

COMP9321 Semester 2, 2017

Assignment 2: Social Media - UNSWBook

Group Assignment - 20 Marks (Group of Max 6)

Aims and Background

This project aims to give students hands-on experience in:

- Designing and implementing a fully-functional Web application.
- Using well-known application patterns such as MVC.
- Using JDBC and related technologies to maintain persistence of user data.

The theme of assignment will be oriented around social media sites, similar to Facebook. Your assignment is to design and implement a web application that allows facilitating the creation and sharing of information, limited the website's membership to UNSW students. We call this social media Website **UNSWBook**.

Requirements

The core requirements of this assignment are organised across the following four modules:

1. User Profile.
2. Friend and Search:
 1. Friend: Friending someone is the act of sending another user a friend request on UNSWBook.
 2. Search: It enables the users to search for all the users in the UNSWBook and send them friend request.
3. Wall and Like:
 1. Wall: It allows the posting of messages for the user to see while displaying the time and date the message was written.
 2. Like: It enables users to easily interact with the posted messages.
4. Admin Functionality.

1. User Registration

- A user visits a profile page and enters the following details: a username, a password, an email address, and personal details (e.g. Name, Gender, DoB, Photo, etc).
- On submitting this information, the system sends an email containing a confirmation URL to the supplied address.

- The user reads the email, goes to the confirmation URL; the system confirms the registration.
- Every detail other than the username can be changed at any time by the user.

2. Search for users and add them as friends

- User A logs into his/her account.
- User A can search for the users registered in UNSWBook. You should think about a basic (only search by name) and an advanced search (search by Gender, DoB, etc.).
- User can select a user and see his/her details. User can send a friend request.
- The user clicks a button to send friendship request to User B. On submitting this information, the system sends an email containing a confirmation URL to the supplied address.
- User B reads the email and accept the request. A notification (on UNSWBook) will be send to User A tell him that User B accepted the friends request.

Note: You have to ensure to implement the system such that it will enable multiple users use the system simultaneously.

3. Wall and Like

This functionality works as follows:

- User A login to the system.
- User A should be able to post a message (include text, URL, image, etc).
- All the users who are the friend of User A, should be able to see this message (include content, date and time the message posted) on the user's UNSWBook Wall. The wall can be as simple as a list group ([EXAMPLE](#)).
- The user should be able to like/unlike a post. A notification (on UNSWBook) will be send to User A tell him that User B liked the posted message.

4. Admin Functionality

The admin is a special account in the system which can only be accessed via a separate page (that is, not the usual user login page). The admin has the following functions:

1. Ban a user from the site.
2. Monitor customer activities:
 1. The admin should be able to search for and select a user.
 2. The admin should be able to see the user activity report. This report includes a timeline from the time the user joined the UNSWBook Website, Added Friends, Posted Messages, etc. To achieve this you will need to trace the user activities and store them in a table(s).

Assignment Execution

System Requirements

You should use a minimum of Java, JSP/Servlets, and JDBC. Apache Tomcat should be used as the Web application server. You can choose whatever database you would like to use. Also, you are allowed to use any package/library or framework.

You can demonstrate your assignments using CSE lab computers as well as your laptops.

You will see a series of J2EE Design Patterns in the labs (and also in lectures). Your application must be based on the MVC pattern and you must be able to identify the different layers in your code.

Submission and Demo

The due date for this assignment is (end of Mid Semester Break): **Sunday, Oct 1 2017, 23:59:00**. You **MUST** demonstrate the assignments in Week 10 (starting Oct 2 2017) during the lab times.

1. After testing, generate a war file from your project. In Eclipse, this is Right-Click on project name --> Export --> WAR file. Make sure that the "Export Sources" checkbox is checked.
2. email the WAR file to the following email address:
3. To: `unsw.cse.comp9321@gmail.com`
4. CC: All your group members
5. From: [Your unsw email address]
6. Subject: `COMP9321-Ass2-S2_17`
7. Body:
8. [group id]
For-each Group member: [Student Number]-[Student Name],
Attachment: War-File

Important Notes:

1. This email address (`unsw.cse.comp9321@gmail.com`) is only for submitting your assignments. For other inquiries please contact your lecturer.
2. You do not need to email the Database files. The WAR file will be sufficient.
3. You can demonstrate your assignments using CSE lab computers as well as your laptops.
4. The following additional libs are accepted: JSTL. And for front-end purposes, JQuery and Bootstrap. Additionally, any other Javascript libs that are simply referenced (i.e. without having to add to the build path) in your HTML/JSP page is accepted.

Demos

Demo will be held during the lab times in **week 10**. You should use the same `.war` file that you submitted for your demo.

Each demo will be around 10-15 mins long.

Evaluation and Marking

This assignment is worth 20 marks and will be marked on a group basis. A more detailed marking specification has now been provided ([Download Assignment 2 Marking Scheme](#)). Other factors of importance is: *Quality of Demo*, which includes incorporating features such as high quality data for demo, input form validation, guarded views, and preventing form resubmission on pressing back button. Extra *innovation* is also encouraged - feel free to experiment or incorporate features found in other online bookstore websites.

Late Submissions and Penalties

Late submissions will lose 2 marks on the first day, and 1 mark per day after that.

Important

Please use the message board for questions, resolving doubts.