|  |  |  |  |
| --- | --- | --- | --- |
| **Qualification details** | | | |
| **Training Package Code and Title** | ICT - Information and Communications Technology (Version 8.1) | | |
| **Qualification National Code and Title** | ICT50220 Diploma of information Technology (Release 2) | **State code** | BGJ4 |
| **Assessment Title** *(as per DAP)* | Assessment Task Two (Team Project) | | |
| **Unit National Code & Title** | ICTWEB513 Build dynamic websites | | |
| ICTWEB514 Create dynamic web pages | | |
| BSBXTW401 Lead and facilitate a team | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Due Date** | Week Nine | | **Date Received** | |  | |
| **Student Name** | Harrison Bartley | | | | | |
| **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 Nineteen |

|  |  |  |  |
| --- | --- | --- | --- |
| **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 7-9) |
| 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 ONE  Question 1 Initial Team Report  Question 2 Frontend Requirements  Question 3 Backend Requirements  Question 4 Project Specifications  Question 5 Development Update  Question 6 Website Development  Question 7 Demonstration, Feedback and Evaluation |

# Scenario

You have been employed as the Senior Web Programmer with CITE Managed Services, your first project is to use your knowledge and skills to lead a team in the creation of a multi-page client-server website for a local art gallery called Acme Arts. The manager of Acme Arts would like a web-based solution to access their SQL database collection of art works. The details and criteria are provided in the following pages.

The multi-page client-server website will utilise a suitable JavaScript frontend 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 7 | Sprint One | Question 1  Question 2  Question 3  Question 4 | Initial Team Report.  Frontend Requirements.  Backend Requirements.  Project Specifications. |
| Week 8 | Sprint One | Question 5  Question 6 | Review documentation and submit for Approval and Sign Off.  Commence Application Development |
| Week 9 | Sprint One | Question 6 cont…  Question 7 | Complete Application Development.  The Team Leader will present the Sprint One Website. The lecturer/assessor can/will ask questions. |
| Week 10 | Sprint Two |  |  |
| Week 11 | Sprint Two |  |  |
| Week 12 | Sprint Two |  |  |
| Week 13 | Sprint Three |  |  |
| Week 14 | Sprint Three |  |  |
| Week 15 | Sprint Three |  |  |

# Sprint One

As part of the quality assurance and compliance requirements the senior managers at CITE require an initial report before any development can be approved. 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. The role of Team Leader will rotate for each of the three sprints.

# Question 1 Initial Team Report

The following information must be completed by the Team Leader and approved before the commencement of any development work. The team must have a meeting and decide on a Team Name, then select the Team Leader for Sprint One. The Team Leader is directly responsible for all documentation and submission requirements for Sprint One. Complete the following Initial Team Report template to answer this question.

|  |  |
| --- | --- |
| Initial Team Report | |
| Team Details (Sprint One) | |
| Team Name: | SprintTeam |
| Team Leader: | Harrison Bartley |
| Team Member #1 | Yi Beh |
| Team Member #2 | Raymond Lai |
| Team Meeting Details | |
| Enter the location, date, time, minutes.  Meeting was done on 13/3/24.  Held at Murdoch TAFE Campus.  It was done over Microsoft Teams.  It was 30 minutes. | |

## Website Design Requirements

The manager at Acme Arts requires a single home web page (index.html/php) as the entry point into the website. This main page will have a menu interface to other web pages that allows access to the painting database. The staff at Acme Arts must be able to click various menu options which will display the appropriate details from the database. The manager of Acme Arts has provided a list of UX options they require and how the information is to be displayed. The staff at Acme Arts must be able to perform the following tasks via the web page interface,

* Select all the paintings and display the information in a table as Painting Title, Finished, Artists Name, Style and thumbnail Image.
* Filter all the paintings by Style using a dropdown list (or similar), and display the information in a table as Painting Title, Finished, Artists Name and thumbnail Image
* Filter all the paintings by Artist using a dropdown list (or similar), and display the information in a table as Painting Title, Finished, Style and thumbnail Image
* Search for a specific painting by Painting Title; the user will input the painting name into an input text box. The resulting display will include the Painting Title, Finished, Painting Image (full size), Artist Name and Style. The system must provide suitable error messaging.
* Any painting in the database table can be Updated or Deleted,
* Finally new paintings can be Inserted. Ensure that these actions do not create any null records. The system must provide suitable error messaging.

Additional details for this website are listed below, the development must fully utilise all aspects of the JavaScript frontend framework (or approved framework), HTML, PHP, MySQL and PDO technologies.

* The website must be compatible with all contemporary web browsers.
* The navigation must be consistent across all web pages and must have a similar theme (colours, fonts, etc).

