1. **What did you learn from this project?**

We have implemented a pipeline datapath without the forwarding part and hazard detection part. So in our test code, we need to insert stalls manually, but jump and branch instructions still not working well on the FPGA board. It is our first time to do these “huge” course project! about how to design the components of a CPU. By studying this project, we clearly understood the basic process of a CPU design, and how these CPU components work together. We also learned how to use software tools Modelsim and Quartus to complete the simulation part of the project. The last step is the most interesting and helpful. We simulated our design on an Altera FPGA board. We learned a lot how to work in this hardware and test out results. Integration the theory with practice is the best learning experience!

2. **What would you do differently next time?**

If we do the project again, we will try to spend more time on hardware debug where we face a lot of troubles. Moreover, if we have more time next time, we will try more instructions to test our CPU.

3. **What is your advice to someone who is going to work on a similar project?**

The main suggestion is to start early especially on hardware test, because this project is really huge and difficult! It may take longer time than you expect. If you cannot start early, please make sure at least you have enough time to finish the FPGA board part. This part is not easy, and during the test, you may always meet some troubles. Pay more attention to these FPGA board, I think some of them may not work well, and some of them cannot even download the codes. This project is much interesting but challenging. Being well organized and thoroughly verifying at every part will give you the best chance of succeeding.