# THE UNIVERSITY OF HUDDERSFIELD

# **School of Computing and Engineering**

# **ASSIGNMENT SPECIFICATION**

| Module         | Details                  |
|----------------|--------------------------|
| Module Code    | CHT2520                  |
| Module Title   | Advanced Web Programming |
| Course Title/s | Various                  |

| Assessment          | Weighting, Type and Contact Details                                   |
|---------------------|---|
| Title               | Assessment 1: Building a web application with database                |
| Weighting           | 40%   |
| Mode of working for | Individual  |
| assessment task     | Note: if the assessment task is to be completed on an individual      |
|                     | basis there should be no collusion or collaboration whilst working on |
|                     | and subsequently submitting this assignment.                          |
| Module Leader       | Matthew Mantle  |
| Module Tutor/s      | Matthew Mantle  |

| Submission           | Submission and Feedback Details   |
|----------------------|---|
| Hand-out date        | Term 1: Week 1  |
| How to submit your   | You need to do several things to submit the work:   |
| work.                | <ol> <li>Upload your web application to GitHub. Further details on exactly how to do this will be given in Week 5.</li> <li>On Brightspace, under Assignments, upload the README for your repository and provide a link to your GitHub repository.</li> </ol> |
| Submission date/s    | 15/11/2024 by 12:00 noon – if you have any technical issues   |
|                      | submitting your work, please contact the Module Leader as soon as   |
|                      | possible.   |
| Expected amount of   | 24hrs (assuming you have completed all the module practical work  |
| independent time you | fully), 3x8hr days  |
| should allocate to   |   |
| complete this        |   |

| Submission              | Submission and Feedback Details  |
|-------------------------|--|
| assessment              |  |
| Submission type and     | You need to do several things to submit the work:  |
| format                  | <ol> <li>Upload your web application to GitHub. Further details on exactly how to do this will be given by Week 5.</li> <li>On Brightspace, under Assignments, upload the README for your repository and provide a link to your GitHub repository.</li> <li>In this module, we are using frameworks and 3<sup>rd</sup> party tools. In the event the module tutor can't run your application you will need to be available to demonstrate the web application you have developed.</li> </ol> |
| Date by which your      | 06/12/2024   |
| grade and feedback will | Note: This is a maximum of three working weeks after the   |
| be returned             | submission deadline.   |

| Additional Guidance | Details  |
|---------------------|--|
| Information         |  |
| Your responsibility | It is your responsibility to read and understand the <u>University</u> |
|                     | regulations regarding conduct in assessment.                           |
|                     | Please pay special attention to the assessment regulations on          |
|                     | Academic Misconduct.   |
|                     | In brief: ensure that you;   |
|                     | 1. DO NOT use the work of another student - this includes students     |
|                     | from previous years and other institutions, as well as current         |
|                     | students on the module.  |
|                     | 2. DO NOT make your work available or leave insecure, for other        |
|                     | students to view or use.   |
|                     | 3. Any examples provided by the module tutor should be                 |
|                     | appropriately referenced, as should examples from external             |
|                     | sources.   |
|                     | Further guidance can be found in the SCEN Academic Skills Resource     |

| Additional Guidance   | Details  |
|-----------------------|--|
| Information           |  |
|                       | and UoH Academic Integrity Resource modules in Brightspace.                |
| Guidance on using AI: | Level 1 - Not Permitted  |
|                       | The use of AI tools is not permitted in any part of this assessment.       |
|                       | Ensure any AI generated material is clearly identified and referenced      |
|                       | both within the assignment and in the reference list, using:               |
|                       | <u>Text reference builder</u>  |
|                       | Image reference builder  |
| School Guidance and   | If you experience difficulties with this assessment or with time           |
| Support               | management, please speak to the module tutor/s, your Personal              |
|                       | Academic Tutor, or the Student Progress Mentors. Student Progress          |
|                       | Mentor – useful links.   |
|                       | Brightspace Module - <u>SCE Student Progress Mentors</u>                   |
|                       | (hud.ac.uk).   |
|                       | Email - sce.progress.mentors@hud.ac.uk                                     |
|                       | Booking an appointment - <a href="http://hud.ac/rgl">http://hud.ac/rgl</a> |
| Requesting a Late     | It is expected that you complete your assessments by the published         |
| Submission            | deadlines. However, it is recognised that there can be unexpected          |
|                       | circumstances which may affect you being able to do so. In such            |
|                       | circumstances, you may submit a request for an extension.                  |
|                       | Extension applications must be submitted before the published              |
|                       | assessment deadline has passed.  |
|                       | To apply for an extension, you should access the Extension System          |
|                       | on MyHud.  |