# Question 2 Frontend Requirements

In this task the Team Leader (with assistance from all team members) will design the 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 Website Design Requirements; then complete the following Frontend Requirements template to answer this question.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Frontend Requirements | | | | |
| Team Leader | Harrison Bartley | | Date | 13/3/24 |
| Web Page Requirements | | | | |
| Requirements | | Description | | |
| Single home page | | Entry point into website. | | |
| Menu interface | | Navigation to other web pages. | | |
| Display painting details | | Ability to view painting database. | | |
| User tasks | | Perform various actions via web interface. | | |
| Utilization of technologies | | JavaScript, HTML, PHP, MySQL, PDO. | | |
| Compatibility | | With contemporary web browsers. | | |
| Consistent navigation | | Across all pages with similar theme. | | |
| Web Page Languages and Technologies | | | | |
| Language/Technology | | Description | | |
| HTML | | Structure and content of web pages. | | |
| PHP | | Server-side scripting for dynamic content. | | |
| MySQL | | Database management system for storing painting data. | | |
| PDO | | PHP Data Objects for database connectivity. | | |
| JavaScript | | Frontend framework for interactive functionality. | | |
| Contemporary web browsers | | Compatibility with modern browsers. | | |
| Prototype of User Interface | | | | |
|  | | | | |
| Navigation Hierarchy Diagram | | | | |
|  | | | | |

# Question 3 Backend Requirements

In this question the entire team is required to design the database table(s) and fields to hold Acme Art’s collection of painting data. Create an UML diagram based on the following information, ensure your diagram shows the data type, field size and the primary and foreign keys in each table. Use appropriate names and data types for all aspects of the database.

## Painting Example

|  |  |  |
| --- | --- | --- |
| A bridge over a river  Description automatically generated with low confidence | Painting Title  Finished  Paint Media  Artist Name  Style  Painting | Waterlilies and Japanese Bridge  1899  Oil (i.e. oil on canvas)  Claude Monet  Impressionism  Image (MUST be Blob data type) |

Use the Backed Requirements template to provide suitable information that outlines the client’s requirements, and then insert your SQL scripts for the database creation and population. Painting data can be obtained from the table below while the images are located on Blackboard. Check with your lecturer if you have any issues or problems.

|  |  |  |  |
| --- | --- | --- | --- |
| Backend Requirements | | | |
| Team Leader | Harrison Bartley | Date | 13/3/24 |
| UML Diagram | | | |
|  | | | |
| SQL Script | | | |
|  | | | |
| SQL Security Permissions | | | |
| * Needs a username and password to connect. * Can log on from the same network. * Anyone that can access the website can insert, update, and delete. * Data backup recovery is in risk. * Website can’t withstand DoS attacks | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Project Specifications | | | | | |
| Project Name | SprintArtProject | | | | |
| Team Leader | Harrison Bartley | | | | |
| Version Number | 3.12.0 | | Date | 13/3/24 | |
| Repository Name: | SprintArtProject | | | | |
| URL | https://github.com/harrisonhere/SprintArtProject | | | | |
| Sprint One Project Tasks  (project structure) | Screen Shots  A screenshot of a computer  Description automatically generated | | | | |
| Repository Details  (file structure) | Screen Shots  A screenshot of a computer  Description automatically generated | | | | |
| Performance Plan  The Team Leader must answer the following questions | | | | | |
| Team Members Name | | Yi Beh | | | Raymond Lai |
| What are the technical skills of each team member? | | Good at programming  Knowledge and skill in web development | | | Good at programming.  Knowledge about SQL |
| What resources will each team member require to complete their respective tasks? | | Laptop  Internet  Visual studio code  Google | | | PC  Internet  Visual studio code  Google |
| What criteria will be used to measure each members performance? | | What the website looks like, how it acts and behaves, and if the website is user friendly. Communicated his problems and updates with me. Whether if he was a team player or not. | | | How the backend works and functions, if each menu option works correctly, if feedback is given when an error occurs in the form of an error popup. Communicated his problems and updates with me. Whether if he was a team player or not. |
| How will conflict be managed within the team? | | Conflict problems will be run through me, and I will sort any problems out. If conflict does arise, I will be quick to manage it and find a solution that helps both team members and solves the issue/conflict. I will either sort this out in person (weekdays), or over teams (weekends). | | | Conflict problems will be run through me, and I will sort any problems out. If conflict does arise, I will be quick to manage it and find a solution that helps both team members and solves the issue/conflict. I will either sort this out in person (weekdays), or over teams (weekends). |
| What is the contingency plan if a team member fails to complete their allocated task? | | If he fails the web development task, I will ask Raymond to help him, along with myself to complete the task. I will give feedback and constant support to put him back on track. | | | If Raymond fails, I will help and support him to get back on track and work on it together. If it becomes too much for him, I will ask Yi to assist as well, so we are able to help Raymond complete the task. |
| What is the method and frequency of communications between team members? | | Microsoft Teams | | | Microsoft Teams  Discord |

