ROBERT GORDON UNIVERSITY ABERDEEN

Assessment Brief - Coursework

Academic Year	**2024-25**
Semester	**2**
Module Number	**CM1605**
Module Title	**Web Technology**
Assessment Method	**Submission 1 -** Low fidelity wire frames (designed using Figma/Visio) **Submission 2** – User Interface designed with HTML & CSS **Submission 3 -** Complete coursework submission A complete integrated Web Application (HTML, JavaScript, XML, CSS) zipped as a separate file + a single PDF report submitted electronically via Campus Moodle.
Deadline (time and date)	**Submission 1 – 24th June 2025 1.00pm** **Submission 2 – 08th July 2025 1.00pm** **Submission 3 – 05th August 2025 1.00pm**
Submission	**Assessment Dropbox in the Module Study Area in CampusMoodle.**
Word Limit	**1000**
Use of Generative Artificial Intelligence (AI) text	~~**IS**~~ **/ IS NOT authorised** *Delete as appropriate.*
Module Co-ordinator	**Janani Harischandra**

What knowledge and/or skills will I develop by undertaking the assessment?

Describe the knowledge and/or skills that students will develop by undertaking the assessment.

- Gain knowledge on the web client-side technologies HTML, CSS, XML and Java Scripts ES6 and report writing.
- Understand the importance of user experience in web design and development.

What knowledge and/or skills will I develop by undertaking the assessment?

On successful completion of the assessment students will be able to achieve the following

Learning Outcomes:

1 Describe web application architectures and organisation of websites.

2 Apply programming techniques for interactive web application development.

3 Apply user experience design methods for interactive web applications.

4 Implement an integrated web-based solution, including a range of web technologies and data sources, for a real-world problem.

Please also refer to the Module Descriptor, available from the module Moodle study area.

What is expected of me in this assessment?

Task(s) – content

Select a **ONE** of the case studies below to work on the assignment.

Task (A)

- Create low fidelity wireframes for **TWO** web pages using Figma/Visio

Figma Wireframe Tutorial for Beginners (2025)

Task (B)

- Design the above selected **TWO** web pages using HTML and CSS refer to Styling Guidelines

Task (C) - Website Development

Case Studies

1. Virtual Library System

Description: Create a digital library platform for browsing and borrowing eBooks

- A homepage with interactive navigation ("Home, About, Contact US, etc.")
- Design a borrow request form with JavaScript validation
- JavaScript filtering by category, author, or year
- Add **Wish List** to select multiple books before checkout
- Integrate XML for book metadata (title, author, summary, rating)
- Strong UX/UI: contrast, typography, accessibility

2. A Travel Agency Website

Description: A platform to explore and book travel packages

- A homepage showing featured destinations and packages. Also, there should be a navigation bar as well.
- Design a trip booking form with JavaScript Validations.
- JavaScript filtering option for packages according to price, budget and duration.
- A Cart to add multiple packages before checkout.

- Integrate XML for trip details and customer reviews
- Apply responsive, accessible design principles

3. Pet Adoption and Sales Portal

Description: Design a site for adopting or purchasing pets.

- A home page with an interactive navigation bar (images, products, prices) and two sections as adoption and sales.
- Design a form for adoption/sales with JavaScript validation
- Use JavaScript to dynamically filter animals by breed, price, age.
- Design a cart to order pets and use JavaScript to dynamically handle the quantity of animals that can be selected.
- Integrate XML to display pet profiles (name, breed, price, health).
- Incorporate UX elements: consistent layout, contrast, accessible forms.

4. Conference Registration Website

Description: Design a Platform for event session registrations.

- A home page with an interactive navigation bar displaying available venues with booking details.
- Design an event booking form with JavaScript validation.
- Include JavaScript for event filtering (e.g., by date, location, capacity).
- Integrate XML to display past event data (e.g., dates, location, price).
- Incorporate UX/UI principles such as clear typography, color contrast, intuitive navigation, web accessibility techniques.

5. Digital Music Store

Description: Design a website for browsing and purchasing digital music.

- A homepage with an interactive navigation bar displaying sections like "Categories," "Best Sellers," "New Arrivals".
- An order form to purchase different items with JavaScript validation.
- Dynamic interaction using JavaScript to filter songs by category (e.g., Genre, Artists and Type) and sort by price or popularity.
- Integrate XML to represent metadata like title, artist, price and more details about the songs.
- Incorporate UX/UI principles such as clear typography, color contrast, intuitive navigation, web accessibility techniques

What is expected of me in this assessment?

Styling Guidelines

- **Global CSS** file provided for the website to maintain a consistent style. Additional styles specific to this page should be created as either an **additional external CSS file**, or i**nternal CSS** within the page.
- The home page should be designed in a way that the user can access several parts of the web site with website logo and name. Feel free to use royalty free websites to find a suitable logo (https://www.istockphoto.com/) but reference your resources.
- The links on the home page should look like buttons and have a hover effect. This should be implemented using CSS.

