|  |  |  |  |
| --- | --- | --- | --- |
| **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 Three (Team Project) | | |
| **Unit National Code & Title** | ICTWEB513 Build dynamic websites | | |
| ICTWEB514 Create dynamic web pages | | |
| BSBXTW401 Lead and facilitate a team | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Date Due** | Week Nineteen | | **Date Received** | |  | |
| **Student Name** | Poorav Sharma 30045900 | | | | | |
| **Student Declaration** | I declare that the evidence submitted is my own work: | | | | | |
| **Assessor Name** |  | | | | | |
| **Assessment Decision** | Satisfactory | | | Not Yet Satisfactory | | |
| **Assessor Signature** |  | | | **Date** | |  |
| **Is student eligible for reassessment (Re-sit)?** | No | Yes | | **Re-assessment Date:** | | Week Twenty |

|  |  |  |  |
| --- | --- | --- | --- |
| **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** |  |

|  |  |
| --- | --- |
| **Assessment Instructions** | |
| **TO THE ASSESSOR** |  |
| Type of Assessment | Team Project |
| Duration of the assessment | 3 class sessions (Weeks 17-19) |
| 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.   BSBXTW401 Lead and facilitate a team   * Plan and coordinate a development team * Support and monitor a team   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. |

|  |  |
| --- | --- |
| 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. |
| Team Project Description | A team 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.  SPRINT THREE  Question 15 Final Team Report  Question 16 Final Frontend Requirements  Question 17 Final Backend Requirements  Question 18 Project Specifications  Question 19 Design Approval and Sign Off  Question 20 Website Development and Testing  Question 21 Demonstration, Feedback and Evaluation |

# Scenario

You are employed as the Senior Web Programmer with CITE Managed Services working on the creation of a multi-page client-server website for a local art gallery called Acme Arts. Your task is to use your knowledge and skills to lead the team in the final Sprint Three development. The manager of Acme Arts has agreed to sign off the Sprint One and Two Development and would like additional modification to the web-based project. The details and criteria are provided in the following pages.

The multi-page client-server website will utilise the Bootstrap framework for navigation and display of information as requested from the SQL database server. A team of three students will be selected for this project which will follow an Agile methodology consisting of three sprints. All development must conform to CITE standards and technical requirements which will be recorded and maintained using a GitHub account.

You should consult with the CITE representative (your Lecturer) if you are unsure about any of the requirements or questions in this assessment. Your primary research should focus on the resources on the Blackboard LMS and CITE website, 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.

|  |  |  |  |
| --- | --- | --- | --- |
| MILESTONE | | TASK | DESCRIPTION |
| Week 11 | Sprint One |  |  |
| Week 12 | Sprint One |  |  |
| Week 13 | Sprint One |  |  |
| Week 14 | Sprint Two |  |  |
| Week 15 | Sprint Two |  |  |
| Week 16 | Sprint Two |  |  |
| Week 17 | Sprint Three | Question 15  Question 16  Question 17  Question 18 | Final Team Report.  Final Frontend Requirements.  Final Backend Requirements.  Project Specifications. |
| Week 18 | Sprint Three | Question 19  Question 20 | Review documentation and submit for Approval and Sign Off.  Commence Final Application Development |
| Week 19 | Sprint Three | Question 20 cont…  Question 21 | Complete Final Application Development.  The Team Leader will present the Sprint Three Website. The lecturer/assessor can/will ask questions. |

# Sprint Three

As part of the quality assurance and compliance requirements the senior managers at CITE require a final report before any development can be approved for Sprint Three. This report will ensure all members of the team are working with the same baseline information. Furthermore, the report will be used to measure the progress of the project and compliance of the final submission. This is a team effort and requires equal participation from each team member, however, only the Team Leader will be assessed for this task.

# Question 15 Final Team Report

The following information must be completed by the Team Leader and approved before the commencement of any development work on Sprint Three. The team must have a meeting and confirm the final Team Leader for Sprint Three. The Team Leader is directly responsible for all documentation and submission requirements for Sprint Three. Complete the following Final Team Report template to answer this question.

|  |  |
| --- | --- |
| Final Team Report | |
| Team Details (Sprint Three) | |
| Team Name: |  |
| Team Leader: | Poorav Sharma |
| Team Member #1 | James Boyd |
| Team Member #2 | Zachary Purkiss |
| Team Meeting Details | |
| Enter the location, date, time, minutes. | |

## Final Website Design Requirements

The manager at Acme Arts has decided to offer a free communications service to people who sign-up with their name and email. A monthly newsletter will be emailed during the last week of each month and a breaking newsflash notification will be sent as significate events occur. The general public who sign-up and become an Acme Arts member will be able to select one or both communications options during the sign-up process. The sign-up will not require a password however there must be an option to remove their subscription. The removal process will send an email to the administrator requesting the removal of a member’s details from the database (the email feature will be simulated using a fake email process).

