

## COMP262-01

# CPU SIM Project: a PEP8 Virtual Machine SIMULATION–PART2 CODING of the SIMULATION PROCESS/PROGRAM

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Continue the coding of the Simulation program.

For this part (2), we will need the results of part 1: the FI (Fetch Instruction) stage method.

Now that you have completed Part1, please consider the following enhancement before starting with Part2:

1) Need to reset all global vars to their default values at the start of a new cycle. This could be done right at the start of the FI() method, since this stage is ALWAYS executed and is the first thing done...

2) Need to reset those CPU variables that may have been set in a prior instruction, i.e.: setting a value in the CPU.OS if the instruction is NOT unary AND resetting it if unary.

Not doing this will result in an incorrect CPU state for an unary instruction, showing a value for the CPU.OS when there should not be one.

3) Once you identify an instruction as Unary in FI(), just add code to set the var UNARY to true for the use of the other stages in the cycle

Proceed now to implement and test the DI (Decode Instruction) stage method

At this point the simulation will produce only a partial update of the CPU State, showing the results of FETCHING and DECODING the program instructions.

### **Deliverables**

The source for the program, with DETAILED comments indicating WHAT parts of the program are not working and what is left to be coded.