

For this assignment, you will build a game that tests a person's reaction time, tapping accuracy and courage. The basic game rules are as follows:

- At random time intervals (explained further below), generate a box on the screen.
- Each box should be of bluish tone or reddish tone.
- The user has to tap the bluish box as fast as he can.
- The box disappears from the screen once the player taps it, or if the player has not tapped it in 2 seconds.
- A new box is then generated with a random amount of pause (from 0.5 to 5 seconds), and the process is repeated.
- A score bar at the top of the screen should keep track of:
  - Number of correct taps
  - Average response time for correct taps
  - Number of incorrect taps (if you hit the red box)
- At the start of the app, you should let the user tap "I'm ready" before the game begins.
- Limit the total number of rounds to 10, and display the final score in the center of the screen, at the end of the game. Just use a box that appears in the middle of the screen and have the text show there.

Instructions for submitting your program:

1. In the header comment block of your code in main.lua, describe/explain your approach to the problem. **ALL members' names must appear in this header block to receive credit.**
2. Place ALL necessary files into a new folder (or directory) with the following naming convention:

If there are three members in the group:

`lastname1.lastname2.lastname3.<SMYR>.HW2`

If there are two members in the group:

`lastname1.lastname2.<SMYR>.HW2`

If you are working by yourself:

`lastname.firstname.<SMYR>.HW2`

Replace <SMYR> with semester and year information. Fall is denoted FA, spring is denoted SP. The year is denoted using the last two digits of the current year. For example, for Fall 2015, use FA15. For example, for Fall of 2015 for John Adams and Thomas Jefferson, it would become: adams.jefferson.FA15.HW2

3. Zip up the above directory using the following naming convention (DO NOT use rar) and submit.  
If there are three members in the group:  
`lastname1.lastname2.lastname3.<SMYR>.HW2.zip`  
... etc.
4. Be ready to demo the program.

Some things to note regarding grading:

- A program that runs into errors upon starting or almost immediate gets an automatic 0.
- There is a 20% penalty for poor documentation & readability. Have plenty of comments.
- No partial credit will be given to programs that lack documentation.
- Make sure to place comments so that others can understand your program.

Enjoy!