introduction

Saman Amarasinghe and Daniel Jackson
February 6, 2008
welcome!

faculty

- lectures: Saman Amarasinghe and Daniel Jackson
- Java self-study stream: Sivan Toledo

teaching assistants

- Jongmin Baek, Erdong Chen, Harold Cooper, Alice Oh, PJ Steiner

lab assistants

- Sam Glidden, Holli Rachall, Mike Borohovski, Ben Gleitzman, Hank Huang, Karen Castelletti, Erek Speed, Lance Collins, Bill Magnuson, Asli Turgut, Chris Varenhors
objectives

what you should expect to get out of this course

fundamental programming skills

• how to specify, design, implement and test a program
• proficiency in Java and use of Java APIs
• use of standard development tools (Eclipse, SVN, JUnit)

engineering sensibilities

• capturing the essence of a problem
• inventing powerful abstractions
• appreciating the value of simplicity
• awareness of risks and fallibilities

cultural literacy

• familiarity with a variety of technologies (http, postscript, sockets, etc)
intellectual structure

three paradigms
- state machine programming
- symbolic programming
- object-based programming

pervasive themes
- models and abstractions
- interfaces and decoupling
- analysis with invariants

incremental approach
- concepts introduced as needed
- deepening sophistication as ideas revisited
your responsibilities

individual
- Java readings, exercises* and labs
- exercises* after each lecture
- six project labs
- three quizzes

participatory
- two lectures each week
- six two-week projects, each followed by grading meeting with TA

lab notebook
- items marked * plus:
- brief lecture feedback
- ongoing design work and reflection
grading policy

collaboration policy

• projects in pairs: assigned randomly, no repeats
• lab work individual: can discuss with friends, but write all code yourself

using available resources

• can use publicly available code, designs, specs
• cannot reuse work done in 6.005 by another student
• cannot make your work available to other 6.005 students

grade breakdown

• project writeups 54%
• quizzes 24%
• lab notebook 22%
what you should do

today
• complete the online survey

before Friday
• read over lab assignment
• Java reading and mini-exercise

before Monday
• lecture exercise

every lecture and lab
• bring your name card

please remember
• laptops closed in class