XJCO2011 Web Application development

Coursework 2

Support

Support for this coursework will be made available during the scheduled lab classes.

Preliminaries

This coursework is worth **60%** of the overall module grade. The coursework has a total of **60** marks available. The deliverable of this piece of coursework is a complete web application. The files should be compliant to HTML5 and CSS3 standards. You are required to submit a short description of the purpose of your website by the end of week 6 via the VLE.

Requirements

Take care in reading the specification. You will be penalised if you fail to meet any of the requirements.

- All pages must conform to the HTML5 standard.

- All style sheets must conform to CSS3 standards.

- All styling should be done in a separate style sheet.

- You must not use any editor which assists in the creation of web pages, i.e. Dreamweaver and similar are not permitted.

- Your coursework solution must utilise the Flask web framework.

- Your coursework must be deployed and accessible somewhere (see section below).

- All images or text used in the deliverable should be appropriately references and copyright should be obtained if you are using images.

Specification

You should design, implement, and deploy a web application of your choosing. Your application should incorporate the following features:

- Web forms allowing the user to enter data (including client side and server side validation).

- A database to store information.

  At least two models

  Many-to-many relationship

- The use of sessions and/or cookies.

- Authentication.

- Appropriate styling for the web application.

- A set of unit tests.

- Appropriate logging.

Additionally, the website should include **at least one** of the following features:

- Bootstrap & jQuery

- Advanced feature of HTML5, i.e., geolocation or local storage

- AJAX or Flask-RESTful

Possible ideas that might be implemented for this coursework include:

- a social media platform

- an e-commerce website

- a blogging platform

- a personalised record of books read by users.

Deployment

Your app must be deployed and accessible somewhere on the web. We suggest PythonAny-where. If you protect access to your site with a username and password, please be sure to provide that in the document you submit. You are welcome to deploy your app with a custom domain name but it is not required and will not earn you extra marks. Use of version control (like git) is suggested but not required, and not using it will not cause you to lose marks.

Final deliverables

You should submit the following;

- A zip file containing all resources to run the web application.

  [45 marks]

- A document in **pdf** format, containing the following

  - a statement of the purpose of your website and a list of features implemented.
  - a link to the deployed website and username/password if required to access.
  - an analysis and evaluation of your web applications architecture. This would cover all sections listed in the specification.
  - the evaluation should also consider user experience relating to the design decisions.
  - a description of potential security issues your web application might encounter and how your have mitigated to remove/reduce their impact.
  - any references that are required for the content you have used.

  [15 marks]

Submission

Your files must be submitted as a Zip archive. No other format will be accepted. Your solution should be submitted via the Blackboard VLE (Minerva) before the deadline. All submissions will be submitted to plagiarism detection software.