

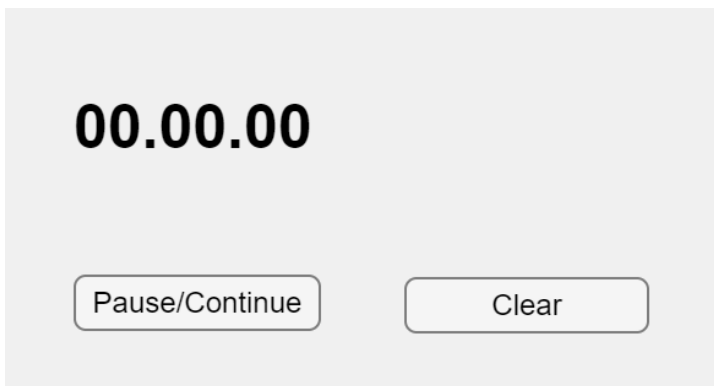
CS132: Software Engineering

HW4: Matlab APP

In this homework, you are asked to make a simple stop watch in Matlab. **Note that you should adopt the code structure described below. Putting everything in a Matlab app will result in zero points for the homework.**

Frontend

The frontend should look like the figure below:



- The clock is represented using “label”, which starts at 00:00.00 with minute:second.msec.
- The “Pause/Continue” button is a “状态按钮”, which controls the running of the clock. You should be able to read the value of the button to run the clock when the button is pressed and stop when the button is un-pressed.
- A “clear” button calls a reset function in the backend to reset the clock.

Backend

The backend should be a class in Matlab, which contains the following components:

- Clock: the current clock value
- Timer: calls the timer callback function every 0.01 second
- Controller function: read the value of the “Pause/Continue” button and change the value of the clock variable accordingly.
- Update app function: when called, update the clock on the app with the value of the clock variable.
- Reset function: when called, update the clock variable to 00:00.00
- Timer callback function: in each callback, run the controller function and update app function

Deadline

The deadline of this homework is **May 18th** at 23:59. Please submit a .zip file electronically on BlackBoard with all the code.