Individual Critique Guidelines (180 Points)

DEN students
Due date: Friday, May 7, 2010, 11:59 pm
No Hardcopy required; Softcopy; submit online thru DEN

On-campus students
Due date: Friday, May 7, 2010, 5:00 pm
Hardcopy; outside of SAL 329; Softcopy; submit online thru DEN

Submission Process:

When submitting the softcopy, name it:
Txx_FirstName_LastName.doc (for example, T01_Scott_Chen.doc)

Length:
4-6 single-spaced pages (+/- a factor of 2) recommended, but not absolutely required. Don’t use very small or large fonts

Main Question:
If you were to do the project over again, how would you do it better, and how does that relate to the software engineering principles in the course?

The Individual Project Critique shall consist of the following two elements (more emphasis on element 1, i.e., how the process could have been better):

1. Process Improvement (3/4 of emphasis)

Candidate topics include but are not limited to:

• Use of the Incremental Commitment Model
• Process Deployment
  o Which process did you follow to complete your development project (Architected Agile, Net-Centric Services, Use Single NDI, or NDI-Intensive)?
  o If you changed the process (either in your current project or previous project in CSCI577a), what are the rationale of the changes? Is the current process a better fit for your software development project?
  o If you could do the project over again, would you follow the same process? Provide rationale to support your answer.
  o In your opinion, what kind of information or activities can help you in selecting the right process?
  o Based on ICM EPG, suggest any additional information that could support you in the process deployment.
• Testing
  o What do you think about Value-based Testing Process?
  o Does the prioritization procedure really help you with your testing?
• After you did the prioritization, do you really know which test cases are important to clients?
• Any problems when you did the Value-based Testing?
• Do you have any further suggestion for improving the testing process?
• Is the Value-based testing saving your time when the time for testing is very limited?
• Value-based testing is a prioritization strategy for testing, it could be implemented on different levels of testing, e.g. scenario level, test cases level, feature level... Basically, when you prioritize for testing, it should be taken into consideration about Business Importance, Quality Risk, Testing Cost, and Dependency. For this semester, most teams prioritized on the test cases level. Which one do you prefer? You could compare the prioritization on the above different levels, list the pros and cons of each level Value-based testing.

• V&V
  o How do you feel about the strategy of Value-based V&V process, do you like it? Why? Any further improvement?

• Team Assessment
  o How well did the team collaborate among each other through out the entire development life cycle? Explain.
  o Did you team utilize any assessment techniques throughout the development life cycle to monitor the team’s performance and product health?
    - If so, what techniques did you use? Explain.
    - If not, what kind of techniques would you have used to improve the team’s performance? Explain.
  o Do you feel that the team as a whole had a synchronized understanding and knowledge of the project?
    - What the project is? Goals and objectives?
    - What value it provides to the client(s)?
    - Business domain and process?
    - Feasibility and achievability of the development?
    - Etc.
  o How long did it take for the entire team and the client to come to a mutual understanding of what the project is and what is to be developed?
  o What do you feel are the main strengths of your team?
    - Focus on all areas of the development process (e.g. planning, architecting, design, coding, analysis, testing, review, etc.)
  o What do you feel are the main weaknesses of your team?
    - Focus on all areas of the development process (e.g. planning, architecting, design, coding, analysis, testing, review, etc.)
    - What could you have done differently to overcome or reduce the risks of those weaknesses?
  o Staffing (Task assignments, Awareness of roles and responsibilities, Do you have the right people for the jobs? How do you determine whether he/she is right?)

• Class activities (CCD, ARBs, Workshop about COTS and Services on Jan-28, Jan-30, etc.)
• Information sources (lectures, papers, textbook, course notes, and etc...)
• Human Resources (Professor, Teaching Assistants, Clients, Library Personnel, Architecture Review Board members, ITS, DEN, and etc...)
  o Guest Speakers: Len Cayetano, Amy Lin, Warren Reid, Jo Ann Lane, Ali Malik and Jim Land
• Management (staffing, organization, planning, controlling process and product)
• Roles in 577b
  o Comparing set 1 (Technical Lead, Non-Technical Lead, and Quality Lead) vand set 2 (Developer, Tester, Quality Focal Point, V&V)
• Use of DR student as a team member

• Individual Presentation
  o How do you like the theme of “Process Improvement”? Any theme would be more useful to software engineering students?
  o Presentation schedule/ time (later weeks in the semester, 8 minutes presentation, 2 minutes Q&A, follow up in-class quiz)

• Assignment (Individual Homework, Pre-class, In-class, Team Assignment, etc)

• Evaluation (Mid/End -semester evaluation, Individual critique, etc.)

• Class Website (Structure, Content, Google Calendar, Google Form, Discussion Board, Prefer to use DEN website, etc.)

• Use of various tools (Rational Software Modeler; USC-COCOMO II; COCOTS; UCC CodeCount; DART; i-Studio; MS Project; templates; e-Valid; Subversion, Bugzilla etc.)

  We would be particularly interested in feedback on the various tools and processes that is constructive in suggesting improvements rather than just identifying shortfalls; it should be balanced in identifying things that were helpful as well as obstacles; and it should be relatively high-level in focusing on strategic factors rather than individual bugs (turn in separate bug reports for that).

2. Product Improvement (1/4 of emphasis)

  The product improvement aspects of your individual critique may include the following:

  Third-party software use: Identify the third party (NDI, COTS, open source, web services, etc.) software components used in the project and the leading alternatives. Indicate why the specific components were selected over others. Also indicate if given a chance to re-build the system would you use an alternative over the selected component, and why.