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| **Qualification details** | | | |
| **Training Package Code and Title** | ICT - Information and Communications Technology (Version 8.0) | | |
| **Qualification National Code and Title** | ICT50220 Diploma of information Technology (Release 2) | **State code** | BGJ4 |
| **Assessment Title** *(as per DAP)* | Assessment Task One (Individual Project) | | |
| **Unit National Code & Title** | ICTWEB513 Build dynamic websites | | |
| ICTWEB514 Create dynamic web pages | | |

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| **Date Due** | Week Eight | | **Date Received** | | 19/07/2022 | |
| **Student Name** | Kyle Watson | | | | | |
| **Student Declaration** | I declare that the evidence submitted is my own work: | | | | | |
| **Assessor Name** | Stewart Godwin | | | | | |
| **Assessment Decision** | Satisfactory | | | Not Yet Satisfactory | | |
| **Assessor Signature** |  | | | **Date** | |  |
| **Is student eligible for reassessment (Re-sit)?** | No | Yes | | **Re-assessment Date:** | | Week Twenty |

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| **Feedback to student** | | | |
| *Via Blackboard (LMS) – Please check [Grade] section.* | | | |
| **Feedback from student** | | | |
| *Via Blackboard (LMS) – Please use [Comment] section during submission.* | | | |
| **Student signature** |  | **Date** |  |

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| **Assessment Instructions** | |
| **TO THE ASSESSOR** |  |
| Type of Assessment | Individual Project |
| Duration of the assessment | 8 class sessions (Weeks 1-8) |
| Location of assessment | Classroom |
| Conditions | Assessor to ensure that the noise levels, natural interactions and time variances are maintained as it would be in the Software Development industry.  Learners are required to complete the required tasks in class and submit the required documentation electronically via Blackboard |
| Elements and Criteria | As detailed in the assessment plan  You are required to make sure that all students meet the elements, performance criteria and oral communication items as outlined in the provided solution |
| **TO THE STUDENT** |  |
| Purpose of Assessment | You are required to show you can:  ICTWEB513 Build dynamic websites   * Demonstrate your skills and knowledge by creating, coding, debugging, and testing a dynamic website, * Establish user requirements and then research and collect information about business requirements and legislative standards, * Manage time and tasks to produce a hierarchy of web pages showing navigation.   ICTWEB514 Create dynamic web pages   * Review technical requirements for client-side dynamic content, * Apply applicable languages and technologies to develop templates for web site creation, * Test and evaluate the dynamic content and present feedback.   The student must demonstrate the ability to complete the tasks outlined in this assessment and is expected to use systematic analytical processes and effect time management to meet the goals/deadlines outlined in the DAP. |

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| Allowable Materials | Blackboard Topics, SDLC, Weekly readings (PDF), Example programs and Independent Outside of Class Activities |
| Required Resources | Web links and example code can be downloaded from the Blackboard portal.  PC with Notepad++, Turnkey Web Server, GitHub, MSOffice.  Internet Access to GitHub and www.citems.com.au/ |
| Reasonable Adjustment | In some circumstances, adjustments to assessments may be made for you. If you require support for literacy and numeracy issues; support for hearing, sight or mobility issues; change to assessment times/venues; use of special or adaptive technology; considerations relating to age, gender and cultural beliefs; format of assessment materials; or presence of a scribe you need to inform your lecturer. |
| Assessment Submission | All questions and programming activities must be attempted. All written answers must be submitted in this assessment document in the appropriate space.  Use of research tools and peers in formulating answers are acceptable – but work submitted must be your own work.  Final project documentation is to be uploaded to the appropriate area in the Blackboard course created for this unit.  If you are marked as NYS (Not Yet Satisfactory) on your first attempt, you will be provided with another opportunity to re-attempt the assessment. |
| Portfolio Description | A project of web coding tasks and written questions which should be completed in class and finished in the students’ own time on a weekly basis as per the Delivery and Assessment schedule.  Question 1 – Design Specifications  Question 2 – Web Page Content  Question 3 – Version Control  Question 4 – Design Approval  Question 5 – Website Development  Question 6 – Testing  Question 7 – Demonstration, Feedback and Signoff |

# Scenario

You have applied for the role of a Senior Web Programmer with CITE Managed Services, as part of the application process you are required to demonstrate your knowledge and skills by creating a multi-page website. The details and criteria are provided in the following paragraphs.

