

Introduction to Homework 3

The purpose of homework 3 is to develop and present the first Life Cycle Objectives milestone review (LCO1) for a proposed product. You will be working in pairs for this homework. Talk to Shane or send him an email (shanec@cs.washington.edu) to tell him who your partner is before the end of section meeting on Thursday.

The fundamental goal is to get good ideas out on the table and expose them for others to see and think about. Your primary job in the LCO is to describe the product so that people understand what it is and to describe the architecture so that it is clear that the system can be built.

You will present your LCO material to the class after turning it in, and then we will reorganize into larger teams to actually build those products that you feel are the strongest and most interesting candidates.

Outline

We are following a spiral life cycle model in the activities of this class. Much of what we have done so far is aimed at basic risk reduction (providing a chance to learn the tools and calibrate our sense of what is possible). You can think of our work to date as an early and informal turn around the center of the spiral.

The next turn around the spiral is this homework. The milestone at the end of this turn is the Life Cycle Objectives Review #1. This review is a tool to help you and the other designers and developers in the class decide which projects are interesting and practical. Some projects will not go beyond this stage, and the others will be staffed up and implemented.

Your grade on this homework is not determined by whether or not the project goes beyond this step. A good LCO review that clearly identifies the benefits, risks and costs is valuable in either case. We will be looking to see that you have addressed the identified elements and have made reasonable judgements concerning them. Refer to the lectures and the Boehm paper for more information about the content of the LCO review.

Remember that this presentation is the basis for each of you deciding which projects you would like to work on. You will indicate preferences after these reviews and I will assign teams based on those preferences.

Life Cycle Objectives

The generic elements of the Life Cycle Objectives milestone are:

1. Operational Concepts - What is it?
Top level system objectives and scope
2. System Requirements - What does it do for us?
Essential system features at an appropriate level
3. System and software architecture - How?
Support analysis of feasibility at this level
4. Lifecycle plan - Who wants it? Who'll support it?
Identification of the major stakeholders now, future
5. Feasibility Rationale - Is this really true?
Evaluate conceptual integrity and compatibility

Deliverables

1. An overview presentation. A set of Powerpoint presentation slides that summarizes the LCO elements for your product. This is the pitch that you will give to the class.
2. A written analysis of the LCO elements. This should address each of the five LCO elements listed above, as appropriate for your product. This should be 3 to 5 pages long, no longer.

Reference

Anchoring the Software Process, Barry Boehm, USC
<http://citeseer.nj.nec.com/boehm95anchoring.html>

Turnin

Please have one person do the turnin so that both files from your group are in the same place.

This homework is due before midnight, Tuesday April 22.