Your team must create a membership page to add new records to a membership database. Design a User Interface for this purpose which will capture the subscriber’s full name and email address. Ensure inputs are fully validated to filter out incorrect or erroneous information.

The full Acme Arts Website will need to be upgraded to be WCAG 2.1 compliant and have full responsive display across all major digital devices. Acme Art management would like the following features:

* Create a suitable User Interface for the member sign-up page so a member of the general public can enter their details and choose a communication service (ie. monthly Newsletter and/or Breaking News).
* The front-end web page sign-up form must prevent erroneous information (ie. Only characters in the name, Capitalise both names, Correct email format, etc).
* Members must have the option to opt-out by sending the administrator an appropriate message via the selection of a remove check box, button or similar.
* An administrator must be able to delete all details as requested by an Acme Arts member, this cannot be the ‘root’ account.
* Create a suitable User Interface for the administrator so they can enter an email address for removal. This interface should include an option to view all members. Consider a filter for one or both communications options.

Additional details for this website are listed below, the development must fully utilise all aspects of the Bootstrap v5, HTML, PHP, MySQL and PDO technologies.

* The website must be compatible with all contemporary web browsers.
* The website must be compatible with all major devices (PC, Mobile, Tablet).
* The Website must include all applicable aspects of WCAG 2.1
* The navigation must be consistent across all web pages and must have a similar theme (colours, fonts, etc).

# Question 16 Final Frontend Requirements

In this task the Team Leader (with assistance from all team members) will design the membership frontend web pages for the client’s approval. The design must include a GUI diagram with details for the component layout, colours, fonts, and website theme. Add a navigation hierarchy diagram which indicates the links between all the frontend web pages. Include the proposed links to the PHP files and MySQL database. You are expected to utilise contemporary website design and features in your design. Analyse the scenario and the Final Website Design Requirements; then complete the following Final Frontend Requirements template to answer this question.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Final Frontend Requirements | | | | |
| Team Leader | Poorav Sharma | | Date | 08/11/2022 |
| Membership Web Page Requirements | | | | |
| Requirements | | Description | | |
| Login and sign page | | A web page that askes the user to login or sign up to access the website | | |
| Client page | | A page that allows the client to subscribe or unsubscribe the newsletter service | | |
| Admin page | | Displays the client list which contains their email and name. | | |
| Navigation Hierarchy Diagram | | | | |
|  | | | | |
| Web Page WCAG Accessibility | | | | |
| Principle | | Component | | |
| 1. Perceivable | | Labels are clear so that the users can see it properly | | |
|  | | The font is understandable by the users | | |
|  | | The background and the labels have contrasting colours so that the users are able to easily read it. | | |
| 2. Operable | | The users can take their time surfing our website without worrying about any time limit. | | |
|  | | The navigation bar is present for them to always use making it easy for them to determine where they are and where they want to go. | | |
|  | |  | | |
| 3. Understandable | | All the instruction are clear and understandable. | | |
|  | | The website is designed in a way that helps users search and navigate it easily. | | |
|  | |  | | |
| 4. Robust | | The features on the website allow the client to request to unsubscribe from the breaking news or the monthly newsletters | | |
|  | | The admin can view all the clients and is able to update their subscriptions or delete their account. | | |
|  | |  | | |
| Add more rows as required | |  | | |

# Question 17 Final Backend Requirements

In this question the entire team is required to design the modifications for the database to include the membership table and fields. This includes the creation of a new table in the MySQL database with appropriate field names, and several test users for demonstration. Use the Final Backed Requirements template to provide suitable information that outlines the client’s new requirements, check with your lecturer if you have any issues or problems.

|  |  |  |
| --- | --- | --- |
| Final Backend Requirements | | |
| Database Design | | |
| Field Name | Datatype and Size | Description |
| id | Int | A number that cannot be repeated and allows us to track old clients and new clients. |
| firstName | Varchar | First name of the clients |
| familyName | varchar | Surname of the clients |
| email | varchar | Email of the client allows must contain an ‘@’ |
| breakingnews | Boolean | Acts as an indicator that allows us to know if they want to subscribe to daily news |
| monthly | Boolean | Acts as an indicator that allows us to know if they want to subscribe to daily monthly newsletter |
| deleted | Boolean | Acts as an indicator that allows the admin to deactivate the user’s account. Upon request from the user again it can be activated again in the future. |
| Add more rows as required |  |  |

