



UNIVERSITY
OF WOLLONGONG
IN DUBAI

CSIT128: Introduction to Web Technology

Assignment 2 – First & Second Deliverables

Spring 2025

Version	Author	Effective Date	Change Description
1.0	Dr. Haitham Yaish	May 10, 2023	Define the first version
2.0	Dr. Haitham Yaish	April 21, 2024	Updated the problem which will be solved in the assignment, and the weight of the deliverables.
3.0	Dr. Haitham Yaish	April 30, 2025	Updated the problem which will be solved in the assignment.

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Assignment 2 Details and Submission Guidelines

Assignment Group	Group of four members (from the same lab)
Assignment Title	Internship Management Website
Purpose of the Assignment (with CLO Mapping)	<p>This assignment is designed to assess students' knowledge and skills related to the following learning outcomes:</p> <p>LO1 - Describe the main web technologies in use and select appropriate technologies for a particular context or application.</p> <p>LO2 - Examine various Web formats and standards and apply them appropriately.</p> <p>LO3 - Create scripts that handle input from forms displayed in web browsers.</p> <p>LO4 - Configure and install a Web server that provides controlled access.</p> <p>LO5 - Design, build and implement simple Web-based applications using mark-up languages and scripting, with an emphasis on client-side scripting.</p>
Weight	<p>The weight of the first deliverable of Assignment 2 is 9%</p> <p>The weight of the second deliverable of the Assignment 2 is 5%</p>
Total Marks	First deliverable 100 marks, and Second deliverable 5 marks.
Submission Guidelines	<ul style="list-style-type: none"> • All work must be submitted on Moodle by the due date. • The reports of the assignment must be in MS Word format, 1.5 spacing, 11-pt Calibri (Body) font and 2.54 cm margins on all four sides of your page with appropriate section headings. • Reference sources must be cited in the text of the report and listed appropriately at the end in a reference list using Harvard referencing style.
Due Date	<p>Deliverable 1: Week 10, Sunday 22nd June 2025 - submit your deliverable on Moodle.</p> <p>Deliverable 2: Week 11, during your lab session, all group members are required to present the practical assignment and upload a presentation slides to Moodle.</p>
Late submission	<ul style="list-style-type: none"> • Refer to the subject outline of the subject.
Academic Misconduct and Plagiarism	<ul style="list-style-type: none"> • Plagiarism is defined as the presentation of another person's work as your own. This includes copying from books without referencing the material or copying from another student's work.

Introduction

Web technologies define the way how computers communicate with each other using markup languages that programmers use to create websites and enterprise web applications. A web application is a computer programme that allows us to retrieve data to/from a database or any other data storage over the internet, these programmes are developed using web technologies such as HTML, CSS, JavaScript, JSON, XML, Node.js etc and can be accessed using a web browser. Web applications are designed to solve specific business problems, as well as promote and sell business products and services. Therefore, it will be beneficial for UOWD students to learn how to develop in this assignment a web application using cutting-edge web technologies which the students are learning in this subject.

In this assignment, the students will build an Internship Management website that allows students to explore and apply for internship opportunities posted by registered companies. The website will support user registration for both students and companies, enabling companies to post internship listings and manage applications, while students can create profiles, browse internships, and submit applications. The project will incorporate both client-side and server-side web development, with dynamic website content and application data stored and managed through a structured relational database.

The students will develop the client side, the server side of the web application along with the structured database which they will integrate with the client side in the first deliverable of the assignment, and then in the second deliverable, the students will demonstrate their assignment. By completing this assignment, the students will learn how to develop an enterprise web application end-to-end.

Objectives

1. Provide methods to design and implement a web application, including the design and/or the integration of different software components.
2. Enhancing critical thinking skills given the:
 - a. Ability to design a system, component, or process to meet desired needs within realistic constraints in the Information Technology world using web technologies.
 - b. Ability to function on multidisciplinary teams.
3. Learn programming languages and technologies, including HTML, JavaScript, CSS, JSON, XML, Node.js, MySQL database, and other web platforms and libraries.
4. Understanding of professional and ethical responsibility.

