ECE450 – Software Engineering II
Winter 2007

Assignment 4 – Software Engineering Essay

Objectives
This assignment has two objectives:
1. To get you started on reading software engineering literature
2. To think and argue critically about software engineering issues

Due Date
This assignment is due at 5:00pm on **April 12th, 2007**.

Description
In this, the only individual assignment of the term, you will need to read an academic piece on software engineering, and respond to it critically in a short essay.

The subject of your essay is your decision, as long as it conforms to the following requisites:
- It must be *essentially* about software engineering (that is, it should not be of a different topic that only touches on software engineering in order to build an argument)
- It must be a published work (either a book or an academic paper). Blog posts, Wikipedia entries, pamphlets, websites, and other materials that did not go through a traditional publishing process *are not valid subjects*.
- It must not be the same subject as that of any of your team members.

Your submission should be presented as a document including **your name**, a paragraph-long **abstract**, and the **essay**. The document should not exceed four pages in total. As for the essay's minimal length: two pages is acceptable, less is not.

Your essay should *briefly* summarize the major points communicated by your subject, and discuss their validity, their consequences, their strengths and weaknesses, and their impact to the field of software engineering.

To get you started on possible subjects for your essay, here is a non-comprehensive list of candidate subjects:

Books
- Brooks, *"The Mythical Man-Month"*
- DeMarco and Lister, *"Peopleware"*
- Fogel, *"Producing Open Source Software"*
- Gauss and Weinberg, *"Exploring Requirements"*
- Glass, *"Facts and Fallacies of Software Engineering"*
- Hunt and Thomas, *"The Pragmatic Programmer"*
- McConnell, *"Rapid Development"*

Sources for papers (and links to their websites)
- IEEE Software (http://www.computer.org/software/)
- Communications of the ACM (http://acm.org/cacm/)
- IEEE Transactions on Software Engineering (http://www.computer.org/tse/)
- Empirical Software Engineering (http://www.springerlink.com/link.asp?id=100262)

Note that to access most of the papers in these resources you may need to access them from a University of Toronto client. The books in the previous list are all available at the library, and all but the last one are relatively short. If you would like additional recommendations on books or academic papers, contact your instructor.

Deliverables

You must submit an electronic report in **PDF** format as an attachment to your instructor's email account. Name your file: "YourName-Assig4.pdf". The subject line of your email should be "[ece450] [Your name] Assignment 4".

Marking Criteria

There are two main marking criteria: The quality and depth of your arguments, and the clarity of your exposition. For the first criterion, you must show an understanding of the topic being discussed in the book or paper, and a thoughtful critique of the subject. Essays that focus on summarizing the subject's contents, and those that provide meek argumentation (for instance, reaching the conclusion that the matter under discussion "depends" on a vaguely stated context), will get very low marks.

For the second criterion, you must ensure the quality of your writing and of your argumentation. The presentation of your report should be professional, and its ideas should be offered following essential elements of style and composition.

Suggestions

Reading an academic paper may seem a bit intimidating if this is the first time you do it –they often have a very dry exposition and spend too much time discussing issues that may seem unnecessary to you. You may focus on the first two sources (Communications of the ACM and IEEE Software), as they appeal to a larger audience and are thus more accessible than the latter two.

If you are hesitant about your own writing, get a peer to proofread your essay looking for both typos and argumentation problems. You may also consult Strunk & White's "The Elements of Style"; a short and helpful book about improving your writing.