The multi-page website will utilise the Bootstrap framework for navigation and display information as requested. Ensure your development follows an Agile methodology that is recorded and maintained using your GitHub account.

You should consult with the CITE representative (your Lecturer) if you are unsure about any of the problems or questions in this assessment. Your primary research should focus on the resources on the Blackboard LMS and CITE web site, additional information can be collected from the Internet, ensure all sources are referenced in your submission. You must demonstrate your working website before uploading to Blackboard, your Lecturer (Assessor) will sign off to ensure all the criteria are satisfied.

## Minimum Client Requirements

* A single home web page (index.html) as the entry point into the website.
* A single contact web page (contact.html) with links to the CITE and SMTAFE websites.
* The user can navigate between all web pages using a suitably labelled navigation system.
* Navigation can be vertical/horizontal or tabbed using the appropriate Bootstrap framework.
* The navigation must be consistent across all web pages. All web pages must have a consistent theme (colours, fonts, etc)
* The user can select/click an item on the content web pages and the appropriate answer/definition will be displayed.
* The content display must be accordion or collapse; any variation must be approved by the Lecturer before implementation.
* The website must be compatible with all contemporary web browsers.
* The website must be compatible with all major devices (PC, Mobile).
* The website must be WCAG compliant where appropriate.
* The development must fully utilise all aspects of the Bootstrap framework version 5; visit the Bootstrap URL to review and select the appropriate components, https://getbootstrap.com.

## Suggested Interface Design

|  |  |  |
| --- | --- | --- |
| Graphical user interface, application  Description automatically generated | Graphical user interface, text, application, email  Description automatically generated | Graphical user interface, text, application, Word  Description automatically generated |
| Home Page | Content (accordion layout) | Content (collapse layout) |

## Question 1 Design Specification

Provide a suitable description/explanation for each client requirement, and then insert your GUI design with labels that highlight all the major features. Complete the following Design Specification template to answer this question.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Design Specification | | | | |
| Developer Name | Kyle Watson | | Date | 19/07/2022 |
| Technical Requirements | | | | |
| Requirement | | Description | | |
| 1. What is the purpose of the Website? | | The purpose of the website is to display the HTML skills and knowledge of the developer. | | |
| 2. Functionality: How will a user navigate the website and access the content? | | The user will navigate the website interface via an accordion layout with vertically stacked headers which expand to reveal further information when clicked. | | |
| 3. Cross Platform: How will the website display on various OS and Device? | | The website should scale and display itself correctly on all contemporary browsers and devices. | | |
| 4. Libraries and Frameworks: What web technologies will be used in the website? | | The libraries and frameworks used for the GUI design are contained in Boostrap v5.0 and used with CSS  The web technologies used in the website are HTML5 utilising a Bootstrap framework and libraries with CSS properties. | | |
| Prototype Specification (GUI Design Diagram and Navigation Diagram) | | | | |
| How will the website look and what GUI specifications are required? | | | | |
|  | | | | |

## Question 2 Web Page Content

Your next task is to create the content for each of the web pages on your website. You are required to research and provide suitable answers for the following groups of questions/definitions. Each group of questions/definitions must be displayed on a separate web page using a similar page layout as shown in your design.

### Content Questions (group one)

Provide a suitable answer for the following questions.

What are the principles of analysis and design?

What are website architectural requirements?

What are website design structures, including hierarchy and navigation design?

What are user-interface design requirements and production processes?

### Content Questions (group two)

Provide a suitable answer for the following questions.

What are programming controls and design structures?

What are website testing procedures?

What are website debugging methods?

What are website coding techniques?

### Content Definitions (group three)

Provide a definition for the following programming concepts.

Authentication and web security.

Hypertext transfer protocol (HTTP).

Session management.

Stateless programming.

### Content Definitions (group four)

Provide a definition for the following types of technologies.

The three major programming control structures.

Hypertext markup language (HTML) and markup languages.

Cascading style sheets (CSS).

Syntax and uses of programming languages.

