# **MILESTONE 1 WORK:**

## Tuesday 8, 2024:

- Reviewed design and example programs [1 hr]
- Met with team and add instruction description [1 hr]

Tasks for milestone 2 has not decided yet.

I did not do much work for milestone 1 because other team members used Teams during the break and I did not received notification from Teams until I check Teams Group when I come back from break. I will ask for more work to do on the following milestones.

# **MILESTONE 2 WORK:**

### **Thursday, January 11:**

- Met with Ethan to understand the processer logic and his prototype in a simulator [1 hr]
- Explore and deploy jupyter notebook to run the assembler Ethan has built. [30 minutes]
- Agnay and I were to split the RTL instruction breakdown while Emma and Ethan were to work on jump + return and the RTL component list. [30 minutes]

#### Saturday, January 13:

• Agnay and I met and discussed homework 13 to understand RTL better and assigned the exact workload split for milestone 2. [3 hrs]

### Sunday, January 14:

- Ethan committed the initial push for the quartus files and discussed the rough breakdown of how we would work through the verilog + unit testing on quartus on teams. [1 hr]
- Finished the second pass of the RTL instructions [2 hrs]

### Monday, January 15:

• Met with team members to correct RTL instructions and finalize the document. [1 hrs]

# **MILESTONE 3 WORK:**

# Friday, January 19:

• Reviewed design document and started working on spliting single cycle RTL to 17 categories regaring with ALU implementation. [1 hr]

#### Saturday, January 20:

• Started working on multicycle RTL with Srivasa. [1.5 hrs]

#### **Sunday, January 21:**

• Finished multicycle RTL. [2 hrs]

#### **Monday, January 22:**

- Cleaned up multicycle RTL instruction table. Make them in a good format. [2 hrs]
- Met with team. Discussed how we are going to do test, and how to split work. [1 hr]
- Check and fix multicycle RTL instruction problems. [1.5 hrs]

# **MILESTONE 4 WORK:**

#### Tuesday, January 23:

• Studyed on Verilog and started implement on module T\_ALU\_Complex logic, which is a decoder and a control unit. [1 hr]

## Wednesday, January 24:

- Completed module T\_ALU\_Complex logic. [4 hrs]
- Completed skeleton of T\_ALU\_Complex test bench. [2 hrs]

## Thurday, January 25:

Met with team to discuss work assigment. [30 mins]

## Sunday, January 28:

• Updated the new Signle Cycle RTL table and Multi Cycle RTL table since we greatly changed our design and instruction categories are affected. [1 hr]

### Monday, January 29:

• Started writting test bench skeleton for L\_Control, which is the new decoder control unit. (We greatly changed our design) [2 hrs]

### Tuesday, January 30:

- Met with Ethan to discuss about new design. [45 mins]
- Partially completed test bench skeleton for L\_Control. [3.5 hrs]

# **MILESTONE 5 WORK:**

## Thursday, February 1:

Fixed some problems with T\_L\_Control\_Flag. [1 hr]

#### Friday, February 2:

- Discussed unit testing strategy for control and logical sector. [1 hr]
- Discussed with Srivasa to figure out the details about how to write test cases for logical sector. [1 hr]

#### Saturday, February 3

• Discussed with Srivasa to figure out the more details about how to write test cases for logical sector. [1 hr]

# Sunday, February 4

• Started to fix issues in L\_Control and finalize tests on ALUOps. [30 minutes]

## **Tuesday, February 6**

• Started to write overall assembly program tests. [30 minutes]

# **MILESTONE 6 WORK:**

## Saturday, February 10:

• Wrote tests for the whole professor system to test PC related instructions. [2 hrs]

## **Sunday, February 11:**

• Fixed issuses in T\_L\_Control and finalized tests on ALUOps. [1 hrs]