

Probability Software Report

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1 INTRODUCTION

The goal of this project was to create a Python program that plays audio files from a specified folder in a random order, with the ability to navigate to the next track. The program utilizes the `pygame` library for audio playback and the `numpy` library for selecting songs randomly and `os` for importing the files.

2 IMPLEMENTATION

The program is implemented in Python and consists of the following key components:

- **File Selection:** The user provides the path to the folder containing the audio files.
- **Randomization:** The program shuffles all the audio files randomly using `numpy` library.
- **Audio Playback:** The `pygame` library is used to load and play the audio files. The program sets the volume level and plays the files sequentially.
- **Next Track:** Entering "next" in the terminal starts playing the next track.

3 USAGE

To use the program, follow these steps:

- 1) Run the program in a Python environment (Python 3 or above).
- 2) Provide the path to the folder containing the audio files.
- 3) Enter "next" in the terminal to go to the next track
- 4) The program will play the audio files in a random order each time it is run.

4 DEPENDENCIES

The program relies on the following external libraries:

- **pygame:** Used for audio playback and volume control.
- **numpy:** Used for randomising the songs played.

Ensure that these libraries are installed in the Python environment before running the program.

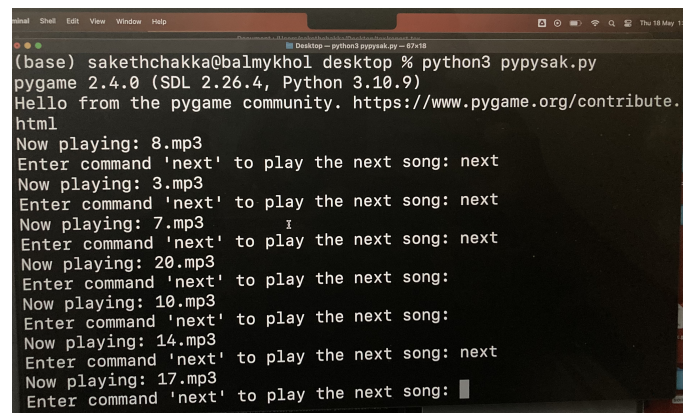
5 CONCLUSION

The project successfully achieves its objective of creating a random audio player. The program allows users to enjoy their audio collection in a randomized order and provides convenient navigation options.

In summary, the random audio player project demonstrates the effective utilization of Python libraries to create an interactive and enjoyable audio playback experience.

OUTPUT

Random numbers are generated on the display.



```
(base) sakethchakka@balmykhol desktop % python3 pypysak.py
pygame 2.4.0 (SDL 2.26.4, Python 3.10.9)
Hello from the pygame community. https://www.pygame.org/contribute.html
Now playing: 8.mp3
Enter command 'next' to play the next song: next
Now playing: 3.mp3
Enter command 'next' to play the next song: next
Now playing: 7.mp3
Enter command 'next' to play the next song: next
Now playing: 20.mp3
Enter command 'next' to play the next song:
Now playing: 10.mp3
Enter command 'next' to play the next song:
Now playing: 14.mp3
Enter command 'next' to play the next song: next
Now playing: 17.mp3
Enter command 'next' to play the next song: 
```

Fig. 1: output