CIS 540
Software Engineering Project I
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Information Form
- White sheet if you are already enrolled in both lab and lecture
- Green sheet if you are not
- You must have C or better in 500 or 501 (if you are required to take it)
- Project preference
- If you have problems, indicate your issues and check box

Lab changes
- You will only be allowed to change labs if you find a replacement – someone who wants to do the opposite switch.
- You must give me, by this Thursday, a completed form (purple sheet) with the names, email and signatures of individuals involved and the switch desired

Course Goals
- software engineering
  - concepts
  - terminology
  - object-oriented development
- team development
  - group effort
  - documentation
  - robust software
- C++
  - Minimal competency

Course Conduct
- lectures
  - TR 8:05-9:20 – think of it as your job
- texts
  - you are responsible for reading assigned pages
- labs
  - presentations and assignments
- team
  - three presentations

Average of three grades
- Your final grade will be the average of the following three grades (if you have C or better in all three areas)
  - Individual
    - homework, pop quizzes, 2 exams, final, labs, absences
  - Team Points
    - documentation, presentations, team web page
    - weekly percentage assigned by team leader
  - C++
    - Assignments, C++ exams, C++ on final, pop quizzes
Section Grading

- total points
  - indpts - 5*absences
  - avg wk% * team pts
  - C++ asgmt, C++ exams, C++ on final
- 90% or above - A
- 80% or above - B
- Grad students must have above 80% in all
- Late Assignments
  - 10% after start of class
  - 10% each additional day

Unexcused Absences - 5 pts each

- send email to dag@cis.ksu.edu before the absence to avoid 5 point penalty
- you are still responsible for making up work

Information

- www - course web page
  - http://www.cis.ksu.edu/~dag
  - lecture slides
  - calendar
  - syllabus
  - grades through kstate online grade system
  - Listserve - no changes to email addresses

C++ Assignments

- To make sure all students have minimal skills in C++
- Introduce UML notations
- Introduce PSP logs
- Individual Assignments
  - cheating (i.e. not developing algorithms, code, etc from scratch by yourself) will be punished

Team Projects

- 1 team leader; 3-5 members
- everyone does everything
  - -50 pts if you do not have significant code in team project
- 3 presentations per semester (N24)
- complete life cycle - req through delivery
- complete documentation - on web page and on a CD for each presentation
- assignments by team leader - on web page

Team Progress

- One of my responsibilities is to try to ensure that each team makes good progress
- I may assign re-presentations, re-demonstrations
  - this is not punishment
Labs

- 2 hours
  - TA presentation
  - individual or group task
- Tools and Techniques
- Attendance and Participation Required

Exams

- two midterms (100 points each)
- one final (200 points)
- crib sheets
  - 8.5 by 11 inches
  - handwritten
  - turn in with exam
- 1 each midterm, 3 for final

Questions or concerns

- send email - dag@cis.ksu.edu

Object-Oriented Software

A model of the real world

Object-oriented

- Objects encapsulate data and functions.
- The world is modeled by the objects
  - each significant object in the world has an object in the software

Object/Class

<table>
<thead>
<tr>
<th>object name</th>
</tr>
</thead>
<tbody>
<tr>
<td>type dataname</td>
</tr>
<tr>
<td>ret-type fnam(param)</td>
</tr>
</tbody>
</table>

Types of attributes and return types of functions are not required on O1 assignment
Object diagram – multiplicities

OO Requirements Analysis

- Identify the entities/objects in the real world that need to be modeled in the software.
- See SOS section 8.2, 11.2.1, 11.3(not 11.3.1), 11.4

Identifying Entities

- Starting with a textual description (e.g. an SOW)
  - list nouns
- using domain knowledge
  - add other entities
- abstract activities
  - levels of abstraction

See OOA help materials

O1 assignment

- Draw Object Model for clothing store using Rational Rose (this week’s lab)
- See assignment description on web page
- Due Thursday, Sep 5th

Reading assignments

- Thurs, Aug 27
  - Pressman, pp 539-559
  - SOS, section 8.2, 11.2.1, 11.3(not 11.3.1), 11.4
- Tues, Sep 3
  - Pressman, pp 1-51

Lab meets this week