Higher International Diploma in Computing and Software Engineering

Student Name/ID Number	
Unit Number and Title	**Web Application Development (unit 12)**
Course Title	**HID in Computing and Software Engineering**
Academic Year	
Assessor Name	
Assignment Title	
Issue Date	
Submission Date	

Unit Learning Outcomes
1. Understand the fundamentals of designing and developing an effective website 2. Planning and designing a website 3. Develop effective website for business organization 4. Evaluate and test the website

Coursework – A Website for *Mermaid Aquarium* – 100 Marks

Scenario and the Task

Assignment Brief.

Read the following scenario to develop an interactive web application system to overcome the current situation of the 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 their originality and creativity of the design.

Scenario

"Mermaid Aquarium" is a newly built aquarium company and planning to increase their publicity by launching a new website and the market for the local and global aquarium trade is expected to grow in the next year. Aquarium retail stores stock many varieties of home aquariums and supplies, along with a varied stock of freshwater fish, saltwater fish, aquatic plants and tanks. There should be enough information about the **"Mermaid Aquarium",** who may visit a website to gather information.

Web site is one of the most powerful marketing tools and management has decided to develop a web site for **Mermaid Aquarium** to promote their business.

Assume that you are working as a professional web developer and you were hired by **Mermaid Aquarium** company to design and develop web site for them.

First, you have to do proper requirement analysis to understand the required functionally for the **Mermaid Aquarium** website

Web site should full fill bellow mentioned requirements.

- Appropriate validation techniques to made information clean and clear.
  - Design data entry form with validations
- User friendliness
- Good navigational structure
- Well captioned layout designs and colour schemes
- Home page and content pages

Note: More functionalities can be added with the assumptions

1. Extensive process of requirements gathering and analysis is one of the key success factors of the web project. Use suitable requirement gathering methods to understand the user's expectations. Analyze similar web site also very helpful in this situation. Build relevant and detailed requirements specification document based on collected information
 (Marks 15)

2. Design an interactive web application for the given scenario. Design should include home page, minimum, and six web pages. *(***Marks 20)**

3. Implement highly interactive web application for the above scenario *(***Marks 10)**

4. Demonstrate implemented system. *(***Marks 20)**

5. Web site testing and evaluation is very important to make sure web site is error free and your company makes a good impression on current and potential customers. Test your web site using appropriate techniques.*(Marks 15)*

6. Prepare the documentation covering given tasks. *(Marks 20)*

Assessment Criteria

This submission will be assessed as follows	Depth of the task
TASK 1	Use of appropriate techniques to gather requirements and analyze them, prepare SRS.
TASK 2	Design a web site. Design should include home page, minimum six web pages.
TASK 3	Use different technologies such as markup languages, scripting languages, styling techniques. Follow proper coding standards
TASK 4	Error free user friendly, fully functional system
TASK 5	Test and evaluate developed web site using different testing techniques and evaluation techniques.
TASK 6	Standard documentation follow the report guideline, clear evidence for all the tasks, conclusion and timeline

This submission will be assessed as follows	Total marks Allocated	Marks obtained by the student for the answer provided
TASK 1	15	
TASK 2	20	
TASK 3	10	
TASK 4	20	
TASK 5	15	

TASK 6	20	
Total Marks	**100**	

Marking Scheme

This submission will be assessed as follows	Total marks Allocated	Marks obtained by the student for the answer provided
Task 1 Requirement gathering and analyzing	Marks 15	
Poor • No proper requirement gathering • SRS no proper format and contents	0-6	
Satisfactory • Use of one fact finding method • Compare one similar web site with developed site. • SRS document with project scope, solution, functional and non-functional requirements.	6-9	
Good • Use of more than one fact-finding technique with attached evidence. • Compare more than one similar web site with developed site use of proper criteria. • Use of proper format for the SRS document • Appropriate detailed contents under each heading of the SRS document.	9-11	
Excellent		

