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" $R_t \leftarrow R_t + Mem[R_s + offset]$ that you saw in your midterm. Why would it be hard to add this instruction to the MIPS pipeline?

5. Exercise 6.28