WDSC 555 – Computer Applications in Forest Resource Management
Spring, 2012

Project Design Sample

For

Course Project
Log Inventory Management System

Assignment 1 – Project Design

Due 02/10/2012

The following is a sample of project design. Please follow the basic procedures listed in this handout to work on the design documents for your two projects.

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GW Forest Products Inc. has been maintaining log inventory at sawmill for many years. Its business has been so improved that the current system for maintaining log inventories may jeopardize its future growth. Therefore, the company asked us to develop a computer-based log inventory system.

The computer-based system that will replace the current manual system must adhere to the business practices that the company currently employs and must maintain the same information. There are four basic pieces of information that need to be collected and manipulated:

- Truck Load – supplier, source, supplied date, and log information associated with each load.
- Logs – log specifications.
- Species – species information for convenient input.
- Supplier – supplier information for convenient input.

Each load contains multiple logs that are supplied by a supplier on a specific date. Based on the log specifications and assumed unit price, the system should be able to compute the values of logs. The user is also able to edit logs that are to be sawed. Several reports must be generated according to the user's requirements, for example, overall inventory, log inventory by date, inventory by species, and inventory by supplier.

The first thing you need to do for this project is to work out a requirement and specification document. Usually, requirement and specification are two separate documents. However, a combined document of about 10 pages is required for your project. Please follow the attached procedures for requirement and specification document. Samples of the document are provided.

Requirements' Document

The functional requirements' document should address the following items:

1. Introduction, with historical discussion of the application, users, expected benefits, and objectives.
2. Functional requirements of the application (structural and behavioral characteristics of the application; general description of the data involved).
3. Costs
4. Product description (general description of the product to be delivered).
5. Time estimates (project management tool, time schedule).
6. Description of the deliverables.
7. General outline of the contents of the expected reports.
8. Platforms.
9. Commercial software packages required.
10. Training.
11. Expected skill level of the user community.
12. Security features, level of security, and DBA responsibilities.
13. Backup option, need to purchase tape drive, need for off-site storage.

Specification Document

The specifications are a blueprint for the application in the sense that a database developer and a programmer should be able to build the application directly from the specifications.

The specifications should minimally contain the following sections:

1. An introduction which contains a description of the problem space, a brief history of the problem and benefits that will accrue from the application to be developed.
2. Description of all the tables including all structural, performance and behavioral characteristics; this includes the table names, attribute names, attribute data types, referential and semantic integrity, high level language interfaces, and additional tools required.
3. Graphical and written description of the forms/interfaces and relationships between the forms; include any behavioral characteristics that are relative to the forms/interfaces.
4. A list of the reports that will be enforces via the forms/interfaces.
5. The menus that will constitute the interface to the application.
6. Any security considerations if this is a multi-user applications.