Assignment 2 Files

In this first deliverable of the assignment, the student should submit the web application design which should include HTML, CSS, JavaScript, images, Node.js, JSON, Export file of MySQL database, and any other necessarily files.

Assignment Details

- This assignment will address a real-life application that will prepare students for real-life business systems' analysis/design reports and implementation. It allows students to explore the steps of both the analysis, design, and implementation phases.
- In general, there are two types of users using the web application: first, the companies who post internship opportunities, and second, the students who browse and apply for those internships. Accordingly, the web application comprises two distinct sites: an administration site and a user site. The administration site is for companies to manage internship postings and applications, while the user site is for students to search for internships, apply, and track their application status.

The administration site should include:

1. **Company Authentication (Companies who post internships):** implement company authentication to allow companies to sign up to create their accounts and post internships, and log in to their accounts.
2. **Home Page / Landing Page:** each company should have its own dashboard, which can be used to navigate the company admin to web pages to create internships, manage posted internships, view and manage internship applications, and manage their accounts.
3. **Internship Management:** allow companies to create, view, edit, and delete internship listings. Each listing should include details such as title, location, type (remote/on-site), required skills, salary, duration, deadline, and any other required details.
4. **Internship Applications View and Management:** enable companies to view and manage applications submitted by students for each internship. Companies should be able to mark applications as rejected, shortlisted, or accepted. In addition, they can search for applications submitted for each internship listing by student name, and other search options are optional.
5. **Company Account Management:** enable companies to view and update their account details.
6. **Logout Link:** Include a logout link on all company pages.

The user site should include:

1. **User (student) Authentication:** implement user authentication to allow them to sign up by providing the necessary student details and log in.
2. **Home Page / Landing Page:** a well-designed, user-friendly landing page which is used to navigate the student to the listed internships page, the submitted applications page of the student, the profile page in order to view the student profile and update it, and navigate the student to any other required details.
3. **Internship Search and Application:** provide students with a search and filtering system to explore internships based on categories such as domain, location, salary, company, or any other filtering details. The students should be able to view the internship details. Whereas, the logged-in students should be able to view and apply online for internships by filling out an application form, uploading their resume, and then tracking the status of their applications from the internship page they applied for.
4. **Student Profile Management:** enable students to view and update their account details.

5. **Logout Link:** include a logout link on all the user site pages.

The following general specification must be considered and implemented:

1. First Deliverable:

- Build a web application using web technologies, including HTML, JavaScript, CSS, images, Node.js, JSON, MySQL and any other necessarily files.
- Submit a report of the first deliverable of the assignment. More details are provided in the Marking Criteria section.
- The web application should include the processes of the required business scenario of the web application.
- Develop a user interface (UI) and integrate it with the server-side code using Node.js, and MySQL database. You have to take into your consideration the following requirements once you integrate the user interface of the web application (The client side) with the server-side which includes Node.js, and MySQL database:

The administration site (Company):

- a. **The sign-up page – admin site:** once the end user (The company user) submits the Sign-up page, the filled-out data in the form should be stored in MySQL database.
- b. **The login page – admin site:** should validate the credentials entered by the end user from MySQL database.
- c. **The internship management – admin site:** should allow managing and displaying the content of the internships from MySQL database.
- d. **Internship Applications View and Management – admin site:** should allow viewing and searching the submitted students' applications from MySQL database, and marking the status of the application and store the status of the application in MySQL database.
- e. **Company Account Management – admin site:** should allow updating information of the company account in MySQL database.
- f. In addition to any other optional data stored by the students should be dynamically retrieved from MySQL database.

The user site (Student):

- a. **The sign-up page – user site:** once the end user (The student) submits the Sign-up page, the filled-out data in the form should be stored in MySQL database.
- b. **The login page – user site:** should validate the credentials entered by the end user from MySQL database.
- c. **Student Account – user site:** should allow viewing and updating information of the student profile in MySQL database.
- d. **Browsing Internship Applications – user site:** should allow students viewing the internships posted by the companies from MySQL database.
- e. **Applying and Viewing Internship Applications – user site:** should allow applying students to apply for internships and record this attempt in MySQL database, and allow students to view the internships they applied for from MySQL database.
- f. In addition to any other optional data stored by the students should be dynamically retrieved from MySQL database.

