Homework 2

The purpose of this homework is to accomplish the detailed planning and design required for the Lifecycle Architecture milestone.

The results of this work will be presented as the Life Cycle Architecture milestone (LCA). Refer to the lectures on the LCA, system requirements, and design, as well as the various reference papers and web pages, for background material on the content of this review.

The homework is due before 10pm on Tuesday, February 1st. All deliverables should be turned in by just one of the team members. We will schedule 25-minute sessions throughout the day on **Wednesday, February 2nd** for LCA reviews with each team. (Instructions on how to turn in and how to reserve a session for your team will follow as the time approaches.)

Deliverables

Much of the material for this review is an elaboration of the material that was written for the LCO review. Feel free to draw on that as a starting point but do not feel compelled to stay too close to it, especially if you feel like changes are necessary to improve its focus and/or scope. Since you are defining the actual product to be built now, the result of the LCA milestone should leave fewer options and open items, and contain more decisions and detail.

We will expect to see the following documents:
1. Overview presentation. A set of Powerpoint presentation slides that summarizes the LCA elements for your product.

2. Specification document. This document should accurately reflect the product you are building, from the point of view of both the client user and the product administrator. See the lectures and the below referenced Spolsky article for suggestions on content. This is the point at which you get to say "This is our customer and this is what our product will do for that person."

3. Architecture document. Definition of the system and software components. This section should clearly identify the modules and interfaces between modules required to implement the system. Difficult or high-risk areas of the design should be clearly identified along with the analysis showing why they will not be "show stoppers" for the project. This section should include both the design of the system that is seen by the user, as well as all backend / administrative modules. Good interface definitions are very helpful in shedding light on the entire design.

4. Schedule and task assignments. Milestones, task descriptions, and the specific team member responsible for each task. This should reflect your actual plan of work, possibly including items that your team has already finished (e.g., while preparing for the LCA milestone).

Note: Some of these issues we haven't covered in class yet, so it's okay even if they sound unfamiliar to you at this point. By the time the LCA milestone arrives, we expect to have discussed in class all the necessary parts.

References

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

"Painless Functional Specifications", Joel Spolsky
http://www.joelonsoftware.com/articles/fog0000000036.html

"Software Architecture", David Garlan
http://www-2.cs.cmu.edu/afs/cs/project/able/ftp/encycSE2001/encyclopedia-dist.pdf