| Additional Guidance      | Details   |
|--------------------------|---|
| Information              |   |
| Extenuating              | An EC claim is appropriate in exceptional circumstances, when an                  |
| Circumstances (ECs)      | extension is not sufficient due to the nature of the request.                     |
|                          | You can access details on the procedure for claiming ECs, on the                  |
|                          | Registry website; Consideration of Personal Circumstances -                       |
|                          | <u>University of Huddersfield</u> , where you can also access the <u>EC Claim</u> |
|                          | <u>Form</u> .   |
|                          | You will need to submit independent, verifiable evidence for your                 |
|                          | claim to be considered.   |
|                          | Once your EC claim has been reviewed you will get an EC outcome                   |
|                          | email from Registry.  |
|                          | An approved EC will extend the submission date to the next                        |
|                          | assessment period (e.g July resit period).  |
| Late Submission          | Late submission, up to 5 working days, of the assessment submission               |
| (No ECs approved)        | deadline, without an approved extension will result in your grade                 |
|                          | being capped to a maximum of a pass mark.   |
|                          | Submission after this period, will result in a 0% grade for this                  |
|                          | assessment component.   |
| Tutor Referral available | YES   |
| Resources                | Please note: you can access free Office365 software and you                       |
|                          | have 100 Gb of free storage space available on Microsoft's                        |
|                          | OneDrive - <u>Guidance on downloading Office 365</u> .                            |
|                          |   |

## **Assignment Aims**

For students to demonstrate basic skills in developing database driven web applications using an MVC framework.

### **Learning Outcomes**

#### **Knowledge and Understanding Outcomes**

 Discuss underlying principles of contemporary web application design and development.

#### **Ability Outcomes**

4. Create web applications with industry best practices.

#### **Assessment Brief**

You are required to develop a basic web application using the Laravel framework using a scenario of your choice (see below for information regarding choice of scenario) and document the work you have completed using the project's README file. There are very specific requirements for the scope of this assignment. Please read the following carefully:-

#### The Web Application

The web application should meet the following key requirements:

- The application must be built using the Laravel framework.
- The application must use a **single** database table. Although you are restricted to a single table, consideration should be given to the design of the database. For example, the table should be in at least first normal form.
- The application should feature suitable migrations and seeders to allow for the easy creation of the database table during the marking process.
- The application must demonstrate basic CRUD operations using this table.
- The application must demonstrate effective and appropriate use of the core components of the Laravel framework routes, controllers, models, views, blade directives, eloquent etc.
- The application must be styled using CSS for desktop users (screen resolution of 1366x768).
- The application must be easy to use and provide suitable navigation. This is not about complex use of CSS, instead basic good practices should be adopted e.g. colour contrast, readability, persistent navigation etc.

Completing all the above requirements will result in approximately a B grade. For extra credit attempt the following additional requirements:

• The application should implement a search facility.

- The application should implement pagination.
- The application should provide user input validation using the Laravel framework (not through HTML attributes).
- There is more ambitious use of CSS e.g. for page layout, styling forms.
- Demonstrate a deeper understanding of key Laravel features e.g. templating and components, constructing more complex queries using eloquent, route resourcing.

You may be able to think of other ways to improve the application with these core requirements. Please discuss these ideas with the module tutor to make sure they are suitable.

The app must stick to these key requirements. You should NOT:

- Implement authentication and authorisation i.e. no login systems.
- Use more than a single table. We want to focus on the basics in this assignment.
- Use any CSS frameworks or libraries.
- Use any JavaScript.

There are zero mark for using any of the above. In fact, integrating such features at this stage may even result in you being penalised or even failed. Assignment 2 involves extending the work from Assignment 1. You will get opportunity to implement more advanced features for the second hand-in.

### The README file (500 words)

The README file should meet the following requirements:

- The document is well structured, using suitable basic markdown features.
- The document is clearly written with accurate spelling and grammar throughout.
- The README file briefly introduces and explains the scenario.
- The README file describes the functionality that has been implemented.
  - If you have used additional features to show a deeper understanding of Laravel e.g. components, validation, it's important to highlight these, and describe their use, so you can gain credit.
  - If you feel you have used elements of good practice, again these should be highlighted in the README.

## **Choosing a Scenario**

You are free to choose any scenario you like within the following constraints

- It does not breach the University's regulations.
- It is original and unique to you.
- Do not base your assignment on films (like the examples from class). Similarly, avoid common web app examples such as a guestbook, product catalogue, jobs board, todo

list etc. Choose something that is original to avoid any possible accusation of academic misconduct.

You should discuss your idea with the module tutor to make sure it is appropriate.

# **Marking Scheme**

## Laravel Web App (70%)

| Grade | Descriptor  |
|-------|---|
| A++   | A truly outstanding piece of work. Meets all the key and additional requirements with no room for improvement. The work shows a depth of understanding and typically features something that is novel and challenging to implement while still in keeping with the assignment requirements. |
| A+    | Fully meets the key requirements and additional requirements with no significant room for improvement.  |
| A     | Fully meets the key requirements, significant work has been done on the additional requirements, but these still have room for improvement and/or are incomplete.   |
| В     | Fully meets the basic requirements with no significant areas for improvement. The additional requirements haven't been attempted or Meets basic requirements with room for improvement. Additional requirements attempted, but not fully working.   |
| С     | Meets the majority of the key requirements showing a solid understanding of fundamental Laravel features, but not all key requirements met.   |
| D     | Doesn't meet the key requirements, but still manages to implement some functionality, and show a basic understanding of the Laravel framework.  |
| E/F   | Fails to meet the basic requirements. Fails to show understanding of how to develop web apps using Laravel.   |

## README file (30%)

- A README file that meets all the requirements will be awarded the same mark as the Laravel Web App it describes.
- Marks will be deducted if the requirements for the README document aren't met.