

Guitar Proficiency Tool

Yorgos Tryfonas

What is the tool?

- Takes input for level (1 - 4)
- Outputs 6 randomized non repeating questions
- Clear memory function resets it
- Stop function terminates it

Motivation

- Wanted a program to train for the guitar proficiency
- Non repeating randomness helps with deeper understanding of the material

How the program works

- Nested for loops create structured lists with all possible combinations
- Using the random module I pull from those lists
- Depending on how many elements were combined I change the random step (either 2 or 3)

Example

List A = [A,B,C]

List B = [1,2,3]

Nested for loop combines lists → List C =[A,1,A,2,A,3,B,1,B,2,B,3,C,1,C,2,C,3]

Because I combined two lists I use **2** as my step on the random module to only get the **even** list elements.

So r(my random number) can only be: [**A,1,A,2,A,3,B,1,B,2,B,3,C,1,C,2,C,3**]

This way I can print **r** and **r+1** next to it to get two elements, one from the first list and one from the second. Then I remove them before the next repetition to avoid questions being repeated.

DEMO

Not working yet

- No ui
- No score system

Improvements

- Make code more efficient / readable
- Make a UI using Tkinter
- Make a calendar score tracking system