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Project Report

COSC 250

The project was complete with no major issues. For the first portion of the project I reused the seven segment display from a previous lab, and added the additional six digits (A-F) so it can represent all hexadecimal digits. After I completed that I tested the display for all cases through four input switches. It is also worth noting I used the combinational analysis tool for building the display.

For the second part of the project, I needed to wire four JK flip-flops asynchronously. I at first had trouble determining which port was the input ports on the flip-flops, but I soon realized the clock was inputting to the incorrect port, I switched it and rewired it to the correct port. Then, as the circuit is asynchronous, I wired the Q' outputs to each clock inputs on the four JK flip flops. I also realized I had to wire the outputs to the inputs of the seven segment display as it counts down.

The circuit has been thoroughly tested, and it appears functional through all hexadecimal digits.