2. Second Deliverable:

Each group should present their web application and the duration of the presentation should be **12 minutes**. All the group members should participate in this presentation.

Deliverables Files Format:

1. First Deliverable:

Submit a compressed file includes the report, and the assignment files to Moodle. The name of the file should be as follows:

Subject code_term_Lab Tutor Name_Lab Day_Lab Time_Group Number_Deliverable Number
(e.g. CSIT128_Spring2025_Omar_Mon_12_30_Group 1_D1)

2. Second Deliverable:

Submit the presentation file (e.g. PowerPoint) on Moodle. The name of the compressed file should be as follows:

Subject code_term_Lab Tutor Name_Lab Day_Lab Time_Group Number_Deliverable Number
(e.g. CSIT128_Spring2025_Omar_Mon_12_30_Group 1_D2)

You should submit the above two submission files using the specific submission links which is listed on Moodle (**one separate link for each submission**), under the *Assignment 2* section, and listed under your tutor's name. The submission links should match with the day and time of the lab section you are enrolled in, and the deliverable number. **Please make sure that the size of the files should not exceed 200 MB.**

Marking Criteria

Marking criteria of the First Deliverable (9%) - 100 Marks

Sections to be included in the report	Description of the section	Marks
Cover page, and table of contents	Write a Cover page, and table of contents.	2
Problem statement, and description.	Write a problem statement, and description of the web application that you are building.	3
HTML Files	Create all the HTML files required for your web application.	10
JavaScript Files	Create all the JavaScript file(s) required for your web application. Make sure the JavaScript file(s) are external files.	10
Form Validation	Create the necessary form validations to avoid incorrect data entry.	10
CSS Files	Create all the CSS file(s) required for your web application. Make sure the CSS file(s) are external files.	10
Images/Logs	Provide suitable images/logo.	5
The design and logic of the User Interface flow.	Provide a propriate user interface design and flow.	5
Creating dynamic web pages integrated with MySQL database.	The administration and user sites should contain dynamic web pages that retrieve and save data to the MySQL database as specified in the Assignment Details section.	15
MySQL database	Construct MySQL relational database that included all the necessary tables to accommodate the data captured from the web pages of the website.	15
Node.js Files	Construct all the necessary Node.js files and integrate them with the HTML pages and MySQL database.	10

Declaration of Contribution	Provide a section in the report that clarifies and defines a comprehensive declaration on each member's participation in the group.	3
Organization of the report	Ensure everything is typed using a word processor and organized well.	2
	Total	100

Marking criteria of the Second Deliverable (5%) – 5 Marks

Section	Description of the section	Marks
Introduction	Provide an introduction about the group members of the practical assignment, and the selected service of the web application.	0.25
Presentation of the web pages and the features added to the web application	Provide a detailed presentation of the web application that included the web pages, the features of the web pages, and how the end user can use and navigate through those web pages.	1.5
Presentation of the solution (code)	Provide a demonstration of the web application code, and in this demonstration, the group must present proof of how the content provided on the web pages is dynamic content.	1
Concussion	Provide a conclusion about the web application created in this assignment.	0.25
Practical Assignment Discussion.	Attended the practical Assignment and discussed with the instructor the assignment.	2

Marking Rubrics

Marking Rubrics of the Second Deliverable

Mark	80-100	70-79	60-69	50-59	<50
	Excellent	Very Good	Good	Satisfactory	Unsatisfactory
Cover page, and table of contents /2	Excellent Cover page, and table of contents	Very Good Cover page, and table of contents	Good Cover page, and table of contents	Satisfactory Cover page, and table of contents	Unsatisfactory Cover page, and table of contents or does not exist.
Problem statement, and description /3	Excellent Problem statement, and description of the proposed web application.	Very Good Problem statement, and description of the proposed web application.	Good Problem statement, and description of the proposed web application.	Satisfactory Problem statement, and description of the proposed web application.	Unsatisfactory Problem statement, and description of the proposed web application.
HTML Files /10	Excellent HTML files	Very good HTML files	Good HTML files	Incomplete HTML files	Unsatisfactory HTML files

