CST8225 Software Requirements Specifications and Analysis

**Student Project Preliminary Design Assignment**

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| **Date Issued**: | March 12th 2012 |
| **Due Date**: | There are several submission due dates for this assignment. Refer to the Required Submissions section.  Note that in accordance with the course outline, late assignments will not be accepted for marking, and all members of the project group will receive a mark of zero (0) for this assignment, except for the *Signed Statement of Scope Document*, which results in a course failure for the entire project group if it is late being submitted. |

# Objective

The objective of this assignment is to provide you with an opportunity to transition from the Definition stage to the Development stage of your student project that you have commenced in CST8225 and will complete in CST8235. As such, project groups must make any corrections to their Definition stage documents (Statement of Scope and Analysis Document), and work diligently within your design framework to complete a Preliminary Design Document, a Preliminary User Manual, a User Acceptance Manual, a Letter of Transmittal and a Client Receipt for Project Documents (you create the template for this) applicable to the student project.

# Instructions

This assignment is worth 15% of the Practical Portion of your CST8225 mark.

**Project Worksheets and Binders**

This assignment will use your “real” project’s worksheets and project binder. All other instructions contained in the Standards for Worksheets, Binders, and Gantt Charts document on Blackboard is applicable for this assignment. Students must be in possession of the aforementioned notebooks during each client-sponsored meeting, and each project group meeting, including lab meetings with the course professors.

**Participation**

The project group must work together with the project leader to ensure that all assignment work is performed to the highest of quality standards, and that all students have an opportunity to participate in this assignment. Project leaders must formally assign work to other project members, and students who do not actively participate (as determined by an inspection of the project notebooks later in the course) or who voluntarily withdraw themselves from their project group during this assignment will receive a mark of zero (0) for this assignment. Note that it is imperative that both the assignment project notebook and the assignment individual notebooks contain a comprehensive record of all work performed for this assignment – if the work is not recorded or verifiable in the notebooks, then for the purpose of evaluation, the work shall be deemed to have not been done.

**Note!**

**Required Document Corrections**

You are required to correct documents submitted for the Student Project Software Requirements Assignment and returned to you by your course professor:

* Original marked-up *Unsigned Statement of Scope Document*
* Original marked-up *Analysis Document*
* Original marked-up *Business (Domain-Specific) Rules Document*

The *Unsigned Statement of Scope Document* should be immediately corrected and taken to the client for signature well before the due date of the S*igned Statement of Scope Document.*

The *Analysis Document* and the *Business (Domain-Specific) Rules Document* should be corrected as soon as possible so that it can be used as a solid foundation for preliminary design.

Note the comments regarding these documents in the Non-Credit Assessment Factors section of this assignment.

**Supporting Material**

After several in depth meetings with the client, you must author a Preliminary Design Document, a Preliminary User Manual, and a User Acceptance Manual using the framework provided on Blackboard in the Assignments Folder under the heading “Student Project Preliminary Design Assignment”, which includes the following:

* A template for the *Preliminary Design Document*
* A template for the *Preliminary User Manual*

You are also expected to use the feedback gained from previous course assignments as supporting material.

**Additional References**

The following references are also provided as guidance:

Preliminary Design

The purpose of the Preliminary Design document is:

* To provide the first look at HOW the problem modeled during the analysis phase will be implemented
* To form the basis for the detailed design phase of the project

Software design sits at the technical kernel of software engineering and is applied regardless of the software process model that is used. Beginning once software requirements have been analyzed and specified, software design is the first of three technical activities—design, code generation, and test—that are required to build and verify the software. Each activity transforms information in a manner that ultimately results in validated computer software. The following references are provided:

* Whitten Chapter Eight Data Modeling and Analysis
* Whitten Chapter Twelve Systems Design
* Whitten Chapter Thirteen Application Architecture and Modeling
* Whitten Chapter Eight Data Modeling and Analysis
* Whitten Chapter Fourteen Database Design
* Whitten Chapter Eighteen Object-Oriented Design and Modeling Using the UML
* Pressman Chapter 8 Analysis Modeling
* Pressman Chapter 9 Design Engineering
* Pressman Chapter 10 Architectural Design
* Pressman Chapter 11 Component-Level Design
* Your Lecture Notes

Preliminary User Manual:

The purpose of the Preliminary User Manual is:

* To provide the client with a prototype of the system under development
* To assist in ensuring that project requirements have been correctly captured
* To explain and illustrate the usage of the system from a user’s point of view
* To determine if the “look and feel” of the user interfaces is suitable
* To obtain client and user feedback on all of the above

Since this is the first “real” look at the system that you are developing, you should pay particular attention to this activity, as clients generally view this prototype as a basis of an early indication of the overall quality of the to-be delivered product. The following references are provided:

* Whitten Chapter Fifteen Output Design and Prototyping
* Whitten Chapter Sixteen Input Design and Prototyping
* Whitten Chapter Seventeen User Interface Design
* Pressman Chapter 12 User Interface Design
* Your Lecture Notes

**Documentation Standards**

The following documentation standards amplify those detailed in the template for this assignment, those that you might have encountered in ENL1819T or that your project group establishes for their documentation.

*Analysis Document* and *Statement of Scope* document

* Each page, except the title page and the appendices contains the following:
  + A header that identifies the name of the document (*as applicable*).
  + A footer that contains the page numbers, using a “Page x of y” format, where x is the current page number, and y is the total pages in the document excluding the appendices.
* Each appendix is to commence with an unnumbered separator page, followed by numbered pages that use an "Appendix Number – Current Page Number" format – i.e. "A – 2" would appear on the bottom of the first page after the unnumbered separator page of Appendix A, followed by "A – 3" and so on.

