CVX601 Special Topics in Computer Science Technology

Lab Assignment #2

No late turn-in accepted

Design the **7 segment display logic** with schematic-based approach. Take a 4-bit input from SW[3], SW[2], SW[1], and SW[0] on the DE0 board. Display the number on HEX0 of the DE0 board. Turn off the other 3 7-segments (HEX1 ~ HEX3) on the DE0 board

Since you take inputs from 4 switches, it can represent numbers from 0x0 to 0xF. Design the combinational logic discussed in the lecture slides, which can display a decimal number from **0 to 9** depending on the switch inputs.

Please check out the pin mapping file linked on the class page for the input and output naming.

38	SW[3]	Unknown	PIN_G4	1	B1_N0	3.3-V LVTTL
39	SW[2]	Unknown	PIN_H6	1	B1_N0	3.3-V LVTTL
40	SW[1]	Unknown	PIN_H5	1	B1_N0	3.3-V LVTTL
41	SW[0]	Unknown	PIN_J6	1	B1_N0	3.3-V LVTTL

202	HEX0_D[0]	Unknown	PIN_E11	7	B7_N1	3.3-V LVTTL
203	HEX0_D[1]	Unknown	PIN_F11	7	B7_N1	3.3-V LVTTL
204	HEX0_D[2]	Unknown	PIN_H12	7	B7_N1	3.3-V LVTTL
205	HEX0_D[3]	Unknown	PIN_H13	7	B7_N1	3.3-V LVTTL
206	HEX0_D[4]	Unknown	PIN_G12	7	B7_N1	3.3-V LVTTL
207	HEX0_D[5]	Unknown	PIN_F12	7	B7_N1	3.3-V LVTTL
208	HEX0_D[6]	Unknown	PIN_F13	7	B7_N1	3.3-V LVTTL

What and How to submit:

1. Upload video clip (3-min?) to Blackboard. Your video clip should have **at least** the following contents:
    - Your smiling face
    - Understandable explanation of what you did for the assignment
    - Demo on DE0 board

Note: This is an individual assignment. You are welcome to discuss, but DO NOT COPY solutions. If you are found to copy solutions from others or slightly modify the solutions from others, both of you will be given 0 credits.