



Department of Computer Science

CSCC40 - Information Systems Analysis and Design

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Assignment 3: Detailed Design for an Information System

Due Date: 11:59PM, Dec 6, 2010

This assignment counts for 15% of your final mark

The Assignment

The objective of the assignment is to give you practice in doing a detailed design for the information system you have been working on for assignments 1 and 2. The detailed design should include selecting hardware, networking and software for the new system, designing a system and a general software architecture, proposing a detailed software architecture, also defining a relational database schema and suitable I/O procedures and interfaces.

Directions: This assignment consists of eight steps:

1. Adopt the requirements specification of assignment 2. You may want to revise it on the basis of the comments you received from the marker.
2. Define system architecture, consisting of computer networks (existing or new), hardware (existing or new) and software platform (operating system, other commercial software you will be using for your system).
3. Select hardware, software and networking to be purchased for the new system. Specify clearly the criteria and alternatives you are using for your decision.
4. Propose general software architecture for the new system and justify your choice.
5. Based on the general design you have proposed, design the database schema for the database component of your system. Take into account workloads in proposing a relational database schema. Use both class diagrams and ER diagrams to describe the contents of your database before you generate a relational schema.
6. Design I/O procedures and user interfaces.

7. Do a detailed design of the classes that are part of your system using class, interaction and state diagrams.
8. Write a report that describes the complete system design. The report should include as an appendix the requirements specification document on which your design was based, along with a careful account of how all requirements (functional and non-functional) were addressed in your proposed design.

What to Hand In

Submit your assignment electronically by visiting the electronic submission system at <http://portal.utoronto.ca/>. There is no limit on the length of the report that you have to hand in. It is suggested however, that you turn in a report of reasonable length, sufficient to convince the marker that you have done a good job, without boring him/her.



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Assignment 3: Team Report Form (*must* be submitted with assignment)

MARKS WILL BE ADJUSTED IF THE TEAM EFFORT IS NOT DISTRIBUTED EQUALLY.

Description of roles and contributions of each team member:

Name

% of team Effort