Software Project Report

AI1110: Probability and Random Variables
Indian Institute of Technology Hyderabad

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Aim:

To make a playlist which plays songs randomly using python.

Scripting Language:

Python

Libraries used:

1) Random
2) Pygame

Code Logic:

1) Using random module, a list is created which contains the numbers from 1 to 21 in random order.
2) The empty list named 'file', contains the audio files to be played.
3) Using 'load' method of Pygame module, we load the required file by running a loop and taking it from the playlist.
4) We then play the audio file using 'play' method of Pygame module.
5) The variable "x" takes an input and if it is equal to 'n' it stops the current music and goes to the next song on the list.

Photos attached:

```python
import random
import pygame

pygame.mixer.init()

rand_array=random.sample(range(1,21),k=20)
file=[]
for i in rand_array:
    file.append(f"VF{rand_array[i-1]}.mp3")

for i in file:
    print("Song playing currently:",i)
    pygame.mixer.music.load(f"audio/{i}")
    pygame.mixer.music.play()

    x=input("Press n to change song")
    if x=='n':
        pygame.mixer.music.stop()
else:
    print("Hope you enjoyed the playlist!")
```

Fig. 5. Program Code

```
tanmay@tlappy:~/Audio-Assignment$ python3 mp3_player_1.py
pygame 2.1.2 (SDL 2.0.20, Python 3.10.6)
Hello from the pygame community. https://www.pygame.org/contribute.html
Song playing currently: VF4.mp3
Press n to change songn
Song playing currently: VF11.mp3
Press n to change songn
Song playing currently: VF5.mp3
Press n to change songn
Song playing currently: VF7.mp3
Press n to change songn
Song playing currently: VF20.mp3
Press n to change songn
Song playing currently: VF9.mp3
Press n to change songn
Song playing currently: VF2.mp3
Press n to change songn
Song playing currently: VF8.mp3
Press n to change songn
Song playing currently: VF3.mp3
Press n to change songn
Song playing currently: VF12.mp3
Press n to change songn
Song playing currently: VF10.mp3
Press n to change songn
Song playing currently: VF1.mp3
Press n to change songn
Song playing currently: VF17.mp3
Press n to change songn
Song playing currently: VF14.mp3
Press n to change songn
Song playing currently: VF15.mp3
Press n to change song^CTraceback (most recent call last):
  File "/home/tanmay/Audio-Assignment/mp3_player_1.py", line 16, in <module>
    x=input("Press n to change song")
KeyboardInterrupt
```

Fig. 5. Output of the program

Conclusion:

Thus we have created a random playlist using python libraries.