## Question 3 Version Control

CITE would like you to use GitHub as the primary source control, setup an appropriate structure in your GitHub account to manage the Assessment One website development. Add a project to your repository which reflects the basic Agile development process you intend to pursue. Complete the following GitHub Version Control template to answer this question.

|  |  |  |  |
| --- | --- | --- | --- |
| GitHub Version Control | | | |
| Repository Name: | Creation of a Dynamic Web Page | | |
| URL | https://github.com/Kwatson-1/Creation-of-a-Dynamic-Web-Page | Date | 12/08/22 |
| Screen Shot(s) |  | | |

## Question 4 Design Approval

Once you have complete questions 1,2 & 3 arrange for your document to be reviewed by the Lecturer/Assessor for approval, sign off and feedback before completing the development and testing.

* Question 1 Design Specification
* Question 2 Web Page Content
* Question 3 Version Control

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Design Approval (Lecturer/Assessor use only) | | | | |
| Approver Name | Title | Signature | Date | Approved? |
| Stewart Godwin | Lecturer |  | 16/08/2022 | Yes |
|  |  |  |  |  |
| Lecturer Feedback | | | | |
|  | | | | |

## Question 5 Website Development

Develop the software components to create a website based on your prototype and design specifications. Add the content from Question 2 and enhance the fonts and background colours to satisfy contemporary web page standards. Upload your code to the Turnkey Server. Update your GitHub with the completed website code and associated files. Your code must adhere to the CITEMS software development standards. (refer http://www.citems.com.au/)

## Question 6 Testing

Ensure your code is error free and functions correctly, then test the website on several different browsers. During these tests check the web pages scale correctly and conforms to responsive web design. Secondly, test the website on several different digital devices and record any errors. Your Test Report must include appropriate evidence that your code functions as expected (references to screen captures). Complete the following Test Report template below to answer this question.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Report | | | | |
| Developer Name | Kyle Watson | **Date** | 12/08/2022 | |
| Browser compatibility test | | | | |
| Browser name | Description | | | Pass / Fail |
| Chrome |  | | | Pass |
| Edge |  | | | Pass |
| Firefox |  | | | Pass |
| Device compatibility test | | | | |
| Device Name | Description | | | Pass / Fail |
| iPhone 12 |  | | | Pass |
| Pixel 5 |  | | | Pass |
| Surface Duo |  | | | Pass |

## Question 7 Demonstration, Feedback and Signoff

Ensure your code is fully commented with your Name, ID, and Date placed above the main code body of each file. Check all the above documentation has been completed and is ready for inspection. Contact your Lecturer (Assessor) and arrange to demonstrate your working website, use the following Marking Guide and Observation Checklist to ensure you have completed all the assessment criteria.

### Assessor Marking Guide

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Marking Guide and Observation Checklist | | Satisfactory | | Feedback |
| **Questions** | | YES NO | |  |
| Q1 | Design Specifications: All fields of the Design Specification are filled in. |  |  |  |
|  | Client Requirements contain information that is correct. |  |  |  |
|  | Prototype Specifications show a detailed diagram of the GUI with explanation notes. |  |  |  |
| Q2 | Web Page Content: All the questions and definitions have been grouped and formatted onto separate pages. |  |  |  |
|  | Questions are formatted for easy access. Code uses Bootstrap 5 framework. |  |  |  |
|  | Definitions are formatted for easy access. Code uses Bootstrap 5 framework. |  |  |  |
| Q3 | Version Control: All fields of the template are filled in. There are screen shots of GitHub showing the Project and Repository. |  |  |  |
|  | Observation of GitHub reflects an Agile project methodology. |  |  |  |
|  | Observation of GitHub reflects a repository with website files. |  |  |  |
| Q4 | Website Development: All the website files have suitable comments which reflect CITE standards. |  |  |  |
|  | Observation of GitHub shows a final version of the website files. |  |  |  |
|  | Website has satisfied all the client requirements. |  |  |  |
| Q5 | Testing: All the fields in the Testing Report have been filled in. |  |  |  |
|  | Website have been tested on three different browsers. |  |  |  |
|  | Website have been tested on three different digital devices. |  |  |  |
| Q6 | Demonstration: The website functions as required, and all web components work correctly. |  |  |  |
| **General Feedback:** | | | | |
|  | **Assessment Decision**  Satisfactory  Not Yet Satisfactory | | | |

**Note:** All documentation must use the supplied templates/forms.

**Submit the zipped solution folder with relevant documents to Blackboard**

End of Assessment Task One