University of Toronto
Department of Computer Science

CSC340F - Requirements Engineering

(Released Oct 17, 2005)
Prof. Steve Easterbrook

Assignment 4: Requirements Specification

> **Due Date:** 9:20am, Friday, December 9, 2005
> (i.e. within 10 minutes of the start of the tutorial)
>
> *This assignment counts for 10% of the final grade*

Assignment 4 builds on the modeling work you did for assignment 3, and asks you to write the specification. In these two assignments, you are asked to *analyse the requirements* and *write a requirements specification* for a software development project of your own choice, for a real problem experienced by an existing organization. For assignment 4, you need to write a requirements specification based on this analysis you did for assignment 3. Your specification may include some of the models from assignment 3, as needed. This objective of this assignment is to give you practice in organizing the results of a requirements analysis into a specification document.

The problem you work on should normally be the problem you identified in your feasibility study, except in the case that there were significant problems with your feasibility study. In this case, it is acceptable to select a problem from another team's feasibility study, however you must notify your instructor about this in advance and seek his approval. In any case, it is okay to adjust the scope of the project from that described in the feasibility study.

The project is to be carried out in **teams of three**. Each team will submit one report.

I. Doing the Assignment

This assignment has six steps. They are:

1. *Identify the requirements*, including all functional and non-functional requirements for the new system, the data that the system will need to manage, interfaces to other systems, and interfaces for different classes of users;
2. *Trace these requirements* to the models you produced for assignment 3. Requirements must be traceable to the models and the stakeholders. Note: You don't need to redo the models, just reference them.
3. *Validate these requirements* with your contact(s) in the customer organization, and get feedback. Don't forget to describe any meetings, discussions and feedback in an appendix of your report.
4. *Write a requirements specification* that documents these requirements (using the IEEE standard).
5. *Write a short report* that summarizes the process of writing the specification, including any observations about organization of the document, traceability, and the validation process., the models you generated, and the discussions you had with the client. Discuss the lessons learned and any difficulties you encountered. Your specification, and supporting information should be included as appendices to this report.
6. *Document your teamwork* and complete a team report (see attached form).

II. What to Hand In

Hand in your report at the start of your tutorial on the due date. *Reports not handed in within the first ten minutes of the tutorial will be treated as late.*

You should hand in a report of your work, not exceeding three (3) pages (not counting references, appendices, figures or tables). The report itself is intended just to give an overview of what you did, and the rationale for any choices you made (e.g. about what to how to organize the specification and what validation techniques to use, etc.). Your appendices are likely to be *considerably* longer than this report.

The report should include the following:

1. A methodology section that describes your analysis process, including steps you took for requirements identification, documentation, and validation;
2. A discussion session that *briefly* describes any difficulties you encountered, limitations on your analysis, and interesting lessons learned during the analysis process, etc;
3. A conclusion that summarizes the key points in the report, including a brief assessment of what you have achieved overall.
4. An appendix containing a *detailed requirements specification*. Use the IEEE standard to give you a structure for this document, and use the quality guidelines discussed in the lectures where appropriate.
5. Any further appendices you feel are relevant.

Written Presentation Requirements

Drawings must be clear and legible. Be sure to include a cover page indicating the name of your team, the names of all team members, title of work, course, date and tutor's name. Assignments will be judged on the basis of visual appearance, grammatical correctness and quality of writing, as well as their contents.

Please make sure that the text of your assignment is well-structured, using paragraphs, full sentences, and other features of a well-written presentation. The report must not consist of itemized lists of points. Text font size should be either 10 or 12 points.

IV. Marking Scheme

Your assignment will be marked by your tutor. If you have questions about a marked assignment, you should first ask your tutor before/after a tutorial. If you don't get satisfactory answers, you should talk to your instructor.

Marks for this assignment will depend on the following factors:

Requirements Specification (70%): Do the functional and non-functional requirements make sense? Do they address the problem? Is your specification clear, well-structured, unambiguous, complete, easy to change, traceable, consistent, etc.?

Report and Supporting Evidence (20%): The description of your process, and the appendices that describe meetings and other information on the preparation of the assignment. Have you provided enough context information for us to assess validity and traceability of your specification?

Presentation (10%): The style of your presentation, including language, grammar, clarity of the presentation etc. (5% - Language; 5% - Style and clarity)

Team Report Form

(must be submitted with assignment)

Description of roles and contributions of each team member:

Name	% of team Effort	Signature

Date submitted:_____