The Unified Process, Agile Development, and the Course and Classroom Projects

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Classroom Project

• Software to support cooperative education faculty advisors
• Student Information Form
• Appointment scheduling
• Site visit scheduling
Course Project

• On-line competitive Sudoku
  – Framework to support other types of puzzles?
• Tamper-proof timer
• Hints to players available
  – Consequences of using hints for competition
Course project schedule

• First iteration (Inception)
  – Midway report (10%) due October 3
  – Final report (20%) due October 17
• Second iteration (Elaboration 1)
  – Midway report (10%) due October 31
  – Final Report (20%) due November 14
• Third iteration (Elaboration 2)
  – Midway report (10%) due November 28
  – Final report (20%) due December 12
• Project as a whole
  – The remaining 10% of the project grade will be based on an assessment of the project as a whole and each team member’s contribution to the project
The Unified Process is:

- Use-case driven
- Architecture-centric
- Iterative and incremental
UP Disciplines (Review)

- Business modeling
- Requirements
- Design
- Implementation
- Testing
- Deployment
- Configuration and change management
- Project management
- Environment
UP Phases (Review)

• Inception – Lifecycle Objective Milestone
• Elaboration – Lifecycle Architecture Milestone
• Construction – Initial Operational Capability Milestone
• Transition – Product Release Milestone
UP Guidelines for Success

- Attack major risks early and continuously
- Ensure that you deliver value to customer
- Maintain focus on executable software
- Accommodate change early in the project
- Baseline an executable architecture early
- Build the system with components
- Work together as one team
- Make quality a way of life, not an afterthought
Agile Development

• Agility is rapid & flexible response to change

• Agile Manifesto
  – Individuals and interactions
    - over processes and tools
  – Working software
    - over comprehensive documentation
  – Customer collaboration
    - over contract negotiation
  – Responding to change
    - over following a plan
Agile Modeling

- Agile methods do not mean avoiding all modeling.
- Primary purpose of modeling is to understand.
- Don’t model all (or even most) of software design.
- Use the simplest tool possible
- Don’t model alone
- Create models (views) in parallel
- Use “good enough” simple notation
- Be aware that all models are inaccurate
- Developers themselves should do the design