Masters Report

Due: 5pm Monday, 4 November 2019

Weight: 15%

Late penalty: 5% of the awarded marks per day late. Late submissions will not be accepted after 5 calendar days.

Overview

Objectively analyse your Assignment 2 implementation by discussing the techniques and technologies used. After considering and justifying your approach, you will be asked to discuss an alternative implementation in the context of web application security.

Part A: Implementation Justification

Provide a detailed review of the Single Page Application (SPA) you developed for Assignment 2. Your analysis should focus on the functional operation of your application (how it works) and include an expanded explanation of the structure, style, and functionality beyond what you prepared for Assignment 2. Reflect on the choices you made whilst creating your SPA and justify why you made them. You may incorporate code extracts to help support your discussion.

As part of your review, describe the purpose of each file, the way it fits within the application, and any functions it provides/uses. Function descriptions should detail the operation within the script file and also the mechanism by which the function is invoked. Of course, you should only discuss those aspects that are relevant to *your* Assignment 2 implementation and avoid discussing elements that you did not include.

Part B: Feasibility Analysis

Investigate the ways in which an Apache/MySQL/PHP/Perl (AMPP) web development *stack* could be used to deliver a similar experience to the SPA developed for Assignment 2. In this configuration, an Apache web server environment is coupled with MySQL (or alternatively MariaDB) for primary database storage and PHP/Perl for server-side scripting. You are not required to reimplement your SPA using these technologies.

Explain how each of the components of this alternative stack could be used to create a secure web application that prevents unauthorised creation and modification of news items that could be considered unethical or contravene the legal requirements of any stakeholders. As part of your discussion, identify the potential security issues with your Assignment 2 SPA implementation and show how the alternative approach would address these issues.

Submission

Submit your report as a PDF file to the submission box on FLO by 5pm Monday, 4 November 2019. Your report should conform to accepted norms for style and presentation of academic writing (use British English as the document language) and be between three and four (A4) pages in length. All references should be cited in-text and included in a bibliography. Any web site used as a resource should be trustworthy and referenced appropriately. Use either Author-Date (Harvard) or IEEE referencing format.

You will need to have completed the Academic Integrity quiz with a score of 100% before you are able to submit your report on FLO. If you have previously completed the quiz in another topic, you do not need to complete it again. Refer to the link at the top of the *Assignments* module on FLO for access to the quiz.

This is an individual assignment worth 15%.

Additional information

The <u>Student Learning Centre</u> (SLC) offers online resources and drop-in sessions to help with academic writing, referencing, and research skills. The SLC Learning Lounge at Tonsley is open from 1–4pm each Thursday in room 5.18.

As required by university policy, a report on your submission will be generated by the TurnItIn text-matching software, which compares your work with a large body of material and generates a report of any similarities. A drafts submission box is available on FLO for you to check your work before your final submission. Information on academic integrity, including the use of TurnItIn and interpreting its reports, is available on the <u>Academic Integrity for Students</u> FLO page.