RTO Number: 41143 CRICOS Code: 03420M

Assessment 2: Web Project

Unit and Assessment Details

Assessment Title	Web Project
Unit/Cluster Code	Web Development Cluster
Unit/Cluster Title	ICTWEB501 - Build a dynamic website ICTWEB502 - Create dynamic web pages ICTWEB505 - Develop complex web page layouts ICTWEB506 - Develop complex cascading style sheets ICTWEB507 - Customise a complex ICT content management system
Course Code Title	ICT50115 – Diploma of Information Technology
Assessor Name	Hari Sethi
Trainers' Names	Augusto Nascimento Hari Sethi
Assessment Date/Due Date	04/September/2018

Assessment Instructions for Students

1. This assessment has five (5) tasks.
2. This assessment is to be completed over a period of ten (10) weeks in the assessment time allocated in classroom, during supervised self-study periods and/or off campus.
3. Write your answers in the space provided below each question. Your answers should be well formatted that are clearly legible. Guidelines: Use Times New Roman, 12 pt size and black text colour with no background colours.
4. You must submit the completed assessment via LMS by the specified assessment due date.
5. If your first attempt is unsuccessful (NYS), you will be given two further opportunities to resubmit your assessment. A missed assessment submission on a due date will be considered an assessment attempt.
6. If you require any clarification or support to complete this assessment, ask your assessor.
7. For a satisfactory result in this assessment, you must correctly answer all aspects of all the questions.
8. Your assessor will assess you individually in this assessment.
9. You must use your own words to write your answers.
10. Plagiarism, collusion and cheating are strictly prohibited [see NIT Student Handbook Section 13.10]. Your assessor may check your work for plagiarism, collusion and cheating using tools such as *Grammarly Plagiarism.*
11. If you use information in your answers from any published sources (print or online), cite references at the bottom of each answer. Refer to Academic guide on NIT LMS.
12. Make sure you check grammar and spellings in your assessment before submission, specifically using tools such as Grammarly or spellcheck.
13. Detailed information on assessment procedures is available in NIT Student Handbook [Section 13].
14. To appeal against assessments decisions please refer to NIT's Complaints and Appeals Policy.
15. Support is available for students with special needs or learning difficulties including language, literacy and numeracy. If you require any support or modified equipment to complete this assessment, please ask your assessor.
16. Feedback of this assessment will be provide using Result-sheets which will be provided to you via LMS. You can also contact your assessor to get verbal feedback.
17. Only .docx (word documents) and .pdf (PDF documents) are accepted as assessment submission for this assessment
18. Please use the following naming convention when saving and submitting extra documents with your assessment file: **Student ID_Unit Code_AssessmentNumber.docx** or **Student ID_Unit Code_AssessmentNumber.pdf**
19. You must keep a copy of all submitted work.

Required Resources and Tools

The following resources and tools are required to complete this assessment and will be made available to you at the time of assessment:
1. Computer Lab (Computers, Word processing software, Internet access)
2. Software, hardware and network equipment used in assessment activities
3. Technical manuals and online help for software, hardware, and network equipment

Assessment Overview:

This assessment requires you to develop a fully functional dynamic website, a Content Management System (CMS) using HTML, PHP, CSS, JavaScript and MariaDB (MySQL fork). You will also be required to configure the web server using XAMPP.

To complete this project assessment, you must read the scenario below and carry out all the project tasks specified below.

Scenario

You are an independent software developer and you have been approached by *Mate Springs*, a spring manufacturer that recently expanded to 3D printed springs. They are bringing their business to the 21st century, and want to adhere to the current web standards. They have currently two lines of production, industrial springs, and 3D springs, both have very different raw material origins and should be kept in different sections of the products page.

The current website of Mate Springs is static, and they have a lot of difficulty updating it given that the products, its specifications, and prices change on a frequent basis.

The goal is to develop a CMS based website, where a non-technical person can change the website content in an easy manner.

Task 1: Role-Play – Identify and Clarify requirements

You are required to carry out this task in presence of your Assessor on the date specified below or on a date and time agreed with your assessor.

Assessment date	17/07/2018 or on a date and time agreed with your assessor
Submission items	None

Mate Springs's Marketing Manager Paul Burton, whose department is responsible for maintaining the company website has briefly explained you over the phone that they want to have a land page (homepage), a products page and an about us page but they are not sure what else they need. You are required to meet Paul Burton (your assessor) to identify and clarify the exact business needs.

To successfully complete this role-play, you will be required to:
1. Ask appropriate questions to gather requirements for developing this CMS based website, and
2. Take notes on the client's expectations for the purpose and functionality of the website as well as the basic user-interface layout.

Task 2: Document and confirm requirements

Assessment date	24/07/2018 or on a date and time agreed with your assessor
Submission items	A requirements document in PDF file format

Based on the requirements you gathered in Task 1, prepare a brief requirements document using Mate Spring's Requirements Form template. This document must:

a. Clearly, explain the purpose and functionality of the new CMS based website;
b. List all requirements
c. Contain a diagram that clearly shows the proposed structure and flow of the website.
d. Website Prototype using Mock-ups (all pages).
   - For at least one web page create a mock-up to include at least two designs for a page using different devices' screen sizes (for example Homepage mock-up for a 15" Full HD Laptop screen and a 5" Smartphone screen)
e. Technical and Architectural Requirements (an architectural design diagram) that clearly indicated the server, frameworks, data storage and other technologies required to complete the project. Your architectural design diagram must identify both client-side and server-side dynamic content/components.

Note: Before submitting the requirements document, present this document to the client (your assessor) for their approval (signature).

Task 3: Design, develop and test CMS website

Assessment due date	Not Applicable
Submission items	None

Once your requirements document (that you developed in Task 2) is approved by the client (your assessor), you can start the design and development of the CMS based dynamic website:

To complete this task successfully, you must:

a) Design a detailed Entity-Relationship (ER) diagram of the database.
b) Write code the dynamic website.
   a. The website you develop must be accessible using multiple devices/operating systems and/or browsers based on requirements specifications.
   b. Your website code must demonstrate adherence to the coding standards
   c. Your website must meet all CMS functionality requirements
c) Test the website:
   a. Make sure to test all the functionalities of the CMS website in at least three different web browsers.
   b. Test the website markup code using https://validator.w3.org/.
   c. Use the Software Test and Diagnostics Report to document the test results.

Task 4 – Project Demonstration

You are required to carry out this task in presence of your Assessor on the date specified below or on a date and time agreed with your assessor.

Assessment date	24/08/2018 or on a date and time agreed with your assessor
Submission items	None

In this task, you are required to demonstrate the CMS website that you have developed to the client (your assessor) for feedback/approval.

a)   Install and configure the CMS website that you have developed on a local machine/server.
b)   Demonstrate all features to the client (your assessor).
c)   Take feedback using Client Feedback Sheet.
d)   Adjust your application based on the client's feedback.
e)   Go through the user acceptance test with the client (your assessor)

Task 5 – Final submission

Assessment due date	04/09/2018 or on a date and time agreed with your assessor
Submission items	• An ER Diagram in PDF file format • All source code (complete project) in a Zip file. • SQL scripts or exported database file. • Software Test and Diagnostics Report in PDF file format • Client Feedback Sheet in a PDF file format

Once you have adjusted the CMS based on the client feedback, submit the final versions of above-listed submission documents, source code, and database file.

End of assessment.