Software Assignment Report
AI1110 Probability and Random Variables

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1 Introduction

This report provides an overview of the Python script which generates a random music player. Code used 'random' and 'playsound' modules to generate a non repeating sequence of random numbers and play the corresponding songs.

2 Code Analysis

1) Importing Required modules:
   The code begins by importing the necessary modules 'random' and 'playsound'. These modules are essential for generating random numbers and playing audio files.

2) Defining the Songs list:
   A list named 'songs' is defined,containing the filenames of the available songs.The list serves as the data source from which the random songs will be selected for playback.

3) Generating Random Numbers:
   The code uses 'random.sample()' function to generate a list of 20 non-repeating random numbers within the range of 0 to 20. The'sample()' function ensures that the generated numbers are unique.

4) Song Playback Loop:
   The code enters a 'while' loop which runs infinitely. Within the loop random numbers are generated using the 'random.sample()' function.Each random number generated is iterated over.The corresponding song filename is retrieved from the 'songs' list using the current number as the index.The song filename is then printed to the console so that we can have the knowledge of the song played and check if there is repetition.

5) Playing the songs:
   After printing the song filename, sing the 'playsound()' function the audio file can be played corresponding to the filename provided as argument to the function.

3 Conclusion

The code creates a random music player that plays 20 songs from a given list of filenames.The code demonstrates a simple implementation of random song selection and audio playback in Python.

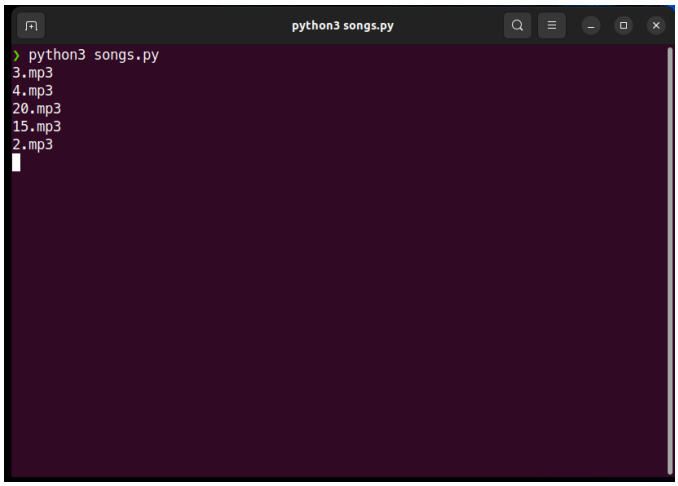

Fig. 5: Terminal