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| **Qualification** | | **Module Number and Title** | |
| Higher Diploma in computing and software engineering | | Web Application Development | |
| **Student Name & No.** | | **Assessor** | |
|  | | Ms. Lanka Leelarathna | |
| **Hand out date** | | | **Submission Date** |
|  | | |  |
| **Assessment type**  Writ1 | **Duration/Length of**  **Assessment Type**  **3000 words** | | **Weighting of Assessment**  100% |

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| **Learner declaration** | |
| I certify that the work submitted for this assignment is my own and research sources are fully acknowledged. | |
| |  |  |  |  | | --- | --- | --- | --- | | **Marks Awarded** | | | | | First assessor | |  | | | IV marks | |  | | | Agreed grade | |  | | | Signature of the assessor |  | Date |  | |

**Feedback Form**

**International College of Business & Technology**

**Module:**

**Student:**

**Assessor:**

**Assignment:**

**Strong features of your work:**

**Areas for improvement:**

**Marks Awarded:**

**Course work**

**Learning outcomes covered**

* Design web applications for organizational needs

• Develop server-side, client-side programs and integrates.

• Develop web applications with databases.

• Test Web applications

**Scenario and the Task**

Read the following scenario to develop a dynamic web application system for a given organization and write a report covering the given tasks. The web system documentation also needs to be included according to the given content within the report.

Note that the students would be assessed for the originality effectiveness and quality of the application development.

# Introduction

# Using the Internet to search for businesses and products is much easier and faster than at any time in the past. A professionally designed website that is an extension of your brand, your site becomes part of the experience of doing business with you.

# Scenario

# The Gallery Café is a popular restaurant located in Colombo and they have decided to enhance customer experience with the use of technological advancements. The management of the restaurant has decided to launch an interactive web-based application. By designing and developing this database-driven website, “The Gallery Café” can enhance its business operations, improve customer satisfaction, streamline reservation and booking processes, place cuisine orders, and communicate with customers effectively.

As a newly appointed web development officer, you have been asked to design and develop a database-driven website for the “The Gallery Café**”** restaurant.

The website should fulfill the following requirements:

* The website should contain an attractive and user-friendly interface by displaying the Types of Meals, Menus, Special food and beverages, table reservations, information about the restaurant, special events, and promotions.
* The website should provide details regarding available table capacities, parking availability, and special promotions by providing high-quality images.
* There should be a search function for searching the food based on the cousin types (Sri Lankan, Chinese, Italian, etc..)
* Online table reservation facility should be included on the website (**Use proper error handling methods)**
* There should be a facility for the customer to pre-order the cousins before they arrive at the restaurant.
* The website should provide a user registration system that allows customers to create accounts for table reservations and pre-ordering food.
* There should be 3 user types as Admin, operational staff, and customers. The admin should be able to manage the website, create user logins, add food and beverage details, update information, and access any function of the website. The operational staff should be able to view reservation details, (including confirming, modifying, or canceling bookings) and process pre-orders (including confirming, modifying, or canceling orders).

Note: You can add more functionality with clearly mentioned assumptions

1. Plan and design web application for given scenario (Marks 40)
   1. Analyzing similar web systems will be very important to plan new site Find web sites that share a similar audience and compare them considering design factors and other relevant features. (Marks 20)
   2. Provide proper UI design (mockup diagrams) and site map including all the design decision justifications. (Marks 20)
2. Implement database driven web application based on given design (Marks 40)
   1. Implementation of attractive user-friendly interfaces using appropriate technologies. (Marks 20)
   2. Implementation of back end functionalities (Marks 20).
3. Web site testing is very important to make sure, whether the application is an error free. Test your web site by using appropriate techniques. Include (testing overview, test plan, test cases, feedback evaluation) (Marks 20)

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| **This submission will be assessed as follows** | **Depth of the task** |