Form Design and JavaScript Validation

- The form should contain at least **SIX** different types of form elements suitable for the chosen context (eg: Text fields, text area, radio buttons, check boxes, email, password etc)
- Styled using proper CSS
- Mandatory field validation for user inputs chosen for any **THREE** selected form elements with suitable success message using Java Script upon successful form submission (***HTML 5 validations cannot be used- if used zero marks will be awarded***)

Java Script Functionality

- The filtering tasks should work for more than **TWO** options

XML integration

- A well-formed XML file should used to display the given information and render on the browser using JavaScript

HTML Page Validation

- All pages should be validated with no errors. Warnings are acceptable. Provide evidence that all your pages have been validated successfully in the report. Include screenshots or reports from the validation tool to demonstrate compliance with web standards. Provide those in the Validation page in the report.

Individual Report:

The student must submit a detailed report documenting the implementation of their assigned tasks justifying your design choices with evidence where appropriate using the below given tools. The evaluation of the developed website will be carried in the self-reflection section of the report. The following UX Principles must be implemented and will be marked from the evidence provided in your report with Justifications.

- Introduction
- Technical Discussion of the Java Script functionality, JavaScript validations
- Navigation techniques
- Colour balance/Selection (appropriateness justified through colour contrast test)
- Typography (font style/size appropriateness justified)
- Accessibility Techniques (Text, Tables, Forms, Images)
- Accessibility test report
- Validation reports – for **TWO** web pages

- Self-Reflection – challenges, solutions, minutes of the tutor feedback for the UI design explaining the pre-post refinements
- References – use Harvard referencing style

WAVE (Web Accessibility Evaluation Tool), a free, user-friendly tool that provides visual feedback on accessibility issues directly on your web page. It highlights errors, contrast issues, and structural problems, helping you address them effectively.

axe Accessibility Checker, a free browser extension for Chrome and Firefox that integrates seamlessly into your workflow. It offers detailed insights into accessibility issues, prioritizing them based on severity and providing clear solutions.

In-Class Demonstration:

You are expected to deliver a compulsory live [15mins] demo of your web site.

Task(s) – format

Coursework submission guideline

Submission 1 - Low fidelity wire frames (designed using Figma/Visio)

1. Single PDF file with images of the web pages submit via Campus Moodle

Submission 2 – User Interface designed with HTML & CSS

1. Single PDF file with images of the two web pages submit via Campus Moodle

Submission 3 - Final complete submission

1. A complete integrated Web Application of the student work with source code (HTML, JavaScript, XML, CSS) zipped as a separate file + a single PDF report submitted electronically via Campus Moodle.

The report and the zipped file should be named with your name eg: RGUStuNO

How will I be graded?	
A number of subgrades will be provided for each criterion on the feedback grid which is specific to the assessment. The overall grade for the assessment will be calculated using the algorithm below*. *[Amend as appropriate to your module.]*	
A	At least 50% of the subgrades to be at Grade A, at least 75% of the subgrades to be at Grade B or better, and normally 100% of the subgrades to be at Grade C or better.
B	At least 50% of the subgrades to be at Grade B or better, at least 75% of the subgrades to be at Grade C or better, and normally 100% of the subgrades to be at Grade D or better.
C	At least 50% of the subgrades to be at Grade C or better, and at least 75% of the subgrades to be at Grade D or better.

How will I be graded?	
D	At least 50% of the subgrades to be at Grade D or better, and at least 75% of the subgrades to be at Grade E or better.
E	At least 50% of the subgrades to be at Grade E or better.
F	Failing to achieve at least 50% of the subgrades to be at Grade E or better.
NS	Non-submission.

*If the word count is above the specified word limit by more than 10% or the submission contains an excessive use of text within tables, the grade for the submission will be reduced to the next lowest grade.

