Michelle Zhou, WORK LOG

MILESTONE 1 WORK:

Sunday, January 12

Met with team [3 hrs]

• We decided to build a accumulator based processor. An accumulator design will fit well with the 16-bit requirements. We then decided the eight registers that we need for the assembly users. And we listed out the instructions we may use in a table to determine the number of instruction formatting we are going to use, which includes R-Type and IJ-Type.

Monday, January 13

Met with team [2 hrs]

• We figure out how the memory would work and discussed to expand the instruction set and add more instructions that are helpful. Then we edited the instruction set.

Tuesday, January 14

Met with team [3 hrs]

• We discussed and write assembly language program demonstrating that your instruction set supports a program to find relative primes. After that, we put all the information we get into one file, edit and format it to get the final design document.

Wednesday, January 15

Met with team [15 min]

• Take a look at the design document and make a final version. • We assigned tasks for milestone 2. My task is to give a list of generic components specifications needed to implement your register transfer language

MILESTONE 2 WORK:

Friday, January 17

Met with team [50 min]

• We basically edit the design document according to the comments Robot give to us on Thursday including adding a cover page, changing the format of instruction table, adding a recursive fragment example in calling convention and working on explanation on how $ma works.

Sunday, January 19

Met with team [2 hrs]

• We continue edit the design document and almost finish all the requirements.

• We draw the memory map and discuss the RTL description of each instruction or set of related instructions.

Monday, January 20

Met with team [2 hrs]

• We gather all the RTL together in a table and finish all other tasks in the design document.

Wednesday, January 22

Met with team [10 min]

• Take a look at the design document and make a final version.

• We assigned tasks for milestone 3. We actually decided to continue work together instead of doing each part individually.

MILESTONE 3 WORK:

Sunday, January 26

Met with team[3hrs]

• We fixed all the problems that Robot pointed out for M2, including RTL and control signals.

• We discussed and draw the draft for datapath and check if RTL works in our design

Monday, January 27

Met with team[2hrs]

• We edit the design document for the datapath.

• We assign each team member's job on each lab.

Tuesday, January 28

Met with team[2hrs]

• We almost finish the design for testbenches for our components in Verilog and the design for all of the mux, ALU, adder, Memory, and Register File testbenches.

• We continue working on labs.

Wednesday, January 29

Met with team[2hrs]

• We continue working on labs.

• We are double checking the document and submit it.

MILESTONE4 WORK:

Sunday, Feburary 2

Met with team[2hrs]

• We first fixed all problems that Robot pointed out for M3.

• We then looked at our previous version of datapath and then deal with the clocking issue. After that, we work on the control bits and finite state machine.

Monday, Feburary 3

Met with team[3hrs]

• We are discussing about how each control signals work when all the instructions are run in the datapath we designed and fill in the finite state machine table.

• We start the tests necessary to verify the correct implementation of the control units.

Tuesday, Feburary 4

Met with team[40min]

• Final check for how each part is finished (especially tests) and finish everything left.

• We are meeting to make sure that everything is finished, and our journals and implementations are committed successfully.

MILESTONE5 WORK:

<u>Monday, Feburary 10</u>

Met with team[4hrs]

• We first fixed all problems that Robot pointed out for M4. For example, we edit the control signal diagram, added the test plan and unit test description and system test plan.

•We test the controls and start integration plan. Our new plan consists of four phases.

<u>Tuesday, Feburary 11</u>

Met with team[3hrs]

• We keep working on the integration test.

<u>Wednesday, Feburary 12</u>

Met with team[15min]

• We are meeting to make sure that everything is finished, and our journals and implementations are committed successfully.

MILESTONE6 WORK:

This milestone looks more like an individual work for us. I help to debug the software and hardware on Monday and Tuesday together to make sure that the output is correct. And then, I started to making PPT for our final presentation and writing the final report.