You must also create a project group Documentation Standards document for this assignment that outlines the specific documentation standards your project group used for the creation of your documentation.

# Non-Credit Assessment Factors

It is expected that all assignment submissions will be of the utmost quality; however, where warranted up to 100% of the assignment mark will be deducted for poor quality submissions. Here are examples of non-credit assessment factors that will be monitored for quality in addition to factors that are directly assessed for marks:

* Technical Report Format and Contents
* Title Page
* Table of Contents
* Contact Information
* Page Numbering
* Grammar
* Spelling
* Other

Note that where the project group has not responded to direction in correcting deficiencies noted in previous assignments or noted by the course professors during weekly meetings and/or inspections (i.e. page number of appendices was noted as incorrect and you have not corrected this deficiency in this assignment), you can expect a minimum deduction of 10% of your normalized assignment mark for each noted deficiency.

**Note!**

There are no marks for correcting the *Unsigned Statement of Scope Document,* the *Analysis Document* or the *Business (Domain-Specific) Rules Document* that were submitted for the Student Project Software Requirements Assignment and returned to you by your course professor. However, if annotated errors have not been corrected in these documents, then the project group will have their Normalized Mark for this assignment reduced by 50% for each document not corrected.

# Submissions Required

**IN ADDITION TO BINDERS**

***READ THIS SECTION VERY CAREFULY!***

**DVD’S ARE ALSO REQUIRED FOR DOCUMENT SET**

**By 16:00 hrs on 23 March 2012**

* 1. The project leader (or designate) is to deliver the following documents together, unbound, and unstapled in one suitably sectioned three ringer binder directly to the Project Professor:
* Original marked-up *Analysis Document*
* Corrected *Analysis Document*
* Original marked-up *Business (Domain-Specific) Rules Document*
* Updated and corrected *Business (Domain-Specific) Rules Document*
* *Preliminary Design Document* (for Review)
* *Preliminary User Manual (for Review)*
* *Unsigned Statement of Scope Document*

1. The project leader (or designate) is to also deliver the project group binder (this is a separate binder from the aforementioned binder) directly to the Project Professor:

* The *Project Group Worksheets* updated to the current date
* Each project group member's *Individual Project Worksheets* updated to the current date
* The *project group binder* (this is a separate binder from the aforementioned binder)
* Project Group Documentation Standards document

**By 16:00 hrs on 09 April 2012 (Preliminary docs in red are due April 2 2012)**

You are responsible for completing all of the following assignment requirements:

* 1. The in-person delivery of the following professionally presented documents to your client using a Letter of Transmittal:
* *Client Receipt For Project Documents*
* Corrected unsigned *Statement of Scope Document*
* Corrected *Analysis Document*
* *Preliminary Design Document*
* *Preliminary User Manual*

Ensure that you explicitly but politely request the client to take the following action with respect to this delivery:

* Validate that the required documents have been delivered and then sign the *Client Receipt for Project Documents* acknowledging the s/he has received the aforementioned documents.
* Read all other delivered documents, provide necessary feedback and sign the unsigned *Statement of Scope* document authorizing the project continuance to CST8160 Project. Note that the signing of the Statement of Scope can be done anytime before the promulgated deadline.

1. The in-person delivery of the following document directly to your course professor:

* *Client Receipt for Project Documents*

**By 12:00 hrs on 23 April 2012**  you are responsible for completing all of the following assignment requirements:

1. The in-person delivery of the following document directly to your Project Professor:
   1. Complete Document set including the two items below.

* original marked-up unsigned *Statement of Scope Document*
* *Signed Statement of Scope Document*

**Note!**

**As stated in the course outline, “if the project group does not meet the assignment deadlines for the signed Statement of Scope, which forms part of the Student Project Software Requirements Assignment (group) and the Student Project Preliminary Design Assignment (group), their project will be cancelled, which will result in all project group members failing the course.”**

**Think Quality!**

# Assessment

A formal inspection of all submitted material will be conducted by the course professors as an in-class activity during the weeks of 28 Nov and 5 Dec 05. The times for this assessment will be promulgated at a later date.

The following marking guide will be used to assess this assignment. There is no requirement to submit this marking guide with your assignment.

**Student Project Software Requirements Assignment – Marking Guide**

Preliminary User Manual /25

Preliminary Design Document /100

**Total Marks** /125

-Reductions /125

**Normalized mark** (15%) /15

**Notes:**

* + - * Documents missing from the list above result in a zero (0) for that portion of the assignment, plus an additional 50% reduction of assignment mark – i.e. if you decide not to do the User Acceptance Manual because it is only worth 25 marks out of 150 marks, then you will receive 0/25 for the User Acceptance Manual, plus your Normalized Mark will be reduced by 50%.

**Note!**

* + - * There are no marks for correcting the Unsigned Statement of Scope Document, the Analysis Document, or the Business (Domain-Specific) Rules Document that were submitted for the Student Project Software Requirements Assignment and returned to you by your course professor. However, if annotated errors have not been corrected in these documents, then the project group will have their Normalized Mark for this assignment reduced by 50% for each document not corrected.
      * If an inspection of project notebooks later reveals that any particular student did not participate in this assignment, the student’s mark for this assignment will be changed to zero (0).