I am thinking of writing the project proposal using LaTex, it is easy to use and it makes sure the font and spacing is correct

link for our project proposal: <https://www.overleaf.com/2746417837wkxwtmndtfyh#127f0e>

First Idea:

Simon Game:  
<https://freesimon.org/>

You could just try this and you will know what it is and how it works

So I am thinking of using light inside the button to let the user to remember the sequence and they will imitate the output on the bottons, and the buttons will connect to fpga to store their grade . and if they input the correct sequence once, the grade will up one on the hex display, and we could change the clock frequency after a few rounds when they input them correctly. At the end, if they lose, we will add “losing” audio.

Second Idea:

Whack-A-Mole:

POINTS DOABLE:

* Many FSMs or one big FSM (more than 10 states) (0.5 points)
* More complex datapaths (0.25 to 0.5 points: depends on complexity)
* Utilize on-chip and off-chip memory, and potentially share memory ports with complex access schemes.(0.25 to 0.5)
* Switches and keys (0.25 points)
* Implement audio output. (0.5 points)
* LEDs and 7-Seg display (0.125 points)
* Handle clock crossing for devices with different asynchronous clocks. (0.25 points)

Deliverables:

1. You only need to submit your proposal on Quercus. The proposal must be a maximum

of one page single-sided single-spaced of at least 11pt font stating:

(a) The idea of your project summarized in 1-3 sentences.

(b) A simple high-level block diagram of the hardware showing the datapath, the inputs and the outputs

(c) The milestones of the project stating your individual intended progress on a week-by-week basis, dedicating at least 1.5 weeks to debugging and integration of the project at the end. Place internal deadlines on the individual components.

(d) The division of tasks between team members. Each member must state the components they are taking responsibility for doing with a project cost of at least 1 point. Please refer to the project rubric.

In the days after the proposal is submitted, a TA will comment a reply with suggestions for the project.