# Question 18 Project Specifications

Use the previous GitHub repository from Sprint One and Two and add a new GitHub Project template to answer this question. It is the Team Leaders responsibility to maintain the GitHub project and associated files. Using a CITE approved Agile software development methodology, create a GitHub project plan for Sprint Three. List and describe all the tasks required to complete the development of the Website. Ensure all tasks have been allocated to a team member and there are suitable deadlines. The Team Leader must complete the following template as evidence of this question.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Project Specifications | | | | | |
| Project Name | Sprint three | | | | |
| Team Leader | Poorav Sharma | | | | |
| Version Number | 1 | | Date | 08/11/2022 | |
| Repository Name: | NEWSLetterWeb | | | | |
| URL | https://github.com/PooravSharma/NEWSLetterWeb | | | | |
| Initial Project Tasks | Screen Shots | | | | |
| Repository Details | Screen Shots | | | | |
| Performance Plan  The Team Leader must answer the following questions | | | | | |
| Team Members Name | | Zachary Purkiss | | | James Boyd |
| What are the technical skills of each team member? | | Highly proficient in programming different languages such as C#, Java, html, PHP. | | | Highly proficient in programming different languages such as C#, Java, html, PHP. |
| What resources will each team member require to complete their respective tasks? | | Will require a computer that has access to the internet. The computer also needs to be connected to the institute’s online server. | | | Will require a computer that has access to the internet. The computer also needs to be connected to the institute’s online server. |
| What criteria will be used to measure each members performance? | | I will measure their performance by see how well they follow the instructions I have given out. | | | I will measure their performance by see how well they follow the instructions I have given out. |
| How will conflict be managed within the team? | | Any conflicts in the team will be managed by having a team discussion where each member will be given a chance to explain their side of the story. The lecturer will be present during the discussion to ensure the conflict does not escalate. | | | Any conflicts in the team will be managed by having a team discussion where each member will be given a chance to explain their side of the story. The lecturer will be present during the discussion to ensure the conflict does not escalate. |
| What is the contingency plan if a team member fails to complete their allocated task? | | If a team member fails to complete their allocated task other team members will assist them with parts that they are having trouble with. | | | If a team member fails to complete their allocated task other team members will assist them with parts that they are having trouble with. |
| What is the method and frequency of communications between team members? | | The team members will be communicating verbally in class. They will be able to communicate with each other in class for 3 days a week and it there are further questions they are able to contact each other using communication platform such as discord or outlook. | | | The team members will be communicating verbally in class. They will be able to communicate with each other in class for 3 days a week and it there are further questions they are able to contact each other using communication platform such as discord or outlook. |

# Question 19 Design Approval and Sign Off

Once the Team Leader has completed questions 15, 16, 17 & 18 arrange for the document(s) to be reviewed by the Lecturer/Assessor for approval, sign off and feedback before moving onto the development and presentation.

* Question 15 Final Team Report
* Question 16 Final Frontend Requirements
* Question 17 Final Backend Requirements
* Question 18 Project Specifications

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Design Approval and Sign Off (Lecturer/Assessor use only) | | | | |
| Approver Name | Title | Signature | Date | Approved? |
| Stewart Godwin | Lecturer |  | 08/11/2022 | Approved |
|  |  |  |  |  |
| Lecturer Feedback | | | | |
|  | | | | |

# Question 20 Website Development and Testing

The Team Leader is required to monitor and manage the development of the Website and ensure all tasks are completed satisfactorily. The Team Leader must convey the Project information to the team members and assist were appropriate in the development. The Team Leader should update the GitHub Project to reflect each stage of the development task.

Ensure your website code is error free and functions correctly, then test the website on different browsers. During these checks ensure the web pages scale correctly and conform to responsive web design. Then, test the website on different digital devices and record any errors. Your Test Report must include three different platforms and three different browsers; provide appropriate evidence that your code functions as expected (references to screen captures).

