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

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| --- | --- | --- | --- | --- | --- | --- |
| **Date Due** | Week Sixteen | | **Date Received** | | 15/11/2022 | |
| **Student Name** | Kyle Watson | | | | | |
| **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** |  |

|  |  |
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| **Assessment Instructions** | |
| **TO THE ASSESSOR** |  |
| Type of Assessment | Team Project |
| Duration of the assessment | 3 class sessions (Weeks 13-16) |
| 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. |

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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. |
| 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 TWO  Question 8 Interim Team Report  Question 9 Amended Frontend Requirements  Question 10 Amended Backend Requirements  Question 11 Project Specifications  Question 12 Design Approval and Sign Off  Question 13 Amended Website Development  Question 14 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 Sprint Two development. The manager of Acme Arts has agreed to sign off the Sprint One 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 | Question 8  Question 9  Question 10  Question 11 | Interim Team Report.  Amended Frontend Requirements.  Amended Backend Requirements.  Project Specifications. |
| Week 15 | Sprint Two | Question 12  Question 13 | Review documentation and submit for Approval and Sign Off.  Commence Application Development for updated criteria. |
| Week 16 | Sprint Two | Question 13 cont…  Question 14 | Complete Application Development for updated criteria.  The Team Leader will present the Sprint Two Website. The lecturer/assessor can/will ask questions. |
| Week 17 | Sprint Three |  |  |
| Week 18 | Sprint Three |  |  |
| Week 19 | Sprint Three |  |  |

# Sprint Two

As part of the quality assurance and compliance requirements the senior managers at CITE require an interim report before any development can be approved for Sprint Two. 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 8 Interim Team Report

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

|  |  |
| --- | --- |
| Interim Team Report | |
| Team Details (Sprint Two) | |
| Team Name: | Rocky Rockets |
| Team Leader: | Kyle Watson |
| Team Member #1 | Kristiin Tribbeck |
| Team Member #2 | Kirsten Kurniadi |
| Team Meeting Details | |
| Enter the location, date, time, minutes.  1/11/2022  1:00pm  Distribution of work, assessment of team strengths and weaknesses, assessment timeline. | |

## Amendment to Website Design Requirements

The manager at Acme Arts requires the following amendments to the website. The main page will have an additional menu interface that allows access to the database data for a new table which holds data for the artists. 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,

* Select all the artists and display the information in a table as Artist Name, LifeSpan and thumbnail Image.
* Select all artists by media or style and display the information in a table as Artist Name, LifeSpan, Style and thumbnail image.
* Select a specific artist by name; the user will input the artist’s name into an input text box. The resulting display will include the Artist Name, LifeSpan, Style and a large portrait Image. The system must provide suitable error messaging.
* All the data in the tables can be Updated and Deleted, finally new data can be Inserted. Ensure that these actions do not create any orphans. The system must provide suitable error messaging.

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 navigation must be consistent across all web pages and must have a similar theme (colours, fonts, etc).

# Question 9 Amended Frontend Requirements

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Amended Frontend Requirements | | | | |
| Team Leader | Kyle Watson | | Date | 1/11/2022 |
| Artist Web Page Requirements | | | | |
| Requirements | | Description | | |
| Select all artist and display in a table | | Displays information as artist name, lifespan, style, and thumbnail | | |
| Select all artists by media | | Can select the media from a dropdown menu and the related artists will be displayed. | | |
| Select all artists by style | | Can select the style from a dropdown menu and the related artists will be displayed. | | |
| Select artist by name using input text box | | Page will display all artists and user can filter the results via a text box | | |
| CRUD functionality | | Data can be updated, deleted, and inserted without creating orphans | | |
| Web Page Languages and Technologies | | | | |
| Language/Technology | | Description | | |
| Bootstrap v5 | | A framework for creating responsive websites. | | |
| HTML | | Hypertext markup language used to display documents in a web browser | | |
| PHP | | PHP is a general-purpose scripting language geared toward web development. | | |
| MySQL | | MySQL is an open-source relational database management system. | | |
| PDO | | An interface for accessing databases in PHP without tying code to a specific database. | | |
| CSS | | Used for describing the presentation of a document written in a markup language such as HTML or XML. | | |
| Prototype of User Interface | | | | |
|  | | | | |
| Navigation Hierarchy Diagram | | | | |
|  | | | | |

# Question 10 Amended Backend Requirements

In this question the entire team is required to re-design the extra database table(s) and fields to hold Acme Art’s collection of paintings and artist data. Create a new 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.

