

COP 5725 Class Project, Spring 2007

Online Craftsman Community

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Project Overview

In this project you have to design a system with a web interface that can be used by a craftsman/artist community to share projects, ideas and to maintain blogs. `lumberjocks.com` is an example of such a community, to get a better idea of what the requirements are. The system you are asked to implement is a typical client-server application with a web-based front end and a database backend. This document describes, at a high-level, the project and outlines the deliverables. It is your responsibility to come up with a complete specification that makes sense. It is crucial that you have a good, solid design before you start coding.

- **The project is worth 30% of the grade**
- **Each team can have at most two members (EDGE students can work with on-site students)**
- **If you chose to do the project alone, about 60% of the system needs to be implemented for full credit**
- **The grading will not be based only on correctness, but on elegance of the code and quality of extra material**
- **You can use any database system as a backend, but Oracle 10g Express is recommended**
- **You can use any web server and language to implement the front-end, but Apache with php is recommended**
- **In order to demo the project, your system must either be available on the web or you must demo it on your laptop. Either solution is acceptable. The source code must be available as well.**

Required functionality

In order for the system to be useful for the intended application, the following types of functionality needs to be implemented:

- The system needs to support an unlimited number of users
- Each user has a user name (handle) that is associated with all the content the user produces.
- Each user can provide a personal description, an avatar (a small 100x100 pixel picture that is displayed together with the handle for content associated with the user), and a location (city, state or province and country)
- Users can post projects, forum topics or blog entries. Users can also add comments to all these types of content posted by any other user (themselves included)
- A project has a title, up to 3 pictures depicting the project and a description.
- A forum topic has a title and a description
- A blog entry has a title, a description. Also, blog entries can be organized into series for which a name can be specified. If a blog entry belongs to a series, the name that appears on the screen should be nameOfSeries:nameOfBlogEntry
- For each user, there should be an easy way to get to all the projects, forum topics and blog entries for that user. When the avatar or the handle name is selected with the mouse, this page should be displayed. Also, each user should be able to easily access her/his content via a link always present on any web page (My Home or something similar).
- There should be a page displaying the projects in bunches of 15 (first picture, description, user that posted it, the number of times the project has been viewed and the number of comments). Navigation through the set of objects also is needed. Projects need to be displayed in the order of posting.
- A page should display the forum topics (name, and user that posted them) in bunches of 20 (+navigation).
- A page should display the blog entries of all users in order of posting.
- Each project, forum topic or blog will be displayed on its own page when selected from anywhere in the system. The comments associated with the entry are displayed as well (avatar and handle of the user and content of the message). The ability to add comments needs to be implemented as well.

The above description is just a guideline. You can make small modifications as long as they are consistent throughout the system. If you chose to work alone, you do not have to implement the blog functionality. You do not need to have an avatar or personal description for an user either.

Deliverables

There are two phases for this project. You have to produce deliverables for each of the two phases.

Phase I

In the first phase of the project you just have to get things started to avoid doing all the work immediately before the deadline for the final project. The deliverables are:

1. An initial ER diagram and Schema (SQL code) for the system. Both have to be submitted on paper for regular students and electronically for EDGE students.
2. Make a database connection from the language you selected for web interface implementation, get some information from the database and generate a web page displaying that content. A printout of the web page with the request and the webpage that resulted are sufficient.
3. You can make a single submission per group

Phase II

In phase II you have to finish the project and demo it. The following deliverables have to be presented at the demo time:

1. The program running on your laptop or accessible online. Laptop is preferable.
2. A design document describing the major design decisions, detailing the database schema, and the details about the contributions of each of the group members together with a description of the major challenges and programming practices. Please typeset this document professionally.
3. Source code available on the laptop or online.
4. The course instructor will grade the project. Demo slots will be made available for you to sign up.

The due dates for each of the two phases will be posted on the webpage of the class.