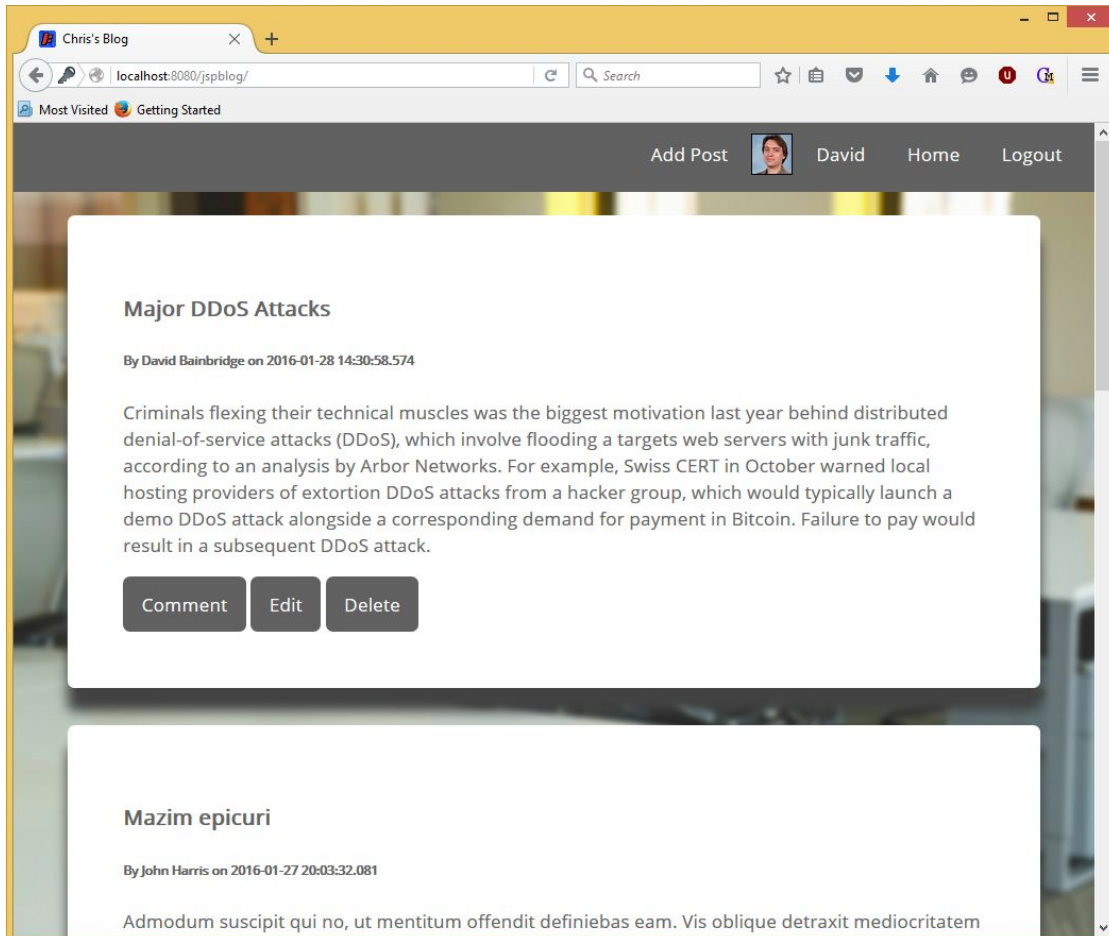


# A JSP-based Personal Blogging System



***Assignment Due Date  
(Code Submission)***

***12th February 2016***

## Introduction

In this assignment you will develop a blogging web site using a combination of the programming skills you have learnt through the *Programming for Industry* and *Programming with Web Technology* courses. The snapshot shown above is taken from a model answer we have developed while testing things out. Through the web site users can register for an account, which is needed to be able to post articles and to leave comments on others. When logged in, they have full control of the content they have authored: creating, updating and deleting their content and comments.

The functionality you need to provide to implement the blogging system, which detail below, has been divided into two sections: basic functionality, which is compulsory, and advanced features. For advanced features, there are a range of features to choose from—you do not have to implement them all.

## Marking Scheme

This assignment is marked out of 100 marks.

The marks are composed as follows:

- 20 marks for the compulsory section
- 45 marks for the additional features section
- 10 marks for client-side coding style (HTML, CSS, JavaScript)
- 10 marks for server side coding style (Java)
- 15 *Individual* Reflection Essay

## Reflect Essay Details

Due: 15th February 2016

Length: approximately 4-6 pages

Topics to be covered:

- In your own words, explain how the system as a whole has been designed;
- Detail your particular contributions to the team/project;
- Detail which taught topics taught map into the project design; and
- The lessons learnt working in a team

*There will also be a group presentation of the Friday, where you demonstrate the blogging system you have developed, and explained how you designed it. More details about this will be provided once the assignment has got underway.*

## Starting Files

A rudimentary version has been provided for you in *simplewebapp.zip* to help you get started. It makes use of JSP and contacts a Derby database to retrieve article content

Some setup is required to get it to run (see companion README file), but once done provides a site where the home page lists the titles to the articles stored in the database, and when a title is clicked on serves up that article page: title and content.

## Basic Functionality (compulsory):

The compulsory part to this assignment provides the basic functionality for a blogging system. The additional features section (described next) includes a wide range of features that enhances the functionality and user interface of the the blogging system.

The basic functionality you need to provide is:

- Register as a new user
- Add/Edit/Delete an article. When logged in:
  - Add/Edit your own comment to another user's posting
  - Delete a comment if you wrote the comment, or else you are the user of the original posting
- Add/Edit/Delete your own account
- Login and Logout

## Additional features (select 45 marks worth of features) :

The additional features are grouped as "packs" each worth 15 marks. You need to implement 3 of the 6 packs. There is also scope to propose your own packs. If you have some alternative ideas on a set of features that would improve the blogging site, discuss this with your lecturer to see if it constitutes a suitable substitute.

### Feature Packs

#### *Swing GUI*

- A Java Swing (or JavaFX if you prefer) GUI interface that provides a connection to the database to allow the administrator of the site to manage and moderate the blogging site.

#### *User Interface Pack*

- WYSIWYG support for authoring articles
- Dynamically checks if username is available (AJAX calls)
- Responsive Design
  - mobile and tablet sized
- Themed JQuery-UI interface
  - set through a config file, that changes the whole site for all users
  - extra marks for allowing each user to choose their personalized theme from a list provided by the blogging software
  - further extra marks if they can take their own developed through theme-roller, which is then uploaded to the system through

### *Feature Enhancements Pack 1*

- Choose an icon for you user profile
  - from a selection of images provided by the site
- Expanded profile details
  - Date of Birth, Education, etc. (look to popular sites like Facebook for ideas).
- Use Recaptcha on registration page, to prove the person signing up is human

### *Feature Enhancement Pack 2*

- Manual control of the date for the article using a calendar feature
  - the date defaults to the current day, but the user change this to any date (past or future) they wish the post to be for. The should be valid, however.
- Searching and Sorting by title, username, date

### *Multimedia Pack*

- Allow the uploading of images into articles (multiple images in one article allowed)
- Support for Audio and Video (just one audio or video)

### *Robustness and Security Pack*

- Comprehensive checks for error conditions with appropriate responses
  - e.g., consider servlets being run directly with GET requests, rather than initiated by forms. What if some parameter values are missing, etc.
- Especially strict checks placed around parameters used in SQL statements, to prevent SQL injection attacks