CSCE 312-503: Lab 4 Individual Submission

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Group number 27.
Group members are Oscar Leon and Rita Hernandez.

The parts of the design that I did individually were the following:

1. Microprocessor: I made the circuitry for the microprocessor that connects the IO unit and memory unit and executes the instructions from the CPU.

2. Tests and timing diagrams for the microprocessor: I tested the overall system and made sure that each operation was working as expected. I used wavedrom to create timing diagrams for the microprocessor.

Advantages, disadvantages, and difficulties: I felt that the easy part of designing the microprocessor was understanding what the instructions required and wiring up the respective components to achieve it. The difficult part for me was understanding what parts of the logic were supposed to go where, and since there was a lot involved with the IO unit as well, it was unclear at first what the limitations were for my role in the project.

Which team member impressed you the most? I would say that Rita's work on the FSM and circuitry for the last problem (extra credit) was quite fast and although she couldn't get it to work the first try, it was a good effort and she got a lot done in a short amount of time.