

**CSE 403, Winter 2007**  
**Homework Assignment #1: Project Proposal ("LCO")**  
**Due: Tuesday, January 9, 2006, 11:59 PM; 20 points**

**Assignment Description:**

In this initial assignment, you will outline an idea for a roughly eight-week programming project (including design and testing) that you'd like to undertake in this course. A project proposal like this is sometimes called a Lifecycle Objectives or "LCO" document.

**This assignment may be completed alone, or with one or two partners.** If you work in a group, please clearly place all partners' names at the top of your documents.

You will present your LCO material to the class after turning it in. Everyone will then have the opportunity to review the material and vote on the projects they feel most compelling and feasible, and that they would most like to work on. Some projects will not go beyond the presentation stage, and others will be staffed and actually implemented. At that point, we will reorganize you into larger teams to actually build those products.

The following are the constraints for types of projects:

- The project may not be a video game. (It can have game-like elements, such as a charades / Pictionary applet, but it may not be a traditional video game such as Mario, Pac-Man, Half Life, role-playing, etc.)
- The project must involve communication between two or more computers. In other words, it should be network enabled, or connect to a remote database back-end, or be a client-server application, etc.
- The project should be of suitable size and scope that it can be completed in the time allowed; not much more or less.
- The project must be one that you are starting essentially from scratch; you may not build on a significant amount of code you or others have written outside this course.
- You may not be receiving monetary compensation or credit in another course for working on this project (no double-dipping).

The project proposal you turn in should consist of two documents:

1. A Word (.doc) or PDF document containing a written **project description**.
2. A set of **slides** in PowerPoint (.ppt) or PDF format to use in a presentation to pitch your project.

The preferred names for these files are *YourProject'sName\_proposal.[doc|pdf]* and *YourProject'sName\_presentation.[ppt|pdf]*. For example, if your project is called "SuperAwesome", your file names might be called SuperAwesome\_proposal.doc and SuperAwesome\_presentation.ppt. You aren't required to use these file names, but organizing the files will be easier for the instructor and TAs if you do.

Each of these two documents is described in detail on the next page.

## 1. Project Description:

Organize your project description document into the following five sections:

### 1. Operational Concepts

What is your project, on a high level? Who is it for? Why is it interesting? Describe the top-level system objectives, differentiators, and scope of your project.

### 2. System Requirements

What are the essential features of your product? Describe it from the user or customer's perspective, not necessarily from a computer scientist's. You may wish to include a (rough) drawing of the appearance of the software.

### 3. System and Software Architecture

How are you going to implement the preceding functionality? What programming languages, tools, and/or data sources (roughly) do you intend to use? Describe at a very high level the components / modules that will interact in your system. A diagram is recommended. (Do not discuss actual code details, classes, or object-oriented design here.)

### 4. Lifecycle Plan

What is your (rough) schedule for developing this product? What are the major work goals, and when should each one be tackled and completed? How many workers are needed, with what expertise, and roughly how will their time be divided?

### 5. Feasibility Rationale

What leads you to believe that the project will be completed successfully? What risks exist? What assumptions are being made? What features have been cut or shortcuts are being taken?

Your document should be **at most four pages** in length. Try to be complete yet concise. You should have at least one figure or diagram in your document to receive full credit.

## 2. Slides (Presentation and Sales Pitch):

Your presentation slides should summarize the preceding elements for your product. This is the "sales pitch" that you will give to the class to try to make them excited about your project. Include a title slide that states your project's name and authors. You should have at least one figure or diagram in your slides to receive full credit; this can be a diagram taken directly from your project proposal document described above.

Your delivery must take **at most 5 minutes**, so be rehearsed and prepared. (It is unlikely that you'll need more than 5-6 slides for your presentation, depending on their content.) All group members must participate in some way in the presentation. The audience will be asked to rate your presentation on various categories related to the preceding information.

## Submission and Grading:

Submit your documents electronically through the link in the Homework section of the course web site. Only one copy of the documents should be submitted for each group. All group members' names must be clearly visible on all documents. Hand-delivered, paper copies, or emailed copies of work are not accepted.

Your grade is not based upon whether your project is chosen by others to be implemented. It is, however, based upon completing the requirements asked previously with a satisfactory level of care and detail. We will look to see that you have made reasonable judgments in your project and presented your proposal well.