

EGCP Project #4 Skeleton

The skeleton package I gave you for Project #4 includes 29 classes. In addition to the Assembler, 2 exceptions, MemoryModel, and 4 Instruction classes you've seen before, you should find:

a. Complete classes (I haven't cut anything from)

1. LoadBuffer – the Load FU
2. LoadEntry – A “reservation station” for loads
3. BranchPredictor – the BTB
4. CDB – just the data structure; all routines are elsewhere
5. ProgramCounter
6. RegisterFile – includes the reg-tag mapping array also

b. Partial classes (I cut out some/all)

1. IssuedInst (mostly intact, just killed a couple of methods)
2. IssueUnit
3. PipelineSim – mostly intact; a few methods removed
4. ReorderBuffer – I left shells for main two methods: *retireInst* and *updateInstForIssue*, which stores IssuedInst in ROB and updates its fields with tags and values.
5. ROBEntry – one row (one instruction) of ReorderBuffer
6. IntALU
7. IntMul
8. IntDiv
9. BranchUnit
10. FunctionalUnit – an abstract class holding some fields and methods common to all FU types.
11. ReservationStation – a single reservation station. A FU will likely have an array of these. TO INTEGRATE WITH GUI, just use 2 per FU.

c. GUI classes

1. TomasuloGUIAboutBox
2. TomasuloGUIApp
3. TomasuloGUIView
4. ROBRowGUI

This is just my design, and may not make sense to you, or the portions I gave you may not work well with your design. You are not required to use any of my code. It is provided to hopefully help you get started, but if it isn't helpful, don't use it.

Please let me know how I can do it differently to make things easier for future students.

