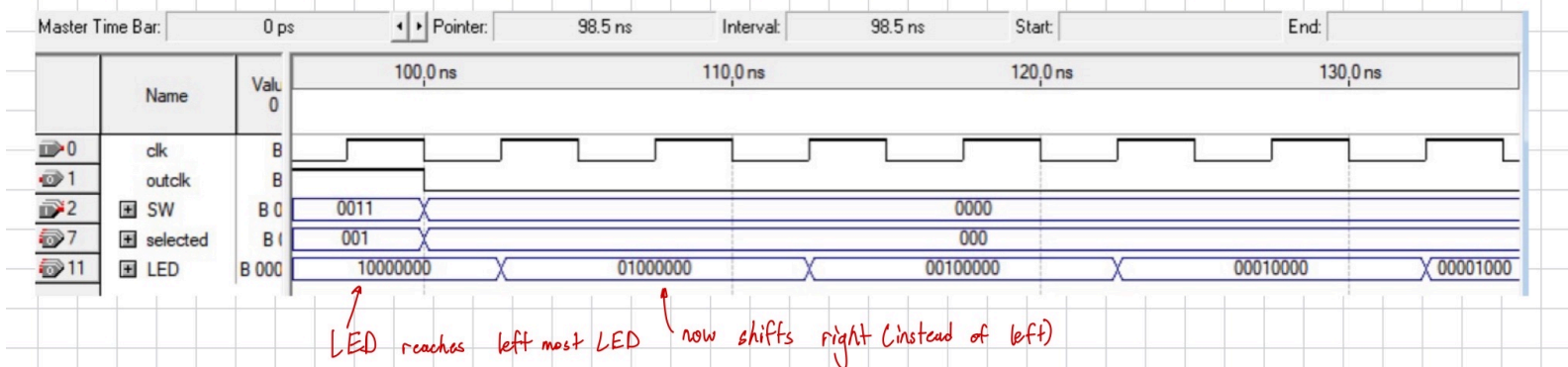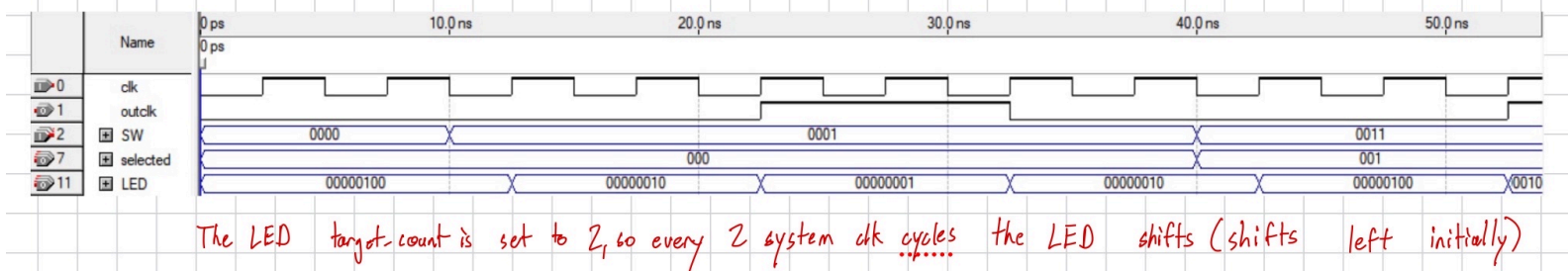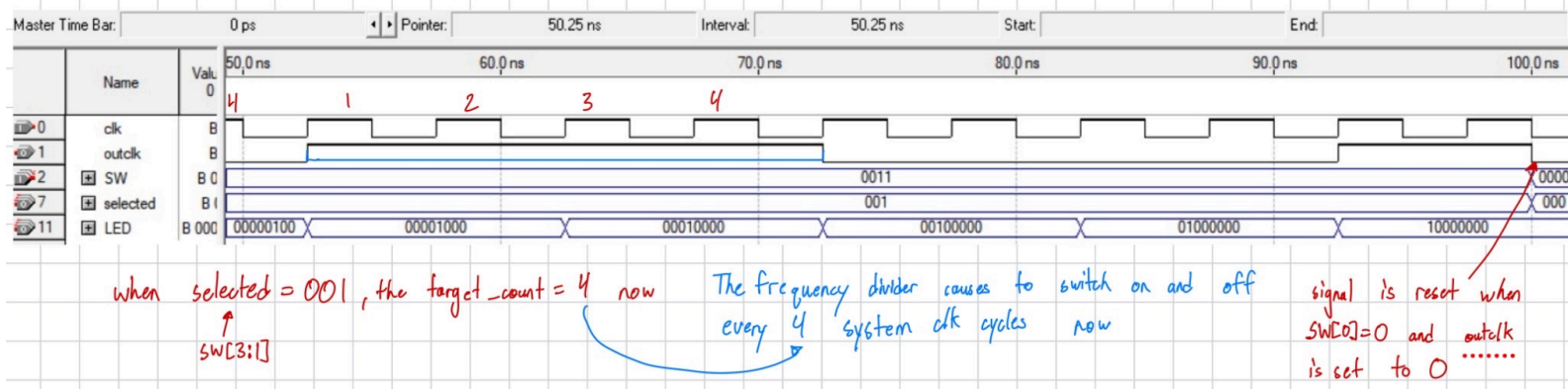