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| **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 | | |

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| **Date Due** | Week Twelve | | **Date Received** | |  | |
| **Student Name** | Yi Zhe Beh | | | | | |
| **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 |

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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** | **Yi Zhe Beh** | **Date** |  |

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| **Assessment Instructions** | |
| **TO THE ASSESSOR** |  |
| Type of Assessment | Team Project |
| Duration of the assessment | 3 class sessions (Weeks 10-12) |
| 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 Development Update  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 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.

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| MILESTONE | | TASK | DESCRIPTION |
| Week 7 | Sprint One |  |  |
| Week 8 | Sprint One |  |  |
| Week 9 | Sprint One |  |  |
| Week 10 | Sprint Two | Question 8  Question 9  Question 10  Question 11 | Interim Team Report.  Amended Frontend Requirements.  Amended Backend Requirements.  Project Specifications. |
| Week 11 | Sprint Two | Question 12  Question 13 | Review documentation and submit for Approval and feedback.  Commence Application Development for updated criteria. |
| Week 12 | 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 13 | Sprint Three |  |  |
| Week 14 | Sprint Three |  |  |
| Week 15 | 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: | **HTML Heroes** |
| Team Leader: | **Yi Zhe Beh** |
| Team Member #1 | **Harrison Bartley** |
| Team Member #2 | **Raymond Lai** |
| Team Meeting Details | |
| Enter the location, date, time, minutes.  **South Metropolitan TAFE (Murdoch Campus) T101**  **26/03/2024**  **2.00 p.m.** | |

## 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 perform the following tasks via the web page interface,

* Select all the artists and display the information in a table as Artist Name, LifeSpan, Nationality and thumbnail Image.
* Filter all artists by Period using a dropdown list (or similar) and display the information in a table as Artist Name, LifeSpan, Nationality and thumbnail image. (century the artist lived, 19th, 20th, etc)
* Filter all artists by Nationality using a dropdown list (or similar) and display the information in a table as Artist Name, LifeSpan, Nationality and thumbnail image.
* Search for 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, Nationality and a large portrait Image. The system must provide suitable error messaging.
* Any artist data in the database table can be Updated and Deleted,
* Finally a new artist 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 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 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 | **Yi Zhe Beh** | | Date | **26/03/2024** |
| Artist Web Page Requirements | | | | |
| Requirements | | Description | | |
| **Dropdown list** | | **Filter all the artists by period** | | |
| **Dropdown list** | | **Filter all the artists by nationality** | | |
| **Table** | | **Display all the information as Artist Name, Lifespan, Nationality, and thumbnail image.** | | |
| **Input text box** | | **Search for a specific artist by name.** | | |
| **Database table** | | **Can be updated and deleted.** | | |
| **Button** | | **Add new artist into the table.** | | |
| 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** | | |
| 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. The team will need to research and collect the data for the Nationality field.

## Database Example

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

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 |
| |  |  | | --- | --- | | Painting  -ID: int (PK)  -PaintingTitle: text  -Finished: int  -PaintMedia: text  -ArtistName: text (FK)  -Style: text  -Painting: blob | Artist  -ID: int (PK)  -ArtistName: text (FK)  -Lifespan: int  -Nationality: text  -Image: blob | |
| SQL Script |
|  |
| SQL Security Permissions |
| * **Needs a username and password to connect.** * **Can log on from the same network.** * **Anyone can access the website to insert, update, and delete.** * **Data backup recovery is in risk.** * **Website can’t withstand DoS attacks.** |

## Artist Data

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

# 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 | **AT2 Sprint Two** | | | | |
| Team Leader | **Yi Zhe Beh** | | | | |
| Version Number | **1.0** | | Date | **27/03/2024** | |
| Repository Name: | **AT2-Sprint-Two** | | | | |
| URL | **https://github.com/YiZheBeh/AT2-Sprint-Two.git** | | | | |
| Sprint Two Project Tasks  (project structure) | Screen Shots | | | | |
| Repository Details  (file structure) | Screen Shots | | | | |
| Performance Plan  The Team Leader must answer the following questions | | | | | |
| Team Members Name | | **Harrison Bartley** | | | **Raymond Lai** |
| What are the technical skills of each team member? | | **-SQL Script**  **-Database** | | | **-Web development**  **-Languages or technologies for web development** |
| What resources will each team member require to complete their respective tasks? | | **-Internet**  **- PC**  **-Online learning tools** | | | **-Internet**  **-PC**  **-Online learning tools** |
| What criteria will be used to measure each members performance? | | **-Either is a team player or not**  **-Meet the requirements of designing the database.** | | | **-Either is a team player or not**  **-Meet the requirements of how the website supposed to look like.** |
| How will conflict be managed within the team? | | **-If conflict arise, meeting will be held, and we will discuss the issues together.** | | | **-If conflict arise, meeting will be held, and we will discuss the issues together.** |
| What is the contingency plan if a team member fails to complete their allocated task? | | **If Harrison fails to complete the tasks, me and Raymond will try our best to fill up tasks assigned to him.** | | | **If Raymond fails to complete the tasks, me and Harrison will try our best to fill up tasks assigned to him.** |
| What is the method and frequency of communications between team members? | | **Method:**  **Through Microsoft teams and face to face communication.**  **Frequency:**  **Very often** | | | **Method:**  **Through Microsoft teams and face to face communication.**  **Frequency:**  **Very often** |

# Question 12 Development Update

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 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** | **Stewart Godwin** | **/04/2024** |  |
|  |  |  |  |  |
| 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. 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 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 | **Yi Zhe Beh** | | Date | **/04/2024** |
| What aspects of the project went well? | |  | | |
| What aspects of the project didn’t go well? | |  | | |
| What improvements/suggestions would you recommend in the next sprint. | |  | | |
| What team leadership skills did you implement during this sprint? | |  | | |
| How did you encourage ownership and responsibility of project tasks? | |  | | |
| How did you prioritise and allocate the various tasks (refer to GitHub Project)? | |  | | |
| How did you support and assist the team? | | **I support and assist the team by explaining the tasks assigned to them and solve the problems that arise.** | | |

### The End of Sprint Two