CNRI HW 5

Fall 2023

CNRI Week 5 Homework

1. Review lecture_5_psychopy_solutions.py and Python_Lecture_5_Notes.pdf as needed

2. Continue meeting with your Python project group and create a working experiment task flow (in python), as mentioned in the week 4 homework. **This is due to Miles and Raphael by Thursday 10/19.** This should at minimum have a for loop and the names & templates of at least two functions (but create all of them if you can). You do not have to have these functions fully coded! Just create good, descriptive names for them, and plan out what their inputs & outputs should be. Ideally, have them print out what they are doing 'print('Displaying stimulus')' and see if you can actually run the file. When you finish your .py file, email it to raphael.geddert@duke.edu and miles.martinez@duke.edu, or send it over the CNRI-Interns slack channel in a private message, by classtime of week 6.

3. Continue practicing packages and documentation in the editor of your choice:

   (a) Using your editor (spyder, VC Code, or other IDE), create a new .py file and save it somewhere on your computer.

   (b) Open terminal (or anaconda prompt on windows), and activate the conda environment that has psychopy

   ```
   conda activate psychopy
   ```

   (c) Change the terminal folder by using 'cd /path/where/file/is/'. On mac, the easiest way to get this path is to find the file in your finder, right click on it, hold down the option key, and select 'Copy as pathname'. Don't type the file name when cding, just the folder it is in. So, to get to '/path/to/file/file.py', type 'cd /path/to/file/'.

   ```
   cd /Users/.../programming/
   ```

   (d) Read the documentation for the psychopy core function at this link

   (e) Import the core package from psychopy in your py file

   ```
   from psychopy import core
   ```

   (f) Using the timer = core.Clock() and timer.getTime() methods, add the following while loop to your file, then run the file in terminal (or anaconda prompt) by calling 'python file.py'

   ```
   timer = core.Clock()
   while True: #this is an infinite loop, be careful!
       if timer.getTime() > 5:
           print('It has been 5 seconds!')
           break #this gets us out of the infinite while loop
   ```

   (g) Homework: Modify the code above to print out the current time every second (e.g., "It has been 1 second", "It has been 2 seconds", etc). Break out of the for loop after 10 seconds. Some hints: The int() function always rounds down, so if timer.getTime() = 4.37, int(timer.getTime()) will = 4. You can insert a variable into a string with an "f string". Google "python f string" for more information. The challenge here is getting it to only print out once per second. One approach is creating an empty list at the beginning, and ".append()" into that list the current time every time we print. If the current time (e.g. 3) is already in that list, don't print again. Good luck!

4. Email raphael.geddert@duke.edu and miles.martinez@duke.edu a screenshot of steps 3, both code and the terminal output, or send it over the CNRI-Interns slack channel in a private message.