Web Application Development 2

Lab briefing sheet: weeks 6-11

Introduction

During the lab sessions for these weeks you will be mainly working on your WAD2 Project within teams of 4 (some teams will have size 3 or 5). 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. During weeks 6-11 you will have the following assessment deliverables:

Exercise	Weight	Deadline
Design Specification	10%	Friday 22 February, 6.30pm
Project Presentation and Demo	5%	Your week 11 lab session
Project (web application code)	25%	Friday 22 March, 6.30pm

All of the above exercises will be done within your teams. Teams assignments can be viewed by logging into the WAD2 web app (http://www.dcs.gla.ac.uk/wad2). You should aim to make contact with the other members of your team by the start of your week 5 lab session.

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 your Rango app. 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 following section lists some example projects from previous years.

Example Projects

The following web applications were developed by project teams in previous years:

- *Rate My Beard*
  - Users with beards can upload photos inviting feedback; other users can login, view photos and give feedback

- *GU Grub Guide*
  - Users can leave ratings for restaurants and view other users' ratings
- *UnNoobMe*
  - Students seeking private tutors and private tutors seeking clients can be allocated to one another
- *Does my MSP Represent Me?*
  - Users can find out information about how their MSP is voting in Parliament
- *TripShare*
  - Users can post information about their upcoming trips, browse / search for trips and request to join a specific trip
- *Bargain Radar*
  - Small businesses can post their discounted deals; customers can browse deals and add them to baskets
- *SHAKESbeer*
  - Allows users to contribute cocktail recipes; users can browse and search over, and rate and comment on, cocktails
- *FilmBook*
  - Users can login and browse, search and rate movies; film producers can login and upload new films so that they can be rated
- *Federated Health Search Application*
  - Users can login and browse, search and rate movies; film producers can login and upload new films so that they can be rated
- *Zombie Survival*
  - A game of search and survival. The web application needs to interface with a series of classes that create the world in which the player needs to survive.

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 22 February at 6.30pm**. 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 assessed exercise document for the Design Specification.

Presentation

During the final week of semester each team will be required to present their project to their tutor and to the other members of their lab group. 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. This will take place during your **week 11 lab session slot** and 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 well your application reflects your design specification), (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 **Friday 22 March 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.