Final Project
ECE/CS 472/572
Simulation and the Jump

• Similar to last week, start the project by simulating the code you are given without making any changes.

• Once again, the first instruction you will be adding is the jump.
  • The added hardware should be similar to the single-cycle. But keep in mind what is different with the pipelined implementation (i.e. what stage the data is available to do the jump, flushing the pipeline, etc.)
Forwarding

• Figure 4.60 on page 375 shows the hardware necessary for adding forwarding.

• Read through 4.7 in the book to find the necessary logic for the forwarding module.
Stalling

- In the event of a data hazard, it will be necessary to stall.

- The hazard detection unit in figure 4.60 takes will be responsible for determining a hazard on a lw, and stall the pipeline by inserting no-ops.

- Refer to pgs. 372 and 373 for more info on the logic for stalling and how to insert no-ops.