COMP 3311: Database Management Systems

Final Year Project (FYP) Management System

Course Project Description

The Department of Computer Science and Engineering (CSE) requires an information system to manage its final year project (FYP) data. The information system will be used by:

- students to view available FYPs, form FYP project groups, indicate the FYPs in which they are interested and view their own grades;
- faculty (i.e., professors) to create FYPs, assign students to work on FYPs and enter, view and change grades;
- the FYP coordinator, who is a faculty, to enter, view and change grades and for general management of FYPs.

Faculty who wish to supervise an FYP should be able to enter information about themselves as well as the FYP. Required faculty information includes a unique username, a name, a room number and a unique two-character faculty code which is used to generate unique group codes that identify the project groups assigned to a faculty's FYPs as described subsequently. Each faculty member should be able to supervise any number of FYPs including no FYP; an FYP should be supervised by at most two faculty members.

Required FYP information includes title, description, FYP category (Artificial Intelligence, Computer Games, Computer Security, Database, Embedded Systems and Software, Human Language Technology, Miscellaneous, Mobile and Wireless Computing, Mobile Applications, Mobile Gaming, Networking, Operating Systems, Software Technology, Theory, Vision and Graphics), FYP type (project or thesis) and any other requirements that should be satisfied to apply for the FYP (e.g., courses or skills needed). Finally, the minimum and maximum number of students allowed in a project group should be specified, where the FYP type, thesis, should have a minimum and a maximum of one.

Assigning students to FYPs should require students to first form project groups. Required student information includes a unique username and a name. Each project group should have between one and four students; each student should belong to at most one project group. Next, project groups should be able to indicate their interest in an FYP by specifying a priority from 1 (highest) to 5 (lowest) for the FYP. An FYP should be able to have many project groups indicate an interest in it, either with the same or different priority, and each project group should be able to indicate an interest in more than one FYP, either with the same or different priority. Finally, the FYP supervisor(s) should be able to select, from the project groups that have indicated an interest in an FYP, those that actually will be assigned to it.

When a project group is assigned to an FYP it should be assigned a unique group code derived from the faculty code of the FYP supervisor(s). If the maximum number of project groups that a supervisor wants to assign to an FYP is reached, then the supervisor should close the FYP, which means that it is no longer available for assignment. While the same FYP can be assigned to several project groups, each project group should be assigned to at most one FYP. Once assigned to an FYP, a project group should no longer be available to be assigned to any other FYP.

Each project group assigned to an FYP also should be assigned one other faculty member called the reader who evaluates and grades the FYP. Different project groups assigned to the same FYP may have either the same or different readers assigned to them. A faculty member should be able to be a reader for no or for several project groups. The FYP Coordinator should assign a reader to each project group that has been assigned to an FYP.

There should be four graded requirements for an FYP proposal report, progress report, final report and presentation on the FYP outcome. The grade for each requirement is a number between 0 and 100. Each individual student should be given a supervisor grade and a reader grade for each of the graded requirements. Only a single supervisor grade should be given for each graded requirement even if an FYP has more than one supervisor.