Web Application Development 2

Lab briefing sheet: weeks 7-12

Introduction

During the lab sessions for these weeks you will be mainly working on your WAD2 Project within small teams. It is also recommended that you continue working on Rango beyond Chapter 10 (although this will not be assessed), as this will provide valuable skills in connection with the Project. The group project is worth 40% of this course's marks, broken down as in the table below. There is no lab or lectures in week 6. During weeks 7-12 you will have the following assessment deliverables:

Exercise	Weight	Deadline
Design Specification	10%	Friday 5 March, 10.00pm
Project Presentation and Demo	5%	Thursday 1 April, 6.30pm
Project (web application code)	25%	Thursday 1 April, 6.30pm

All of the above exercises will be done within your groups. Group assignments have been made apparent to you through Microsoft Teams. You should aim to make contact with the other members of your team as soon as possible, to begin working on your assignment.

WAD2 Team Project

All of the above assessment deliverables are connected with the WAD2 Project, the major part of which will involve the development of a web application of your choosing. Your web application should be developed using Python, Django, HTML, CSS and associated technologies including Javascript, JQuery and AJAX.

The implementation of your web application should draw on the skills that you have built up during the development of Rango. Teams are free to use their own ideas when deciding what to build, however there are some basic expectations, as follows:

• the app should involve user authentication;
• it should certainly interact with some kind of model stored in a database;
• it should be visually appealing and have an intuitive user interface;
• overall the functionality supported should be rich enough in order to allow you to demonstrate an understanding of the technologies listed above.

Beyond these guidelines, it is up to you, though if you do need some ideas, the separate Web App exercise sheet lists some example projects from previous years.

Design Specification

Having discussed your Project ideas within your team, you are required to come up with a Design Specification, which will provide a whole range of details regarding the design of the web application that you intend to implement. This will include an overview, user personas, a specification, system architecture diagram, ER diagram, wireframes and a site walkthrough.

The Design Specification is worth 10% of the overall assessment of the course and is due in by **Friday 5 March at 10.00pm**. One submission per team is required. Your Design Specification should comprise a pdf document; to produce this, PowerPoint is recommended, though this is not mandatory. More information about this exercise is contained in the separate document for the Design Specification.

Presentation

During the final week of semester each team will be required to present their project to their tutor. The presentation should include material from your Design Specification (hence the suggestion to arrange that document in terms of a slideshow presentation) and should also include a demonstration of the web application that you have built. You will record this as a video, and submit it by **Thursday 1 April at 6.30pm**. The weighting for this component of the assessment is 5%. More information about this exercise is contained in the separate assessed exercise document for the Project Presentation.

Project

After developing your web application you should host it on PythonAnywhere and ensure that the latest version has been uploaded to GitHub. Your application will be assessed by your tutor on the basis of (i) deployment (how easy it is to deploy your application on the tutor's own machine), (ii) functionality (how feature-rich your application is), (iii) look and feel (the quality of the user interface) and (iv) code (how well the organisation of your code adheres to the principles that you learned during the development of your Rango app). The deadline for submitting your Project is **Thursday 1 April at 6.30pm** and the weighting for this component of the assessment is 25%. More information about this exercise is contained in the separate assessed exercise document for the Project.

Deltas

Teamwork is an important part of software development: in industry, large software development tasks are constantly being undertaken in teams that can vary in size from two to several hundred. In any team it is recognised that people will contribute in different ways. It is important to ensure that you are always aware of your role and that you have an opportunity to make a meaningful contribution to the project at all times.

However for some projects it is the case that some people contribute more than others, and with this in mind we will be using deltas as a way of adjusting the team mark in order to arrive at an individual's mark for the team-based components of the course (Design Specification, Presentation and Project). A delta typically adjusts the team mark up or down by 0 or more bands for a given individual according to their contribution.

The computation of these deltas will be informed by the percentage scores that each member of the team will provide, which gives a numerical estimate of the proportion of the overall effort undertaken by each person (including themselves). If a tutor has any doubt about an individual's contribution, they may refer to his/her GitHub commit logs. This is another reason to ensure that you commit often!

Example: team T has four members, namely W, X, Y and Z. Each person states that W and X contributed 25%, whilst Y contributed 30% and Z contributed 20%. The overall team mark was B1 for the Design Specification, Presentation and Project taken together. The deltas for W, X, Y and Z are 0, 0, +1 and -1 respectively. Thus W and X each obtain B1, Y obtains A5 and Z obtains B2. Note: this is just for illustrative purposes and does not reflect any particular rule that might be used to construct deltas from points scores in practice.