Homework Assignment #2:
Design and Implementation of a Web-Based Database

Important Dates

10:00PM October 14 (Tuesday), 2014   design document
2:10PM October 15 (Wednesday), 2014   demo

Task Description

This assignment is intended to be a warm-up sprint (in the terminology of Agile Software Development) of the term project, the goal of which is to develop a Web application for facilitating the interactions among the alumni of a university (or a department within a university) and also the interactions between the alumni and the university. Your task in this warm-up sprint is to design and implement a Web-based relational database whose refined and expanded version will become a key component of the planned Web application. The database supports storage and organization of discussions on various issues/topics that have been raised by some alumnus or the university/department.

What should be in the database is up to you, but we expect it to store at least the following information:

- all issues/topics that have been raised so far and

- discussions/comments addressing each issue.

To demonstrate what the database contains and that it is truly Web-enabled, you will need to write some webpages that allow the user (with a browser) to view or update the database (by raising an issue or adding a comment, including the first response to a newly raised issue). Among other things, the client-side code should be able to accept the addition of a comment and, after the database has been updated, display the most recent comments addressing the same issue.

General Instructions

- This assignment is to be completed by each student individually (though the term project will be carried out by teams of around 11-12 members).

- You must use the Git version control system, set up for this course, to manage your development work.

- Your webpages must be accessible at the sdm.im.ntu.edu.tw server, the same server that hosts the Git system.

- The database must reside on the sdm2.im.ntu.edu.tw server, to which you have access with the same account for the Git server.

- Submit your design document by the due time to your individual repository on the Git server. Late submission will be penalized by 20% for each working day overdue.

- The demo may not be postponed.

- Both the design document and the demo will be taken into account for the grading.

- DO NOT plagiarize (i.e., do not use material without crediting the source).

Design Document

The design document should include at least the following items:

- An overview of the database with adequate diagrams and explanations

- Rationale of the design

- Illustrative queries or updates (here you should anticipate possible functions in the Web application)

The design document, including the cover and references, is limited to 4 pages. So, please use the space wisely.

Demo

All demos will be scheduled during the breaks of the class meeting or immediately after the class meeting on October 15. For the demo, you must be able to show the following:

- There is a button (with an informative name) on the main page which the user may click to view all issues that have been raised so far.

- The user may select a particular issue and add a new comment to it. Once the addition has been committed by the user, the text window showing all the current comments (now including the new one) is refreshed.