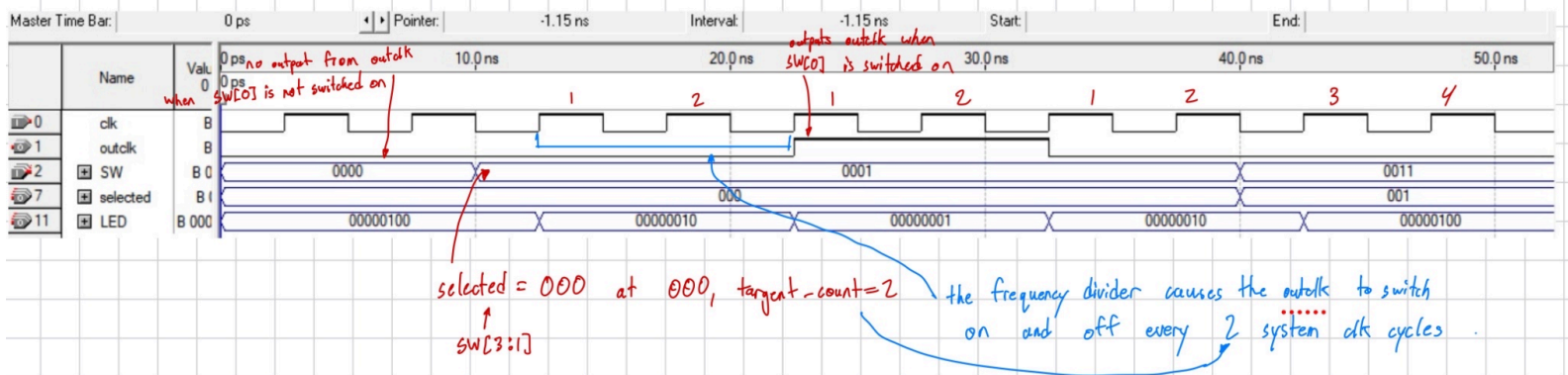1.   Where (which directory path) is your SOF file located, and what it is called

