, the program lists all the audio files and shuffles them randomly
- **Audio playback:** The Moviepy library is used to load and play the audio files. This plays the songs in a sequence.

- The python is run to extract the audio files from the video playback in the folder "Videos"
- The extracted audio are saved in the same path as the code file and hence random generator code is to be run to fetch the audio files in a randomized fashion
- The interactive GUI enables easy navigation among various songs.

Conclusion: The project's primary objective of creating play randomly in a chosen playlist with GUI functionality is successfully attained. This programme encourages people to enjoy the song collection. This clearly demonstrates how Python was used to create a fun randomly played audio playlist.

Audio18.mp3
Audio17.mp3
Audio6.mp3
Audio9.mp3
Audio8.mp3
Audio12.mp3
Audio10.mp3
Audio0.mp3
Audio5.mp3
Audio1.mp3
Audio7.mp3
Audio19.mp3
Audio2.mp3
Audio11.mp3
Audio4.mp3
Audio16.mp3
Audio14.mp3
Audio3.mp3
Audio13.mp3
Audio15.mp3

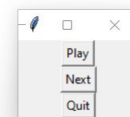


Fig. 1. The list of the random playlist along with the GUI

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