Computer Science 50
Programming Project

- Pre-requisites: CS 10 and CS 20
- Designed for CS pre-majors
- Basic theme: programming "in the large"
  - Includes working within a group
  - Focus is on object-oriented analysis (OOA) and object-oriented design (OOD)
  - Practice to implement/test large(r) systems

Individual part and group part

- Part 1 – learn about programming projects
  - Includes lectures, reading, homework, exam
    - Development Processes
    - Requirements Analysis
    - Domain Analysis
    - System Design
    - Implementation and Testing
- Part 2 – participate in a programming project
  - Complete 6 assignments as a group effort

About the group projects

- <u>Group sizes</u>: 3 or 4 people – no exceptions
  - Note: we will facilitate group formation this quarter
- <u>Project topic</u>: your choice, subject to approval
- <u>Expected complexity</u>:
  - 20-25 key concepts in the problem *domain*
    - Note: concepts are classes and interfaces in Java
  - Interesting relationships between the concepts
  - Lines of code will *not* be counted
    - But anticipate at least 5,000 lines of *well-written* code

Requirements

- You must monitor http://www.cs.ucsb.edu/~mikec/cs50
- Group project assignments – *50 percent* of grade
  - Posted on Project page – first assignment is already posted
- Meeting attendance/participation – *10 percent* of grade
  - Formal meetings with each whole group once per week (at least)
- Homework assignments – *15 percent* of grade
  - Handed out in lectures – must be own, personal work
- Exam – *25 percent* of grade
  - Wednesday, Feb. 17 – see required readings on the Syllabus page
- Questions?

Do *this* week

- Read chapters 1-4 and 40
  - In general, read ahead of the lectures
  - Future weeks: see syllabus for chapters to read
- Submit <u>CS 50 student survey</u>
  - Sooner the better, but n.l.t. Thursday, noon
- Attend lectures and *mandatory* 1st section
  - *Note: formal group/TA meetings will occur instead of discussion sections all future weeks*