

Open Source Web Programming Assignment

Section 1 (Presentation on Open Source Software) presented during the tutorial session of **Tuesday 20th November (week 9)** – 30% of overall mark

Section 2 Part a (Specification Document) handed in on **Thursday 11th October 2012** – 10% of overall mark

Section 2 Part b (Demonstrations during the week beginning 7th January 2013 – 60% of overall mark

Section 1 – Presentation on Open Source Software

Learning outcome 3

To be completed in groups of 4

You are required to complete a presentation on the Apache HTTP Server as an example of open source software.

Your presentation **will last for no more than 10 minutes with an additional 3 minutes for questions.**

All group members will be considered as having given an equal contribution unless the group indicates otherwise. It is entirely up to the group how the presentation is run but questions may be directed at any group member.

Your presentation should include:

- a description of the Apache HTTP Server
- a description of the software licensing restrictions under which the Apache HTTP Server is usable
- whether the Apache Software License (<http://www.apache.org/licenses/LICENSE-2.0>) is compatible with the GNU General Public License v3 (<http://www.gnu.org/licenses/gpl.html>) and why this might be important
- whether or not you (as a group) consider that the adoption of an open source license has contributed to Apache's success and, if so, in what way it has done so.

References to your sources of information are required and should be supplied at the point in the presentation where they are used.

Section 2 – Implementation of an Online Project Task Tracking Application

Learning outcomes 1 and 2

To be completed individually

Scenario

General

You will be building a web application that allows authorised users to create personal projects. Users should be allowed to populate their projects with tasks that they can subsequently mark as completed.

A project should have at least:

- a name
- a description
- a creation date
- a 'last modified' date.

A project task (the individual tasks that the project is populated with) should have at least:

- a name
- a description
- a creation date
- a 'last modified' date
- a 'complete by' date
- a 'completed on' date.

These entities should also include any other values necessary for the functionality of your web application according to the criteria below.

Criteria

Users should be able to:

- create, save, edit and delete an online project
- create, save, edit and delete project tasks within their projects
- copy project tasks from one project to another
- change the order of projects within a 'master' list
- change the order of project tasks within a project.

Part a – Specification Document

Produce an initial specification document for user functionality based upon the above description of the application. This should take the form of an exhaustive list of functions that the application will need to demonstrate.

Following the Specification Document hand-in date the Marking Criteria section at the end of this document will be expanded to show details of the required functionality.

Part b – Web Application Implementation

Your demonstration will last for **no more than 15 minutes**

An electronic copy of your implementation on a labelled disc is to be handed in at the demonstration

- Create application, based upon the specification document, making use of PHP, Ajax, XHTML (strict) and CSS.
- Demonstrate the use of XML or JSON, and object oriented programming techniques
- Devise and implement a test plan for your web application – **results to be shown during the demonstration.**

Learning Outcomes

1. Plan and program open source web applications with database connections
2. Devise test plans to test web programs
3. Reflect upon the current open source programming / scripting used to create web applications

Marking Criteria

Section 1 – Presentation on Open Source Software

70 – 100

The presentation will be clear and concise in describing the Apache HTTP Server and an understanding shown of what constraints/freedoms are imposed by the Apache License (with examples).

There will be an assessment of how the application of the principles of the Apache License is compatible with the GNU Public License and an understanding shown of the implications of this assessment.

There will be a clear and concise summary of an investigation into the how the adoption of open-source principles have contributed to the success (or failure) of the Apache HTTP Server.

A high level of reading in the area will be exhibited with all sources correctly referenced. All points will be fully supported by referenced sources and correctly integrated into the presentation to show understanding of the material presented. References will be peer-reviewed where appropriate and will show quality and depth of reading in the area.

60 – 69

The presentation will be clear and concise in describing the Apache HTTP Server and an indication of the constraints/freedoms imposed by its use.

An assessment will be made of the compatibility of the Apache License with the GNU Public License.

An investigation will be presented into how successful the Apache HTTP Server has been with an indication given of how the Apache License has contributed to this.

Reading in the area will be exhibited with all sources correctly referenced. Referenced sources will be widely used and used correctly within the context of the presentation. References will be peer-reviewed where appropriate and will show reading in the area.

50 – 59

The presentation will describe the Apache HTTP Server.

The Apache License will be described and a good understanding shown of the constraints/freedoms imposed by its use.

An assessment of the success of the Apache HTTP Server will be made with an opinion expressed on the contribution of the Apache license to this success.

Reading in the area will be exhibited with sources referenced. Referenced sources will be used within the presentation to support the content. References will be of good quality and will show reading in the area.

40 – 49

The presentation will describe the Apache HTTP Server.

A general understanding of open-source software development and how it relates to the use of the Apache HTTP Server will be demonstrated.

An assessment of the success of the Apache HTTP Server will be made.

There will be evidence of reading in the area with all sources referenced.

References will be correctly used and will show reading in the area. Referenced sources will be used within the presentation to support the content.

Section 2 Part a – Specification Document

70 – 100

There will be a categorised list of functions showing a full and clear understanding of Section 2 of the assignment.

The list of functions will differentiate between functionality required by the user and functionality required by the application.

The list of functions will show a clear understanding of the difficulties that must be overcome by a web application where there is a requirement for authorised users to store and view data.

60 – 69

There will be a categorised list of functions showing a clear understanding of Section 2 of the assignment.

The list of functions will show functionality required by the user and functionality required by the application.

The list of functions will account for some of the difficulties that must be overcome by a web application and allow for authorised users to store and view data.

50 – 59

There will be a categorised list of functions covering the criteria supplied in the assignment scenario.

The list of functions will show most of the functionality required by the user and the application.

The list of functions will show some understanding of the difficulties of allowing authorised users to access data.

40 – 49

There will be a list of functions covering most of the criteria supplied in the assignment scenario.

The list of functions will take account of the client/server nature of the web.

Section 2 Part b – Web Application Implementation (to be shown after Thursday 11th October)

The University Regulations regarding extenuating circumstances and plagiarism will apply.