## Painting Data

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Title | Finished | Media | Artist | Style |
| Bal du moulin de la Galette | 1876 | oil | August Renoir | Impressionism |
| Doni Tondo (Doni Madonna) | 1507 | oil | Michelangelo | Mannerism |
| Vase with Twelve Sunflowers | 1888 | oil | Vincent Van Gogh | Still-life |
| Mona Lisa | 1503 | oil | Leonardo da Vinci | Portrait |
| The Potato Eaters | 1885 | oil | Vincent Van Gogh | Realism |
| Sunrise | 1972 | oil | Claude Monet | Impressionism |
| Weaver | 1884 | oil | Vincent Van Gogh | Realism |
| Nature morte au compotier | 1914 | oil | Pablo Picasso | Cubism |
| Houses of Parliament | 1899 | oil | Claude Monet | Impressionism |
| Cafe Terrace at Night | 1888 | oil | Vincent Van Gogh | Impressionism |
| At the Lapin Agile | 1905 | oil | Pablo Picasso | Impressionism |
| The Persistence of Memory | 1931 | oil | Salvador Dali | Surrealism |
| The Hallucinogenic Toreador | 1970 | oil | Salvador Dali | Surrealism |
| Jaz de Bouffan | 1877 | oil | Paul Cezanne | Impressionism |
| Vitruvian Man | 1490 | pen-ink | Leonardo da Vinci | Realism |
| The Kingfisher | 1886 | pen-ink | Vincent Van Gogh | Realism |

# Question 4 Project Specifications

Create a suitable GitHub repository and then use the 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. 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.

# Question 5 Development Update

Once the Team Leader has completed questions 1, 2, 3 & 4 arrange for the document(s) to be reviewed by the Lecturer/Assessor for approval and feedback before moving onto the development and presentation.

* Question 1 Initial Team Report
* Question 2 Frontend Requirements
* Question 3 Backend Requirements
* Question 4 Project Specifications

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Development Update (Lecturer/Assessor use only) | | | | |
| Approver Name | Job Title | Signature | Date | Approved? |
|  |  |  |  |  |
|  |  |  |  |  |
| Lecturer Feedback | | | | |
|  | | | | |

# Question 6 Website Development

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. Before work begins the team should create and populate a database for the Acme Arts painting information. It is the Team Leaders task to ensure the data is accurate.

The Team Leader is responsible for the development of the software components that create both the frontend and backend web pages based on the project design specifications.

# Question 7 Demonstration, Feedback and Evaluation

Ensure all the code is fully commented with the Team Name, Developers Name, and Date placed above the main code body in each file. Check all the documentation has been completed and then answer the Reflection Report questions. Contact your Lecturer (Assessor) and arrange for a time to demonstrate your working Website and associated documentation, use the Checklist to ensure all criteria is compliant.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Reflection Report  The Team Leader must answer the following questions | | | | |
|  | | | | |
| Team Leader | Harrison Bartley | | Date | 22/3/24 |
| What aspects of the project went well? | | We had effective communication, and I was always sure on what we were up to. My team members gave constant updates and feedback, and I was always there to help and assist when need be. Allocating the tasks and playing off my team’s skills helped us figure out our strengths and weaknesses in the short time we were given to complete this project. We also had a good team moral even when things weren’t working correctly. | | |
| What aspects of the project didn’t go well? | | One of our biggest issues as a team was having technical issues with the database and getting it up and running. As a team captain, I underestimated the time it would take to do this, and I take responsibility for the delay it had on our team’s project. | | |
| What improvements/suggestions would you recommend in the next sprint. | | Something I would recommend is conducting a more thorough process into allocating tasks and dictating more correct times and deadlines for each task. I would also address any loose code, and unneeded lines. | | |
| What team leadership skills did you implement during this sprint? | | I made sure to set clear goals to my team, and what I wanted from them. I addressed any conflicts and concerns my team had while keeping a positive moral throughout the process. I also gave good feedback and celebrated my team’s success. | | |
| How did you encourage ownership and responsibility of project tasks? | | I encouraged ownership by having multiple meetings, constant check ups on my group members, and helping them where they needed. I made sure to play to their strengths, and figured out where they were best seated. | | |
| How did you prioritise and allocate the various tasks (refer to GitHub Project)? | | To prioritize the various tasks, I broke down how long each task would task, and what needed to be done the quickest. I put into consideration my team’s availability and skill when deciding which task needed to be completed and when. | | |
| How did you support and assist the team? | | I assisted the team by providing resources and guidance needed for the project completion. I encouraged a supportive and inclusive team environment. I was always there to address any issues or concerns that my team had for me. | | |

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

### The End of Sprint One