**Instructions**

Final Project

**Subject**: Final Project submission details

**Due**: 5/3/16 … our final exam slot (7-9p).

**Summary**: You will create a software product in a team environment. We will use an Agile development process with elements of Scrum and XP. There will be two sprints (or iterations). The first iteration (or sprint) will focus on delivering a minimal product. The second (final) iteration will focus on enhancing the user interface and adding desired features. We will use the features (stories) defined in HW2. The first sprint begins 5-Apr and ends 19-Apr. The second spring runs from 19-Apr to 3-May. We will have weekly reviews in class and iteration planning meetings on 5-Apr and 19-Apr.

**Details**:

You will be expected to deliver the features defined in your HW2 SRS submission. If you encounter a technical or constraint, you can remove features. However, you must get my approval during a weekly review. It is preferred that you decide to exclude a feature during the iteration planning sessions. You will be expected to justify any modification to the requirements during the final presentation.

Here are the major breakdowns of the project and their grading weight.

Presentation (40%):

Each team will present a live demo of their product on 3-May. You should demonstrate all of the externally visible features of the product. Plan ahead, practice, prepare.

In addition to the demo, you will present a summary of your development process. This includes

1. A review of your initial requirements and any modifications (with justification).
2. A summary of technical barriers you encountered and how they were overcome.
3. A summary of the system configuration (dependent software, platforms, etc.)
4. A summary of your acceptance tests results and testing framework.
5. A summary of your coding style.

You will submit the presentation materials and source code package through Sakai. Your presentation slides should be in PPT or PDF. Remember to allocate a task during the 2nd sprint to complete the presentation materials.

Each team will have up to 30 minutes. The total exam period is 2 hours so this leaves a 30-minute buffer. Our final exam period is 7-9p on 3-May.

Development (40%):

*Process*: We will use an Agile development process. We won’t have detailed design or requirements documents. However, you must still maintain a list of features, tasks, and acceptance tests. Track who (or what pair) implemented what feature/task and how (or what pair) validated the code. You should be prepared to submit a log of acceptance tests.

*Testing*: Each feature must have an associated acceptance test. Remember, a feature must be testable! You are not required to use test-driven development (TDD) explicitly though I encourage this development strategy. Measure your statement coverage. Are you at 100% statement coverage? 100% statement coverage is expected. Any deviation must be justified. 100% branch or conditional coverage is desired but **not** required.

*Coding*: Define a coding style to be used by your team. Your team is encouraged to use the same coding style. This will improve coding efficiency and inspections. Your coding style should define commenting protocols. We will not produce detailed design documents in Agile so ‘the code is the documentation.’ Effective comments make this possible. Select a commenting style that permits auto-generation of developer’s documentation (e.g., *Javadoc* or *Doxygen*).

You are not required to use a specific language. Select the most efficient and effective language (or languages) for your team. I can provide direct coding support for C/C++/Python but can help with design for any OO language.

Teams shall use *BitBucket* collaborative version control system. These platforms can handle HTML source code documentation, too.

Reviews (20%):

We will have weekly reviews (scrums) to access progress within each iteration. All members are expected to participate in this process. Each team will give a briefing in class stating progress and roadblocks. Other teams are expected to listen and, when possible, give helpful feedback. Each team will hold an iterative planning meeting bi-weekly (5-Apr, 19-Apr). This will be a private meeting between team members and the instructor.