

CSC-40030 Web Technologies

Assignment Sheet (2010/2011)

Your task is to create a simple social networking website that allows users to leave comments for each other. In particular, you should include the following features:

- a registration page for users to sign up (keep it simple)
- a secure login/logout mechanism for user accounts
- a 'wall' (or comment page) for each user
- the ability for users to link to others as 'friends'
- an administrator account that can delete any comments or users

The registration page need not require too much detail. Just ask the user for their desired username, real name and chosen password. When users log in they will see their own wall, with comments appearing in reverse chronological order. Each comment will be displayed against the name of the author, which should be clickable to view their wall. The author of a comment should be able to delete it, so provide a link for this purpose. Don't forget that the administrator should be able to delete any comment.

At the top of each wall, provide an option to 'befriend' that person. If the user viewing the wall is already a friend, the option should instead allow them to 'unfriend' that person. Friend requests should happen instantly; you don't need to ask the other person for confirmation. There should also be a page that displays a clickable list of all users, so people can find new friends! Make sure that page is accessible from your navigation area.

Pay attention to the navigation and role-based access control as you display each page. The administrator will have access to some items that regular users do not, so think about where those items will be displayed for ease of use. It will really help if you plan things in advance, noting what needs to be displayed according to the user's role.

Extra Features

The website described above is fairly basic in operation. You can get extra marks for implementing any of the following:

- a separate 'About Me' page for each user, which only they can edit (you'll need to consider how to navigate between this and the wall display)
- a reCAPTCHA form on the registration page (you'll need to plug into the Google web service API to provide this feature)

The 'About Me' page could include a paragraph of text, date of birth, location, and so on. It might be advisable to allow the administrator to edit this information for any user.

Advanced Features

Extra marks will be awarded if you incorporate any of the following advanced features into your website:

- jQuery validators that check the password strength and username availability within the registration form (whilst the user is typing)
- a fully dynamic CSS layout that uses Ajax and the DOM instead of page reloads when comments are submitted
- a facility for users to upload a small profile picture

File uploads can be tricky to implement, but the process is covered fully on the PHP website. Full profile photo features are well beyond the scope of this assignment; you just need to allow the user to upload one picture to be used on their comment boxes.

Design **this part is not necessary**

The design portion of this assignment is worth 40% of the overall mark. You should make sure you include the following in your submission:

- an ERD (or series of ERDs) representing the database design
- a set of CREATE TABLE statements showing the field types for each table
- a brief explanation of why you chose your particular tables and fields
- at least one diagram of your overall page layout, showing how you've incorporated the navigation and administrative functions into the site

You can include all this in one document to make it easier to submit. You can also include all the written aspects of the implementation in the same document. Make sure everything is clearly presented.

Implementation

The coding portion of this assignment is worth 60% of the overall mark. You should make sure you include the following in your submission:

- a fully-qualified URL for the website index page on our server
- the username and password for the administrator account
- some screenshots of your website in action
- a brief explanation of your implementation choices, any problems encountered, and your development process (no more than two pages)
- a zip file containing the PHP code for your website

Your implementation should be based around XHTML, JavaScript, CSS, PHP and MySQL. You may use the jQuery JavaScript framework for form validation, DOM manipulation, interactivity and advanced Ajax facilities if you wish.