lincoln_lim_59122127_lab_1.zip\rtl

Basic_Organ_Solution.sof

2.   What is the status of the lab

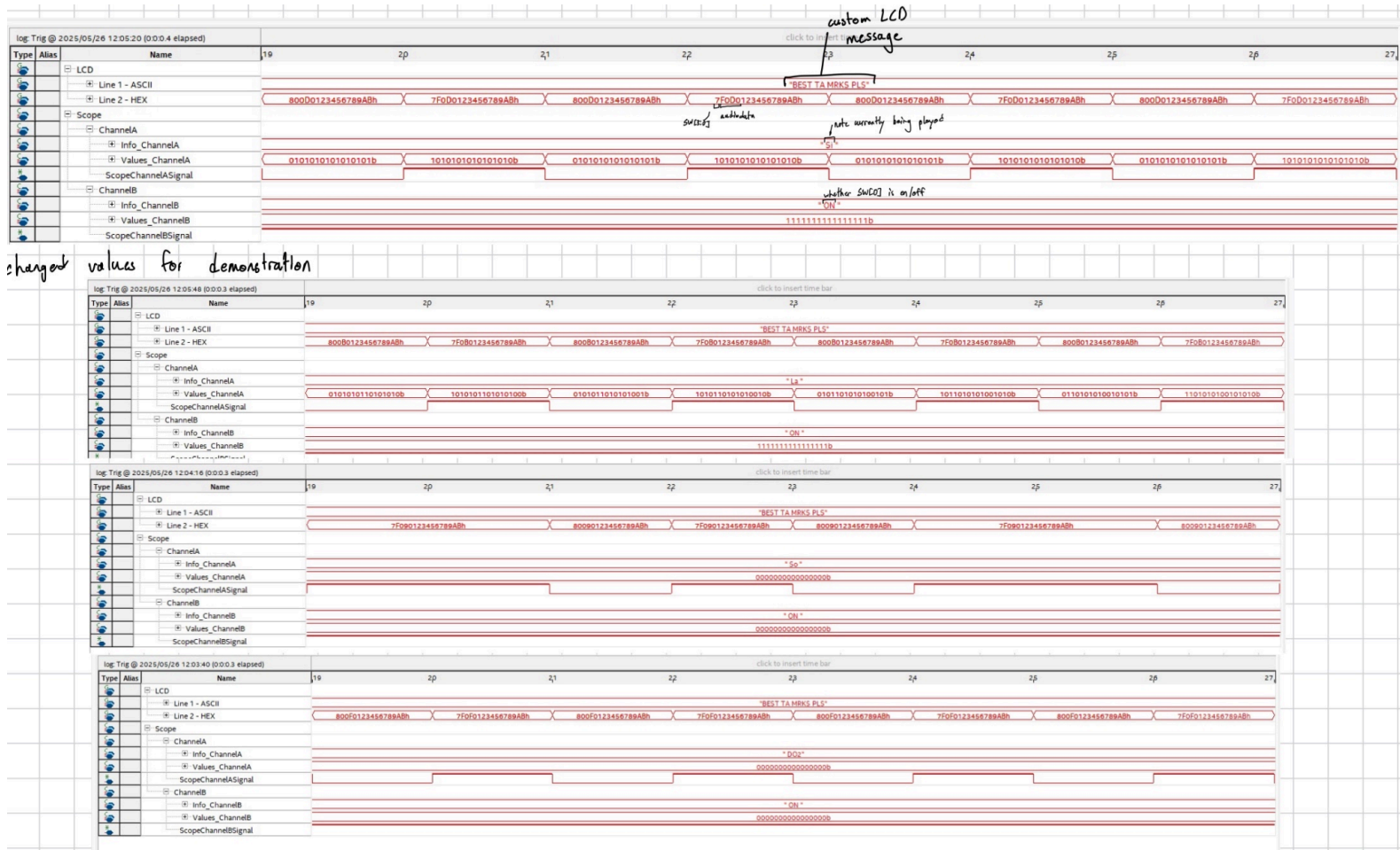Everything in the lab works as intended and as shown in the sample solution.

READ NEXT PAGE

3. Annotated simulation screenshots as required by the lab

adjusted parameters for simulation & demonstration purposes

Screenshot 1 annotations:
- no output from outclk when SW[0] is not switched on
- outputs outclk when SW[0] is switched on
- selected = 000 at 000, target-count = 2
- SW[3:1]
- the frequency divider causes the outclk to switch on and off every 2 system clk cycles

Screenshot 2 annotations:
- when selected = 001, the target-count = 4 now
- SW[3:1]
- The frequency divider causes to switch on and off every 4 system clk cycles now
- signal is reset when SW[0]=0 and outclk is set to 0

Screenshot 3 annotation:
- The LED target-count is set to 2, so every 2 system clk cycles the LED shifts (shifts left initially)

Screenshot 4 annotations:
- LED reaches left most LED
- now shifts right (instead of left)

Signal names: clk, outclk, SW, selected, LED

4. Annotated SignalTap screenshots as required by the lab

5. Information on how to run the simulations (i.e. where the files are located, which program you used to run your simulation)

For the simulation, I used lab1_simulation.v to run the simulation in Quartus 9.0sp2 and used the vector waveform file: lab1_simulation.vwf to simulate.

6. Any additional information that would be relevant for the TA marking your project.

I included a spreadsheet that answers the bonus question in the folder "doc" (same folder as this file)