## Database Example

|  |  |  |
| --- | --- | --- |
| A bridge over a river  Description automatically generated with low confidence | Painting Title  Year it was Finished  Paint Media  Artist Name  Style | Waterlilies and Japanese Bridge  1899  Oil (i.e. oil on canvas)  Claude Monet  Impressionism |
|  | Artist Name  LifeSpan | Rembrandt  1606-1669 |

Use the Amended Backed Requirements template to provide suitable information that outlines the client’s new requirements, and then insert your SQL scripts for the database creation and population. Artist 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.

|  |
| --- |
| Amended Backend Requirements |
| UML Diagram |
|  |
| SQL Script |
| DROP TABLE IF EXISTS `Artist\_Data`;  CREATE TABLE `Artist\_Data` (  `Artist` varchar(50) NOT NULL,  `Lifespan` varchar(10) NOT NULL,  `Thumbnail` mediumblob DEFAULT NULL,  `Portrait` mediumblob DEFAULT NULL,  PRIMARY KEY (`Artist`)  ) ENGINE=InnoDB DEFAULT CHARSET=utf8;  LOCK TABLES `Artist\_Data` WRITE;  INSERT INTO `Artist\_Data` VALUES ();  UNLOCK TABLES;  DROP TABLE IF EXISTS `Painting\_Data`;  CREATE TABLE `Painting\_Data` (  `Id` int(11) NOT NULL AUTO\_INCREMENT,  `Title` varchar(250) NOT NULL,  `Painting` mediumblob NOT NULL,  `Year\_Painted` int(5) DEFAULT NULL,  `Media` varchar(50) NOT NULL,  `Artist` varchar(50) NOT NULL,  `Style` varchar(50) NOT NULL,  PRIMARY KEY (`Id`),  KEY `Painting\_FK` (`Artist`),  CONSTRAINT `Painting\_FK` FOREIGN KEY (`Artist`) REFERENCES `Artist\_Data` (`Artist`) ON DELETE CASCADE ON UPDATE CASCADE  ) ENGINE=InnoDB AUTO\_INCREMENT=81 DEFAULT CHARSET=utf8;  LOCK TABLES `Painting\_Data` WRITE;  INSERT INTO `Painting\_Data` VALUES ();  UNLOCK TABLES; |
| SQL Security Permissions |
|  |

## Artist Data

|  |  |
| --- | --- |
| Artist | LifeSpan |
| August Renoir | 1841–1919 |
| Michelangelo | 1475–1564 |
| Vincent Van Gogh | 1853–1890 |
| Claude Monet | 1840-1926 |
| Rembrandt | 1606–1669 |
| Pablo Picasso | 1881–1973 |
| Jan Vermeer | 1632–1675 |
| Salvador Dali | 1904-1989 |
| Paul Cezanne | 1839–1906 |
| Leonardo da Vinci | 1452–1519 |
| Raphael | 1483–1520 |

# Question 11 Project Specifications

Use the previous GitHub repository from Sprint One 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 Two. List and describe all the tasks required to complete the development of the updated 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 | ACME Art Webpage | | | | |
| Team Leader | Kyle Watson | | | | |
| Version Number | 1.0 | | Date | 1/11/2022 | |
| Repository Name: | Acme Art Webpage | | | | |
| URL | https://github.com/Kwatson-1/Agile-ACME-Sprint-2 | | | | |
| Initial Project Tasks |  | | | | |
| Repository Details |  | | | | |
| Performance Plan  The Team Leader must answer the following questions | | | | | |
| Team Members Name | | Kristiin Tribbeck | | | Kirsten Kurniadi |
| What are the technical skills of each team member? | | Eye for detail, skilled in front-end development, and overall website polish. | | | Highly skilled in MySql syntax, backend programming, and php scripting. |
| What resources will each team member require to complete their respective tasks? | | An html/php text editor and access to the Turnkey MySQL database | | | Access to the Turnkey MySQL database |
| What criteria will be used to measure each members performance? | | Performance will be measured based on the time required to complete assigned tasks and the overall quality of tasks provided. | | | |
| How will conflict be managed within the team? | | Conflict will be managed internally by the team leader. Where conflict cannot be resolved, compromise will be attempted instead. | | | |
| 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 first the reason will be determined. If due to time constraints, or difficulty completing the task then the task may be offered to other team members who feel like they can overcome the challenge. Alternative solutions may be considered if the problem persists. | | | |
| What is the method and frequency of communications between team members? | | The method of communication will be via teams and in-class contact. Frequency of communication will be on an as-need basis. | | | |

