Report 6

ELEC 5200

Michael Katica

Roberto Sanchez

Sun Kwon

If this project taught our team nothing about CPU design, then I would be surprised. In fact, this is not the case. Our group learned specifically about CPU components, architectures and design philosophies. More importantly, I believe learning the process of hardware design of any kind was the most important take-away from this project. Seeing as none of our group members had any experience designing computer specific hardware, this experience will help our careers in the long run.

If we had to do something differently, it may be to simplify the ISA, and do a better job to arrange the instruction words to minimize hardware. Our ISA ended up forcing our design to be very complicated, and difficult to implement and test. We required 3 separate ALUs and 8 multiplexers in the design which made debugging a nightmare. As well, we should have done some review of VHDL, as our simulation did not work solely due to poor VHDL, and not a poor design.

Some advice for others doing this project: Spread your design evenly over the group, and evenly over time. I know as college students you may be prone to leave everything to the last day. Do not do that. The volume of work for this project is immense, and not spreading the load will not work out.