JavaScript Files /10	Excellent JavaScript files	Very good JavaScript files	Good JavaScript files	Incomplete JavaScript files	Unsatisfactory JavaScript files
Form Validation /10	Provided excellent form validations	Provided very good form validations	Provided very good form validations	Provided incomplete form validations	Provided Unsatisfactory form validations or not any.
CSS Files /10	Excellent CSS files	Very good CSS files	Good CSS files	Incomplete CSS files	Unsatisfactory CSS files
Images/Logs /5	Excellent Images/Logs files	Very good Images/Logs files	Good Images/Logs files	Incomplete Images/Logs files	Unsatisfactory Images/Logs files
The design and logic of the User Interface flow. /5	All or the majority of the UI design and the UI flow completely created.	Around an average number of UI design and the UI flow completed.	More than half of UI design and the UI flow completed.	Almost half of UI design and the UI flow completed.	Less than the half of UI design and the UI flow, or none of them created.
Creating dynamic web pages integrated with MySQL database /15	All or the majority of the required web pages and options completely created dynamically and integrated with MySQL database.	Around an average number of the required web pages and options created dynamically and integrated with MySQL database.	More than half of the required web pages and options created dynamically and integrated with MySQL database.	Almost half of the required web pages and options created dynamically and integrated with MySQL database.	Less than the half of the required web pages and options created dynamically and integrated with MySQL database, or none of them created.
MySQL database /15	All or the majority of the database tables are created and populated from the web pages of the website.	Around an average number of the database tables are created and populated from the web pages of the website.	More than half of the database tables are created and populated from the web pages of the website.	Almost half of the database tables are created and populated from the web pages of the website.	Less than the half of the database tables are created and populated from the web pages of the website, or none of them created.
Node.js Files /10	All or the majority of the Node.js Files created.	Around an average number of the of the Node.js Files created.	More than half of the of the Node.js Files created.	Almost half of the of the Node.js Files created.	Less than the half of the of the Node.js Files created, or none of them created.
Declaration of Contribution /3	Clearly defined and comprehensive declaration.	Very good declaration with minor omissions.	Good declaration with minor omissions.	Incomplete or lacking details.	Missing or poorly articulated declaration.

Organization of the report /2	Excellent typed using a word processor and organized very well.	Very good typed using a word processor and organized well.	Typed and organized in a good way.	Typed and organized in a satisfactory manner.	Typed and organized in an unsatisfactory manner, or none provide
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Marking Rubrics of the Second Deliverable

Mark	80-100	70-79	60-69	50-59	<50
	Excellent	Very Good	Good	Satisfactory	Unsatisfactory
Introduction /0.25	Excellent Introduction	Very Good Introduction	Good Cover Introduction	Satisfactory Introduction	Unsatisfactory Introduction, or does not exist.
Presentation of the web pages and the features added to the web application /1.5	All or the majority of the web pages and the features added to the web application are presented.	Around an average number of the web pages and the features added to the web application are presented.	More than half of the web pages and the features added to the web application are presented.	Almost half of the web pages and the features added to the web application are presented.	Less than the half of the web pages and the features added to the web application are presented, or none of them presented.
Presentation of the solution (code) /1	Excellent presentation of the web application code.	Very good presentation of the web application code.	Good presentation of the web application code.	Satisfactory presentation of the web application code.	Unsatisfactory presentation of the web application code, or no presentation of the code is provided.
Conclusion /0.25	Excellent conclusion	Very Good conclusion	Good Cover conclusion	Satisfactory conclusion	Unsatisfactory conclusion, or does not exist.
Practical Assignment Discussion. 0/2	Attended the practical assignment discussion and debated the practical assignment in an excellent way.	Attended the practical assignment discussion and debated the practical assignment in a very good way.	Attended the practical assignment discussion and debated the practical assignment in a good way.	Attended the practical assignment discussion and the debate was satisfactory.	Attended the practical assignment discussion and the debate was unsatisfactory, or the student didn't attend the practical assignment discussion.

End of Assignment 2 – Good Luck