Machine Organization and Assembly Language Programming

Problem Set #7

Due: Thursday, February 25

This assignment is on pipelining. You should have read Chapter 6, Sections 1 through 6.

1. Exercises 6.2, 6.4 and 6.14 (data dependences)
2. Exercise 6.9 (Pipeline structure and control)
3. Exercises 6.15, 6.19 and 6.20
4. Recall the “instruction” $R_t \leftarrow R_t + \text{Mem}[R_s + \text{offset}]$ that you saw in your midterm. Why would it be hard to add this instruction to the MIPS pipeline?
5. Exercise 6.28