# Question 12 Design Approval and Sign Off

Once the Team Leader has completed questions 8, 9, 10 & 11 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 8 Interim Team Report
* Question 9 Amended Frontend Requirements
* Question 10 Amended Backend Requirements
* Question 11 Project Specifications

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Design Approval and Sign Off (Lecturer/Assessor use only) | | | | |
| Approver Name | Title | Signature | Date | Approved? |
| Stewart Godwin | Lecturer |  | 1/11/2022 | Yes |
|  |  |  |  |  |
| Lecturer Feedback | | | | |
|  | | | | |

# Question 13 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 create and populate the additional table(s) in the database for the Acme Arts artist information.

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 14 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, use the Assessor Marking Guide to ensure all criteria is compliant.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Reflection Report  The Team Leader must answer the following questions | | | | |
| Team Leader | Kyle Watson | | Date | 14/11/2022 |
| What aspects of the project went well? | | Front end development progressed rapidly due to already established templates. | | |
| What aspects of the project didn’t go well? | | Certain aspect of backend development proved difficult for certain members to complete and had to be reallocated. | | |
| What improvements/suggestions would you recommend in the next sprint. | | Encourage better communication of issues from members struggling with assigned tasks. | | |
| What team leadership skills did you implement during this sprint? | | Being motivational: encouraging team members when they were becoming frustrated with difficulty completing tasks.  Goal setting: breaking down bigger tasks into smaller more manageable ones for completion by the assigned team member or reallocated to another one.  Express expectations: ensuring that the expectation of team members was communicated confidently and clearly, and the time constraints and deadlines were clearly understood. | | |
| How did you encourage ownership and responsibility of project tasks? | | Team members were encouraged to communicate where they felt their strengths would be best applied and if they felt confident enough to complete allocated tasks. This was the ensure that team members felt more comfortable in their allocated role and responsibilities and more likely to assume ownership of the related tasks. | | |
| How did you prioritise and allocate the various tasks (refer to GitHub Project)? | | Tasks were prioritised by their complexity and estimated time to complete to meet client requirements. | | |
| How did you support and assist the team? | | Ensured tasks were completed in a timely manner and to an appropriate standard. Providing solutions to issues preventing developmental stages from progressing. | | |

### Assessor Marking Guide

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Marking Guide and Observation Checklist | | Satisfactory | | Feedback |
| **Questions** | | YES NO | |  |
| Q8 | Interim Team Report: All fields of the report are filled in. |  |  |  |
|  | Meeting notes (agenda, minutes, etc) |  |  |  |
| Q9 | Amended Frontend Requirements: All fields of the template are filled in. |  |  |  |
|  | Web Page Requirements contain information that is correct. |  |  |  |
|  | Web Page Languages and Technologies contain information that is correct. |  |  |  |
|  | Prototype of User Interface shows a detailed diagram of the GUI with explanation notes. |  |  |  |
|  | Navigation Hierarchy Diagram shows a detailed diagram of menu and links. |  |  |  |
| Q10 | Amended Backend Requirements: All sections of the template are filled in. |  |  |  |
|  | Entity Relationship Diagram is correct with primary and foreign key links. |  |  |  |
|  | Table and field names are correct and satisfy SQL standards. |  |  |  |
|  | Create table SQL scripts are correct. |  |  |  |
|  | Insert SQL scripts are correct. |  |  |  |
| Q11 | 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 |  |  |  |
| Q12 | Design Approval: The Design Approval process has been completed |  |  |  |
|  | Feedback has been provided |  |  |  |
|  | Observation of SQL files has been verified |  |  |  |
| Q13 | Amended 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. |  |  |  |
| Q14 | Demonstration: The website functions as required, and all web components work correctly. |  |  |  |
|  | The Team Leader has completed and checked all the Sprint Two documentation |  |  |  |
|  | The Team Leader has completed the Sprint Two reflective questions |  |  |  |
| **General Feedback:** | | | | |
|  | **Assessment Decision**  Satisfactory  Not Yet Satisfactory | | | |

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