Finally, ensure you website has been tested for all the features outlined by the Management of Acme Arts. Complete the following Test Report template to answer this question.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Report | | | | |
| Developer Name | Poorav Sharma | **Date** | 08/11/2022 | |
| Browser compatibility test | | | | |
| Test | Description | | | Pass / Fail |
| Creating new account | Create a new user account by filling in the first name, family name, email, and the subscription preferences. | | | Pass |
| Login in | Login into using an existing user account. | | | Pass |
| Request to unsubscribe | Request the admin to unsubscribe you from the daily news and the monthly newsletter | | | Pass |
| Request account deletion | Request the admin to delete your account. | | | Pass |
| Admin login | Login as the admin and view the list of clients | | | Pass |
| Change subscription of a client | Unsubscribe a client from the daily news and the monthly newsletters | | | Pass |
| Delete a client account | Delete a client account from the data base. | | | Pass |
| Device compatibility test | | | | |
| Test | Description | | | Pass / Fail |
| Chrome | Open the website in chrome browser | | | Pass |
| Microsoft Edge | Open the website in the Microsoft Edge browser | | | Pass |
| iPhone XR | Open the website in a mobile device. | | | Pass |
| WCAG compatibility test | | | | |
| Test | Description | | | Pass / Fail |
| Labels | Make sure all the labels on the website are clearly visible and its colour contrasts from the background | | | Pass |
| Navigation | Make sure the user can navigate through the website easily using the navigation bar | | | Pass |
| Spelling error | Make sure there are not spelling mistakes using the website | | | Pass |
| Name | The username and family name will always start with an upper case. | | | Pass |
| Admin access | Only the person with the admin email can go to the admin page. | | | Pass |
| Error trapping | There is error trapping in the sign-up page. The clint can only make an account by filling all the required information. | | |  |

## Question 21 Demonstration, Feedback and Evaluation

Check your code is fully commented with your Name, ID, and Date placed above the main code body of each file. Check all the documentation has been completed and then answer the Reflection Report questions; contact your Lecturer (Assessor) and arrange to demonstrate your working website, use the following Assessor Marking Guide to ensure all criteria is compliant.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Reflection Report  The Team Leader must answer the following questions | | | | |
| Team Leader | Poorav Sharma | | Date | 08/11/2022 |
| What aspects of the project went well? | | Creating the admin page with the client list and delete option went well when building it. | | |
| What aspects of the project didn’t go well? | | The error trapping for the sign-up page didn’t go well. We had to debug and fix it multiple time to make it work. | | |
| What improvements/suggestions would you recommend in the next sprint. | | I suggest you keep referring to the client requirement so that you don’t overthink or get offtrack when working on the website. | | |
| What team leadership skills did you implement during this sprint? | | The leadership skill that I implemented during this sprint are clear communication, flexible to change and I set clear task for the members to carryout. In the end of a meeting, I would make sure everyone knows what their task is and if they are clear on what they are going to do moving forward. I was open to hearing suggestion from team members and implementing it if it aligned with the client requirement. | | |
| How did you encourage ownership and responsibility of project tasks? | | I encouraged ownership and responsibility of project task by assigning tasking equally and not bombarding them with multiply task at one go. | | |
| How did you prioritise and allocate the various tasks (refer to GitHub Project)? | | I made a project plan that the team can refer to so that they are on track. I prioritised creating the new database table and the making the sign in page before we implemented the error trapping in it. | | |
| How did you support and assist the team? | | I supported and assisted the team by testing the pages they created and I pointing out any elements it is missing or it doesn’t require for the project. | | |

### Assessor Marking Guide

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Marking Guide and Observation Checklist | | Satisfactory | | Feedback |
| **Questions** | | YES NO | |  |
| Q15 | Final Team Report: All fields of the report are filled in. |  |  |  |
|  | Meeting notes (agenda, minutes, etc) |  |  |  |
| Q16 | Final Frontend Requirements: All fields of the template are filled in. |  |  |  |
|  | Membership Web Page Requirements contain information that is correct. |  |  |  |
|  | Navigation Hierarchy Diagram shows a detailed diagram of menu and links. |  |  |  |
|  | Web Page WCAG Accessibility contain information that is correct. |  |  |  |
| Q17 | Final Backend Requirements: All sections of the template are filled in. |  |  |  |
|  | Membership Database contains information that is correct. |  |  |  |
| Q18 | Project Specifications: All sections of the template are filled in. |  |  |  |
|  | The GitHub repository has been created |  |  |  |
|  | The GitHub project has been created and appropriately filled in |  |  |  |
|  | The Performance Plan questions have been answered |  |  |  |
| Q19 | Design Approval: The Design Approval process has been completed |  |  |  |
|  | Feedback has been provided |  |  |  |
|  | Observation of GitHub files has been verified |  |  |  |
| Q20 | Website Development and Testing: 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. Security and WCAG |  |  |  |
|  | Test Report has been completed and satisfies the criteria |  |  |  |
| Q21 | Demonstration: The website functions as required, and all web components work correctly. |  |  |  |
|  | The Team Leader has completed and checked all the Sprint Three documentation |  |  |  |
|  | The Team Leader has completed the Sprint Three reflective questions |  |  |  |
| **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 Sprint Three