Project Overview

Project

- Team project – typically 6-8 students per team
- Given a set of basic requirements
- Opportunity to practice
- Process should start with XP
- Must document process you use
- Must convince instructor you follow the process you documented

Project lifecycle

- Propose project
- Form team
- Design and Develop
- Deliver code, tests, documentation
- Graded on

  process during development + quality of what you deliver = process + product

Project meta-requirements

- Automated tests (ideally test first)
- Must use UML to document
  - Consider object-oriented language
- Must practice proper configuration management (can use some DVCS, such as Git, SVN)
- Must manage requirements
- If project is successful, must have a plan for how to keep it going after the end of the semester

Project proposal parts

- Description
- Motivation
- Comparison with similar software
- Languages, libraries, frameworks, platforms
- Risks/challenges
- User stories and iterations
- Meeting schedule (6+ hours/week of work)
- Skill sets
- Process
- Tools

Proposal audience

- Must convince instructor and fellow students
  - What do you want to build?
  - How? What plan to follow?
  - Can you do it? Is the plan reasonable?
  - What will you get out of it?
  - Will it be successful?

Project proposal

- Can include parts of final documentation
  - Analysis of problem, users
  - Architecture, technology
- Plan, not reality
  - Schedule
  - Risks, and how to deal with them

Grading

- Homeworks – 25%
- Project – 45%
- Final exam – 25%
- In-class presentations – 5%

iHealth

- iHealth is a medical application that provides patients with a means to keep up with their medical history and records as well as communicate with their doctors, including selecting which doctors to be their primary caregiver, seeing and sharing satisfaction results, and other tasks.
- iHealth is also an interface for medical staff from various locations. It allows the staff to keep track of their patients through messaging capabilities, scheduling of office visits, diagnoses, prescribing medication, ordering and viewing lab results, among other functions.
- Privacy and security of patient records should be ensured.

Requirements Introduction

- This project involves the development of an application through which doctors can obtain and share essential patient information and can view aggregate patient data. Currently, access to a patient's history regarding previous medical problems, previous surgery, medications, allergies and other factors is often difficult or obtainable only from a patient's recollection. Now, as more hospitals and doctor's offices are automated, this information is available electronically. However, it is not accessible by other doctors, and is often only viewed through some proprietary software so it can not be shared.

Expected Final Product

- The final product is a site where health care workers can access important patient information, the non-emergency access can be controlled, and all access would be tracked.
- Security and privacy of such a system is of paramount importance. HIPAA rules protect patients' information and also allow a patient to dictate who can access this information.

In Class Presentations

- 2 groups per week
- Your unique features/ angles/ perspectives
- Iteration review
- Progress report
- Interesting Findings/ Problems Met/ Solution Discussions