• Strong justification of selecting appropriate fact-finding techniques. • Detailed similar web site comparison with valid arguments. • Critical evaluation all the functions mentioned in the SRS documents.	11-15	
Task 2 System design	Marks 20	
Poor • No proper web site design • Too much of information and inappropriate colors • Inconsistency throughout web site • Irrelevant content	0-8	
Satisfactory • Design a web site with minimum six pages with relevant content. • Use of images and colures	8-12	
Good • Style consistent throughout the website. • Appropriate use of images, colors and layout designs. • Use of site map	12-14	
Excellent • Evaluate the effectiveness of the web site using proper techniques. • Strong justification of achieving company goals.	14-20	

• Use of design framework		
Task 3 Program implementation	Marks 10	
Poor • No proper standard coding • Inefficient code	0-4	
Satisfactory • Code samples to prove use of different technologies to build the web site .	4-6	
Good • Use of structured codlings • Enhance the readability and maintainability use of comments and proper naming conventions • Use of proper evidence to improve all the answers .very clear examples of code pars and other screen shots appropriately from own system.	6-7	
Excellent • Efficient coding proper use of data types, variables, constants and other structures with proper Justifications. • Use of new technologies with proper justification • Use of very clear innovative assumptions	7-10	
Task 4 System demonstration	Marks 20	

Poor • System with errors	0-8	
Satisfactory • Error free functional web site. • Few working functions	8-12	
Good • Fully functional Responsive web site • Use of different technologies (markup languages,Scripting,styling techniques) • User friendliness of the interfaces use of appropriate user-friendly messages easy navigations. • Appropriate use of client side validation techniques	12-14	
Excellent • Implementation of innovative ideas • Creative use of user interfaces • Advanced use of new technologies for the implementation of the web site	14-20	
Task 5 Web site testing and evaluation	Marks 15	
Poor • Poor testing and evaluation is done	0-6	
Satisfactory • Test the web site using one testing techniques • Test results attached with the document. • Basic user feedback report	6-9	
Good	9-11	

• Use of different techniques to test the web site backed by • Collect user feedback using appropriate justified technique. Evidence should be attached. • User feedback report with strong evaluation of user feedback.		
Excellent • Use of different testing tools for web site testing • Recommendations for the future enhancement based on user feedback and your own valid arguments. • Evidence of critical analysis of test results and conclusion. Any discrepancy and the given solution. • Use of different tools for testing.	11-15	
Task 6 Technical documentation	Marks 20	
Poor • Poor structure no clear examples and ambiguous contents. • No evidence of referring range of sources • Poor conclusion	0-8	
Satisfactory • Acceptable standard of documentation with page numbering and table of contents. • Evidence for referring range of sources to complete given tasks • Acceptable conclusion	8-12	

Good • Professional standard of documentation backed by clear examples and good explanation • In text and body citation using Harvard reference. • Proper conclusion with clearly mentioned program strengths and weakness. • Use of time line for the management of the project	12-14	
Excellent • Excellent academic writing throughout the documentation. • Detailed timeline with proper justification	14-20	
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**

Assignment Submission Guidelines

Please adhere to the given guidelines when submitting the assignments.

1. Attach the **cover sheet** (provided by us) to your assignment.

2. Fill the relevant spaces in the cover page- Program, your name, Assignment Title, and submitted date in the relevant spaces of the coversheet.

3. Learner Declaration given in the cover page **should be marked** accurately with your signature and date.

4. **All the tasks should be in one document.**

5. Name your assignment (word document) as MODULE NAME_YOUR NAME
   eg: SM, OM, PD_ (Your name)

6. Do not send the cover sheet and your assignment separately.
7. Send your assignment in original word document. PDF files are not accepted.

Please email your assignments to kavindi.k@aibt.education not to the lecturer.

- **Subject of the email**- HID Com and SE Assignment Submission|"Module name" and "Your name"

Please strictly follow the instructions given, assignments sent without adhering to the given guidelines are not accepted.