H&SS Information Systems
Carnegie Mellon

67-373 Software Development Project

Spring Semester, 2012

Phase 3 - Design and Construction of Stage 1 Deliverables

DUE Thursday, March 22 at 11:30am

NOTES: During this phase, your team must appoint a new Project Manager. Mid-semester project reviews will be set for Friday, March 3.

In this phase, you will complete your design and implement the features you identified in your detailed implementation plan for this phase. Your deliverables include a prototype that clearly demonstrates your project's overall design and look-and-feel with main user interface features and navigation in place. Main functionality, as indicated in your project plan, should be demonstrable. Your prototype will be evaluated by other members of the class. To a large extent, the success or failure of your system will be determined by the quality of your interface.

Your interface should follow the basic principles of good user interface design. It is a good idea to get lots of feedback from TAs, other class members and other interested parties.

Complete one or more heuristic evaluations of your site design. Unless you have good reason to do so, your implementation should not deviate in substantial ways from the information architecture, state transition design or web site map you proposed earlier.Plan carefully to allow time to complete this important quality assurance task.

During this phase, your team will be assigned to review the project plan and prototype of another team's project. One or more teams will review your project.

If, for any reason, there has been slippage in your plan or you are not able to follow your implementation plan, you must clearly document why this is so and provide an updated plan for successful completion of your project.

The project report must contain the following sections. Weights for credit are shown in parentheses. Your work must be complete, correct, convincing and in conformance with the instructions and guidelines given in the Phase Report Format and Professionalism section of the class syllabus.

1. Executive summary. (described in class syllabus)

2. Mid-semester Review of System Vision, Project Plan and GUI Prototype. (25%)
Review your system vision, project plan and system prototype with your assigned partner team(s) and the assigned faculty advisor. Conduct your review professionally and plan for a one-hour review of your project. Your objective is to seek honest analysis and feedback from your reviewers. Have an agenda,

and be prepared to discuss any and all details of your project's scope, vision, complexity, design and implementation if asked to do so.

This can be a very valuable session for your team if you are well prepared and listen carefully to the feedback you receive. Be sure to have a member of your team act as recorder of the meeting. Each member of the evaluation team(s) must leave you a completed review form during your evaluation.

Submit a report of the review of your project - when and where was it conducted, who attended, the main issues raised, the results of the review, and how the comments and feedback you received will influence the design or implementation of your system. Your report will be evaluated on it clarity, presentation, attention to detail, specificity and usefulness. Attach the individual evaluation forms (or copies thereof) in an appendix to the report.

3. Implementation Status and Updated Task List. (15%)
Clearly indicate which intended use cases or functionality have been fully or partially implemented, and which remains. Clearly identify and explain any deviations from your implementation plan or task list. Specifically address all project slippage - expected, but incomplete, work items (actual vs. estimated). Discuss how you will make up time lost on this phase due to unforeseen design, implementation, management or quality issues.

Update your task list for the upcoming phases. Identify which team member(s) will perform each task or lead the performance of each task during the next phase.

4. Updated Architecture and Design Documents. (15%)
Since requirements can evolve as your understanding of the system improves, update previous documentation (use cases, class model, data dictionary, test cases, etc.) to reflect the current state of your design. Do not actually replace previous documentation, but instead, provide replacement pages (clearly labeled, showing date of updating), that could later be merged into your final documentation.

Test cases must be modified to reflect comments from faculty and/or other reviewers. Any additional use cases added must be accompanied by test cases. Any use case that has been modified must have revised test cases, as appropriate.

5. Detailed outlines (Table of Contents, section headings, section subheadings) for final system documentation. (20%)
Two levels of final system documentation are required - a user / administrator manual and a technical manual. Your outlines must each include a Table of Contents clearly indicating the organization, section headings, and subsections of your final documentation.

a. The user / administrator manual contains everything the user or administrator needs to install, use, uninstall (if appropriate), and maintain your system. The user manual also contains help (provide detailed outline of topics) and instructions for nonfunctional items, like backup, security, restore, registration, and so on. Select media appropriate for your user documentation; your final user documentation may be hardcopy, online documentation, training video, or any combination.

b. The technical manual contains everything needed to understand the design and workings of your system. This is the documentation that you would pass along to another team, if needed, to maintain or enhance your system in the future. Typically, technical documentation would include programming

standards, file naming standards, use cases, data models, data dictionary, site map, description of code, and documentation of key design and implementation details.

6. Plan for user testing. (10%)
Document your plans for user testing. Describe all techniques or protocols you will use, who will be your test subjects (how many, what demographics, how will they be recruited). Describe how you will execute these tests; provide forms to be used, descriptions of structured interviews, etc.

7. Project Management Section. (15%)
a. Time Accounting
b. Feasibility Update
c. QA Manager's Report
d. Project Metrics
e. Risk Management
f. Problem Status

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