CSE 403, Winter 2007
Homework #5: Final Product Release ("Final"); 100 points

Due: Sunday, March 11, 2007, 11:59pm electronically
(weekly checkpoints due Sun Feb 25 and Sun Mar 4 11:59pm)

Assignment Description:

The fourth and final milestone you will submit for this project is the "final product release." Your product is to be finished and polished, reflecting many or all of the features listed in your SRS and your Zero Feature Release schedule. Submit or provide the following items:

A. Binary Distribution

The binary distribution contains the resources necessary to run your system, preferably a single compressed archive or self-installing executable file. If your system is entirely web-based, its binary distribution may consist of the site being up and running by the due date.

This item will be graded on whether it reflects substantial work and effort on the part of your team, has a solid and polished user experience, and successfully implements the usage cases you have described in previous phases. Your product need not necessarily be 100% bug-free to receive full credit, but any known bugs should be documented. Your system should be robust so that errors occur gracefully as much as possible.

B. Source Distribution

The source distribution contains all source code and other resources that were created by the development team. These resources should be bundled into one or more compressed archives. Assume that this item is being prepared for one or more developers who would pick up development where you left off.

This item will be graded on whether it demonstrates the following attributes:

- work and effort
- well-designed according to the heuristics we have learned in class
- making use of design patterns as appropriate
- being otherwise elegantly and robustly designed
- documented using comments on each file and significant method as appropriate
- general cleanliness and elegance of the code

Since the code is to be submitted in a state suitable for being turned over to other developers, you should document it sufficiently so that they could read and understand it. This includes summary descriptions of each file along with comments on methods and complex sections of code as appropriate.

C. Testing Resources

Your testing resources include any unit tests, automated testing facilities, and ad-hoc testing plans you have created for the quality assurance of your project. You are required to administer unit testing over a significant portion of your application's model code using a framework such as JUnit, NUnit, JsUnit, PyUnit, or similar.

To receive full credit you must also conduct some sort of additional testing; for example, you could perform extensive documented ad-hoc testing using clearly defined test cases and scenarios, or you could create automated UI tests using a framework such as Selenium. Part of your grade for this item will depend on your choosing a reasonable subset of functionality to test and choosing effective test cases (in number, scope, and coverage) to ensure the quality of the implementation of that functionality.

D. User Documentation

Your product should contain documentation explaining the usage of the system to the user. As in the previous releases, this documentation is directed at a user and not at a developer, so it should focus on the user experience and not on the system's implementation. The documentation will be graded on whether it covers all major areas of usage of the system as well as its quality and completeness. Some of this documentation may be integrated into the product itself, but this should not come at the expense of a solid user experience.

E. Updated Design Documents (UML Class Diagram and Sequence Diagrams)

On real software projects, design documents are "living" documents that must be updated to stay in sync with the code that is being written. For this phase you should submit updated versions of your UML class diagram and sequence diagrams from your SDS phase. These updated documents should reflect the actual code that has been written for your project. (The closer your actual implemented design is to your original SDS design, the less work to do.) These documents will be graded on whether they do in fact match the design and flow of your source code as turned in, on their adherence to UML syntax as taught in class, and on the soundness of the underlying design they depict.

F. Customer Meeting

During some portion of this phase, your group should arrange to meet with your customer(s) at least once to discuss its progress. This meeting will count as a small portion of your grade for this phase. Your group should come prepared to discuss what has been done, what is left to do, what is likely to be left out, any current problems or risks, and some specific questions you have for the customers as the release draws near.

G. Demonstration/Presentation

During the final week of the school quarter, each group will give a presentation demonstrating its project. This presentation should be roughly 15 minutes long. You do not need to submit slides for the presentation but may do so if you like. The bulk of your presentation should cover a demonstration of the usage of the project itself. For full credit, at least three (3) of your group members must participate in the presentation. Additionally, for full credit you must in some way involve the audience in your presentation, such as by asking them questions or asking someone from the audience to help demonstrate the project.

H. Weekly Checkpoints (2)

In addition to the preceding items, the following will be checked on a weekly basis every Sunday night. There will be two (2) such checkpoints, on **Sunday February 25** and **Sunday March 4**. At each checkpoint the following items will be examined for grading purposes:

- **Source Repository**: The grader will count the number of files and lines present in the system, as well as the number of lines modified, and log your group's development progress. A significant amount of progress should be present each week to receive full credit. Any code not checked in to the repository by Sunday night will not be seen or considered.
- **Bug-Tracking System**: The grader will examine your bug-tracking system to ensure that it is in use and relatively up-to-date. Your project's bug-tracking system (as described in your Zero Feature Release) should be kept current as you work on your project. Initially it should have bug entries for all known bugs in the system, as well as entries for all currently incomplete features that are to be finished by the end of the final release. Part of your grade will reflect whether these bugs are present, complete, and contain the proper information such as severity and assignment to specific developers to fix them.

Submission and Grading:

If you choose to turn in your final documents electronically, please submit them in a compressed format such as ZIP; if necessary you may also turn them printed pages to the instructor. For example, if your project is called "SuperAwesome", an acceptable file name might be `SuperAwesome_final.zip`. You may receive a deduction if you turn in clumsily named or organized files. Place your project's name and all group members' names atop each document. Only one copy of the documents should be submitted for each group.

Any electronic resources connected or referenced by these documents should be available at the moment the documents are turned in, so that grading can occur promptly after your submission. You may receive a deduction if the grader is unable to reach resources named in your documents.