Feedback grid

GRADE	A	B	C	D	E	F
DEFINITION / CRITERIA (WEIGHTING)	**EXCELLENT** Outstanding Performance	**COMMENDABLE/VERY GOOD** Meritorious Performance	**GOOD** Highly Competent Performance	**SATISFACTORY** Competent Performance	**BORDERLINE FAIL**	**UNSATISFACTORY** Fail
Web Page Design (2 subgrades)	Complete and excellent Implementation of the web pages using HTML 5 and CSS min - 8 rules with an eye-catching design layout having proper navigation bar, logo at the top.	Complete and very good Implementation of the web pages using HTML 5 and CSS min 8- rules with a good design layout having proper navigation bar, logo at the top.	Complete and well Implementation of the web pages using HTML 5 and CSS min 8- rules with good design layout having proper navigation bar, at least a logo at the top.	Complete Implementation of the web pages using HTML 5 and CSS min 8- rules with appropriate design layout having proper navigation bar, at least a logo at the top.	Incomplete Implementation of the web pages using HTML 5 and CSS min 8- rules with poorly design layout having poorly designed navigation bar, at least a logo at the top.	Incomplete and unsatisfactory implementation of the web pages with poor layout.
Form Design and Java Script Validation (2 subgrades)	Complete and excellent implementation of HTML form (explicit labels) using HTML 5 and nicely designed/aligned/ styled using CSS (float properties, flex etc) with having 3 compulsory criteria validation implemented using JavaScript.	Complete and very good implementation of HTML forms (explicit labels) using HTML 5 and designed/aligned/styled using proper CSS properties with having 3 compulsory criteria validation implemented using JavaScript.	Complete and well implementation of HTML form using HTML 5 and designed/aligned/styled using proper CSS properties with having at least 2 compulsory criteria validation implemented using JavaScript.	Complete implementation of HTML form using HTML 5 and designed/aligned/styled using proper CSS properties with having at least 1 compulsory criteria validation implemented using JavaScript.	Incomplete implementation of HTML forms using HTML 5 and designed using some CSS properties with no Java Script.	Incomplete and unsatisfactory implementation of HTML forms using HTML 5 and designed using some CSS properties with no Java Script validations.
JavaScript Functionality (1 subgrade)	Complete and excellent implementation of the JavaScript Functionality working with well commented, indented and clear code with no errors.	Complete and very good implementation of the JavaScript Functionality working with well commented, indented and clear code with minor error or 2 accepted.	Complete and well implementation of the JavaScript Functionality working with fairly commented, indented and clear code with minor error or 2 accepted and 1 major error accepted.	Complete implementation of JavaScript Functionality working with somewhat commented, indented and clear code with one major error detected.	Incomplete implementation of JavaScript Functionality with poorly commented, indented, and clear code with major errors detected.	Incomplete and unsatisfactory of implementation of JavaScript Functionality with no working functionalities.

GRADE	A	B	C	D	E	F
DEFINITION / CRITERIA (WEIGHTING)	**EXCELLENT** Outstanding Performance	**COMMENDABLE/VERY GOOD** Meritorious Performance	**GOOD** Highly Competent Performance	**SATISFACTORY** Competent Performance	**BORDERLINE FAIL**	**UNSATISFACTORY** Fail
XML file integration (1 subgrade)	Complete and excellent implementation of the XML file creation complying to 8 well-formed rules.	Complete and very good implementation of the XML file creation complying to 8 well-formed rules.	Complete and well implementation of the XML file creation complying to at least 5 well-formed rules.	Complete implementation of the XML file creation complying to at least 4well-formed rules.	Incomplete implementation of the XML file with no well-formed rules.	Incomplete and unsatisfactory of implementation of XML file creation.
Implementation of UI/UX principles in web pages (1 subgrades)	Complete and excellent implementation of the HTML web accessibility techniques (image, tables, forms) added in the HTML pages, consistency of the website achieved through CSS min – 8 rules, appropriate colour selection, typography and iconography used.	Complete and very good implementation of the HTML web accessibility techniques (image, tables, forms – at least 2 of them) added in the HTML pages, consistency of the website achieved through CSS min- 8 rules, appropriate colour selection, typography and iconography used.	Complete and reasonable implementation of the HTML web accessibility techniques (image, tables, forms – at least 1 of them) added in the HTML pages, consistency of the website achieved through CSS – min 8 rules, appropriate colour selection, typography and iconography used.	Some evidence of Implementation of the HTML web accessibility techniques (image, tables, forms – at least 1 of them) added in the HTML pages, some consistency of the website achieved through CSS less than min rules, appropriate colour selection, typography, and iconography.	Incomplete or lack of any Implementation of the HTML web accessibility techniques (image, tables, forms added in the HTML pages, consistency is achieved barley and lack of appropriate colour selection, typography and iconography used.	Very limited and poor implementation of HTML web accessibility techniques and no consistency is achieved barley and lack of appropriate colour selection, typography and iconography used.
Demonstration (1 subgrades)	Presented with very good explanations with justifications and confidence.	Presented well with less justifications and explanations.	Presented moderately well the adequate explanations.	Presented with unclear explanations.	Did not present, nor explanation given	Did not present, nor explanation given
	Note**: If the student was absent for the live viva demonstration, the entire module grade will be marked as "NS"					

