**Advanced Web Tech Coursework 2 – Report**

# Introduction

The web application that I was requested to create was an application produced within Levinux Environment, in Python language and using Flask Library. There were no set requirements apart from the software therefore the topic and concept for the application were up to myself to decide.

The application that I decided to produce was an online English Premier League application. The application consists of information about teams, their stadiums, the English Premier League standings, and different rankings such as the most EPL titles or the most number of goals scored by a player.

# Design

The design of the application was produced within HTML and CSS. The application has been coded from scratch without the use of any templates or pre-made code (apart from CSS used for Tooltip). The whole application is designed within modern standards of the web as well as it would fit any platform that the application would run on since the website is responsive and it’s able to display on any form of display.

The application design has been split into three sections, the header, content, and footer section. In the header section of the application, the logo of the English premier league is displayed with the navigation that links to pages such as teams, stadiums, table and rankings.

The second part of the application is the content section which is located below the header section. In this section, all the content is displayed to the users depending on the page they are currently on.

The last part of the app is the footer which is just below the content page which displays simple copyright information with the year of production as well as links from the navigation.

The Python code that was produced allows the application to function properly and to display data. There have been many different routes created within the application that display JSON data to the users as well as links between different templates and similar pages. Also, error handling has been added to display error messages if the users find themselves in a page that doesn’t exist. In addition to that, logging has been implemented to record any errors or requests made on the application.

# Enhancements

The two enhancements that I would add to my application is a login system with the personalisation of a profile and connecting my application to the external API. The logging system would allow the users create their own accounts on the application as well as have their own profile in which they would be able to select their favourite football team as well as put their own personal information about the team they support. This type of enhancement would make the users feel more comfortable in using the website as they will have something that they can customize to their own liking.

The use of external API would enhance the application in many ways. By using external API the data displayed on the application would always be up to date without the need to manually insert data into JSON. Apart from that, other functions could be implemented such as live scores for the matches as well as statistics used from the previous seasons and information about players that would make the application more interesting.

# Critical Evaluation of the app

The premier league application was produced to a high standard in terms of design. The colours chosen for the website, reflect the current palette used by the official English Premier League website which fits the application very well. The design itself is simple and easy to follow with the data being presented with clear readable font. The main theme of the design is the use of images and implementing data around it. The design of the application could have a better use of white space to fill in the empty sides of the application with more content.

The application code is properly organised with appropriate indentation across all the files with good use of commenting to describe each structure of the code and its purpose. The use of error handling with custom template allow the application to have meaningful messages for its users if that entered pages that doesn’t exist. Also, the use of logs is beneficial as all the requests and errors are recorded for code debugging in case the application breaks.

The application could use a little bit of more python functions such as “request” or “redirect url” as well as sessions which could connect with the login system.

# Personal Evaluation

With the skills and experience gained from coding of the first application, the coding of the second application went much smoother and easier. To start coding second application I have started by creating my folder directories to src, templates, static and images. The first few things that I created was a basic structure of HTML templates with the navigation links in place to the routes created in the python file. As I went on, I started adding my JSON data to display team and stadium information.

Once all the content for the application have been finished I have moved on to implementing features that I didn’t implement in my first application. The first new implementation was the error handling of the code 404 which is used to tell the user that the page they want to access, doesn’t exist. The implementation was simple as I have used the version from the workbook provided which worked good.

The second implementation that I added was logging. I once again followed the steps in the workbook and I managed to create a logging application. The first version of logging application was external which only worked on this specific application and not on my premier league application. Therefore, to implement logging into my own application, I have put the code from the logging application into my own app which again worked well with not much errors. I have added logging for all my routes except the ones which had a specific variable as by using different combinations of “url\_for” the application always gave an error about not providing data for the variable, which in the end I left to focus on polishing my app since I was running out of time.

Due to lack of time and not finding a free API, I couldn’t implement some extra functions to the application. The functions that I wanted to implement was live scores from the English Premier League as well as a table of standings which would update itself based on the API instead of manually inserting data into JSON.

In comparison to the last application I have learned new skills in the more advanced areas such as logging, config files and error handling. I feel that I have produced a good application with a good design and an appropriate use of rendering templates and using JSON to display data. For the future, an implementation of login and registration system would enhance the application even further.

# Summary of resources

Tooltip code:

W3schools.com. (2016). *Google*. [online] Available at: http://www.w3schools.com/howto/howto\_css\_tooltip.asp.

Images:

Google.co.uk. (2016). *Google*. [online] Available at: http://www.google.co.uk.

Information (teams, stadiums etc.):

Wikipedia.org. (2016). *Wikipedia*. [online] Available at: <http://www.wikipedia.org>.

Livescore.com. (2016). *Wikipedia*. [online] Available at: http://www.livescore.com.