**Assessment Criteria**

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| **This submission will be assessed as follows** | **Total marks Allocated** | **Marks obtained by the student for the answer provided** |
| **Task 1 Plan and design** | 40 |  |
| **A Similar system comparison** | **20** |  |
| **Poor**   * Poor web site comparison or none. * No format or criteria | 0 – 4 |  |
| **Satisfactory**   * Compare minimum two web sites without proper format. * Criteria are given but not relevant | 5 – 10 |  |
| **Good**   * Compare two or more similar web site use of proper criteria with clear format * Indicate the web comparison by considering all the relevant design aspect of the given scenario. | 11 – 15 |  |
| **Excellent**   * Excellent level of detailed web site comparison with valid arguments and criteria’s. * Critical evaluation of web site features. | 16- 20 |  |
| **B User interface design** | **20** |  |
| **Poor**   * No evidence attached * Poor or incomplete wireframe diagrams. | 0-4 |  |
| **Satisfactory**   * Basic user interface design | 5-10 |  |
| **Good**   * Proper use of wire-framing diagrams by covering most of system aspects * Suggest appropriate colors and themes within the diagrams. | 11-15 |  |
| **Excellent**   * Very clear and innovative design | 16-20 |  |
| **Task 2 System implementation and Demo** | **40** |  |
| **A Implementation of interfaces** | **20** |  |
| **Poor**   * Poor use of an elements and attributes, tags * Cluttered pages poor use of colors and inappropriate use of images and fonts * No or very poor navigation between pages * No or poor consistency throughout web site. * No or poor use of Selectors properties and values. * No evidence of using different technologies * No or poor concepts understanding * No evidence of using different technologies | **0-4** |  |
| **Satisfactory**   * + - Satisfactory use of an elements and attributes, tags     - Satisfactory use of colors themes and layouts and images and fonts     - Navigation between pages with few broken links     - Satisfactory use consistency throughout web site.     - Few selectors are used     - different technologies have been used but not appropriate     - Satisfactory level of concepts understanding | **5-10** |  |
| **Good**   * Good attractive web design * Appropriate use of colors and layouts. * Appropriate use of themes and images and fonts * Good easy navigation between pages quick information findings * Proper consistency throughout web site. * Appropriate use of styling techniques and other technologies * Good level of concepts understanding. | **11-15** |  |
| **Excellent**   * Eye catching design with innovative ideas * Strategic use of white spaces * Well balanced appropriate colours * Well planned information architecture. * Excellent use of technologies to make web site fast loading * Excellent knowledge of underlying concepts. | **16-20** |  |
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| **B Implementation of back end functionalities** | **20** |  |
| **Poor**   * No proper standard coding (No proper naming conventions No commented out code. * Poor code reusability or non * Poor implementation of core (implementation of one function or none ) * System with syntax and logical errors * Poor understanding of underling concepts * Poor understanding of how the system works * Demonstration is not done * No database handling | 0 -4 |  |
| **Satisfactory**   * Error free functional web site. * Standard coding * Satisfactory level of understanding of the basic concepts and used techniques. * Demonstrate the system without proper preparation. * Basic data base handling transactions * Basic error handling * Explanations of code works done but not exceptional | 5-10 |  |
| **Good**   * Well-designed error free fully functional interactive system with proper data base handling transactions. * Well prepared system demonstration with good communication skills. * Use of error handling * Well prepared system demonstration * Good understanding of underlying concepts * Ability to pinpoint code segments and its functions. | 11-15 |  |
| **Excellent**   * Implementation of innovative ideas with valid arguments * Excellent understanding of the technical concepts and ability to explain code segments well. * Ability to justify selected techniques by stating how it has applied in a specific problem. | 16-20 |  |
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| **Task 3 System testing and evaluation** | **20** |  |
| **Poor**   * No proper technique is selected * No proper format to document testing * Lack of evidence or no evidence for the testing * No evidence of user acceptance testing | 0 - 4 |  |
| **Satisfactory**   * Selecting testing technique minimum one * Basic level of test plan with few test cases. * Test results attached with the document. * Evidence of acceptance testing and basic user feedback evaluation report | 5 - 10 |  |
| **Good**   * Use of appropriate testing techniques * Use of proper test pan and possible test cases. * Screen shots and other evidence for the test results. * User manual covering all the aspects of the system and slandered format. * Evidence of acceptance testing and good level of user feedback evaluation | 11-15 |  |
| **Excellent**   * Evidence of critical analysis of test results and conclusion. Any discrepancy and the given solution. * Excellent level of acceptance testing evidence * Evidence of critical analysis of user feedback * Discussion and lesson learned * Evidence of risk assessment | 16 - 20 |  |
| **Total Marks** | **100** |  |

**Submission Guidelines**

* Submission format Report
* Paper Size: A4
* Words: 3000 words
* Printing Margins: LHS; RHS: 1 Inch
* Binding Margin: ½ Inch
* Header and Footer: 1 Inch
* Basic Font Size: 12
* Line Spacing: 1.5
* Font Style: Times New Roman
* **Referencing should be done strictly using Harvard system**