GRADE	A	B	C	D	E	F
DEFINITION / CRITERIA (WEIGHTING)	**EXCELLENT** Outstanding Performance	**COMMENDABLE/VERY GOOD** Meritorious Performance	**GOOD** Highly Competent Performance	**SATISFACTORY** Competent Performance	**BORDERLINE FAIL**	**UNSATISFACTORY** Fail
Report (2 subgrade)	Complete and excellent report, covering sections – Introduction, technical discussion, challenges and solutions with tutor feedback, very good explanation of code snippets, navigation techniques used. justification for colour, typography selection and evidence of 3 accessibility techniques used with colour and accessibility test reports with proper reference style and validation reports.	Complete and very good report, covering sections – Introduction, technical discussion including at least challenges or and solutions, tutor feedback, good explanation of code snippets, navigation techniques used. justification for colour, typography selection and evidence of 3 accessibility techniques used with colour and accessibility test reports with proper reference style and validation reports.	Complete and well report, covering sections – Introduction, technical discussion including at least challenges or and solutions, tutor feedback, fair explanation of code snippets, navigation techniques used. justification for colour, typography selection and evidence of at least 2 accessibility techniques used with colour and accessibility test reports with proper reference style and validation reports.	Complete report, covering sections – Introduction, technical discussion including at least challenges or and solutions, some tutor feedback, some explanation of code snippets, navigation techniques used. justification for colour, typography selection and evidence of at least 1 accessibility techniques used with at least colour or accessibility test reports with some validation report without proper referencing style.	Incomplete report with less information in Introduction, technical discussion with no proper details of challenges or solutions, no tutor feedback, no explanation of code snippets, navigation techniques used. Poor justification for colour, typography selection and evidence of at least 1 accessibility techniques used with at least colour or accessibility test reports with erroneous validation reports, no proper referencing style.	Poor report presentation with less information in Introduction, technical discussion with no proper details of challenges or solutions, no tutor feedback, no explanation of code snippets, navigation techniques used. No justification for colour, typography selection and evidence of no accessibility techniques used, no test report or no validation reports or references added.

Coursework received late, without valid reason, will be regarded as a non-submission (NS) and one of your assessment opportunities will be lost.

What else is important to my assessment?

What is the Assessment Word Limit Statement?

It is important that you adhere to the Word Limit specified above. The Assessment Word Limit Statement can be found in Appendix 2 of the RGU Assessment Policy. It provides detail on the purpose, setting and implementation of wordage limits; lists what is included and excluded from the word count; and the penalty for exceeding the word count.

What's included in the word count?

The table below lists the constituent parts which are included and excluded from the word limit of a Coursework; more detail can be found in the full Assessment Word Limit Statement. Images will not be allowed as a mechanism to circumvent the word count.

Excluded	Included
Cover or Title Page	Main Text e.g. Introduction, Literature Review, Methodology, Results, Discussion, Analysis, Conclusions, and Recommendations
Executive Summary (Reports) or Abstract	Headings and subheadings
Contents Page	In-text citations
List of Abbreviations and/or List of Acronyms	Footnotes (relating to in-text footnote numbers)
List of Tables and/or List of Figures	Quotes and quotations written within "…"
Tables – mainly numeric content	Tables – mainly text content
Figures	
Reference List and/or Bibliography	
Appendices	
Glossary	

What are the penalties?

The grade for the submission will be reduced to the next lowest grade if:

- The word count of submitted work is above the specified word limit by more than 10%.
- The submission contains an excessive use of text within Tables or Footnotes.

What else is important to my assessment?

What is plagiarism?

Plagiarism is "the practice of presenting the thoughts, writings or other output of another or others as original, without acknowledgement of their source(s) at the point of their use in the student's work. All materials including text, data, diagrams or other illustrations used to support a piece of work, whether from a printed publication or from electronic media, should be appropriately identified and referenced and should not normally be copied directly unless as an acknowledged quotation. Text, opinions or ideas translated into the words of the individual student should in all cases acknowledge the original source" (RGU 2022).

What is collusion?

"Collusion is defined as two or more people working together with the intention of deceiving another. Within the academic environment this can occur when students work with others on an assignment, or part of an assignment, that is intended to be completed separately" (RGU 2022).

For further information please see Academic Integrity.

What if I'm unable to submit?

- The University operates a Fit to Sit Policy which means that if you undertake an assessment then you are declaring yourself well enough to do so.
- If you require an extension, you should complete and submit a Coursework Extension Form. This form is available on the RGU Student and Applicant Forms page.
- Further support is available from your Course Leader.

What additional support is available?

- RGU Study Skills provide advice and guidance on academic writing, study skills, maths and statistics and basic IT.
- RGU Library guidance on referencing and citing.
- The Inclusion Centre: Disability & Dyslexia.
- Your Module Coordinator, Course Leader and designated Personal Tutor can also provide support.

What are the University rules on assessment?

The University Regulation 'A4: Assessment and Recommendations of Assessment Boards' sets out important information about assessment and how it is conducted across the University.