| University of Central Lancashire logo  **Department of Computer Science** | UCLan Coursework Assessment Brief | | 2024-2025 |
| --- | --- | --- | --- |
| Module Title: Web Technologies | | |
| Module Code: CO1707 | | Level 4 |
| **Assignment 1: Web Application** | This assessment is worth 40% of the overall module mark | |

| THE BRIEF / INSTRUCTIONS This assessment requires you to demonstrate your understanding of the materials covered in Semester 1.   * You are required to develop a responsive web application that responds to target platforms. This means your application should adjust responsively to better fit the target device and screen. * Your web application should include four views that provide one of more of the following: interactivity, manipulation of the DOM, HTML5 semantic elements, CSS3 media queries and JavaScript. * The resources (media and assets) required to complete this assignment can be found on Blackboard. * You must submit your work by the specified deadline and follow the submission guidelines below. |
| --- |

| PREPARATION FOR THE ASSESSMENT  * Completion of the lab materials will provide formative feedback in preparation for this assessment * Lectures and labs during the first semester are intended to ground your understanding to support this * You are expected to continue this grounding as an independent study alongside the timetabled sessions |
| --- |

| RELEASE DATES AND HAND-IN DEADLINE *(you must submit your files onto Blackboard before having a demo conducted)*  Please note that this is the final time you can submit – not the time to submit!  Your feedback / feed forward and mark for this assessment will be provided within 15 working days. |
| --- |
| SUBMISSION DETAILS This is an individual assignment, and you are NOT permitted to work in groups. You must submit your working application via the submission link on Blackboard. You must submit a .zip file (no other file formats are accepted) with the naming structure **“surname\_firstname.zip”** containing ONLY the files required as part of this brief. You are also advised to test your submission to verify that everything works as expected (i.e., download, unzip, and run all pages).  ‘Unfair means’ includes copying text from existing sources without acknowledgement (‘plagiarism’), working with another student to complete an individual task (‘collusion’), or commissioning a third-party to complete an assessment on your behalf (‘commissioning’). Suspected cases of unfair means will require a formal hearing, and so may delay assessment, feedback and potentially your course progression. If two students share the same work, then both will be considered as unfair means. Guidance can be found in Section 11 of the [UCLan Academic Integrity Policy](https://www.uclan.ac.uk/assets/student-contracts/2022-23/academic-integrity-policy-and-procedure-for-academic-misconduct-2223.pdf).  Students are NOT permitted to make use of existing CSS frameworks (e.g., Bootstrap) or libraries (e.g., React) in completion of this assignment. All code, assets, and media, must be written by you, or supplied to you by your tutor.  **Important:** Students must demonstrate their interactive application for their work to be marked. Students should submit a video demonstration (screen record with voice-over, up to 3 minutes in length) alongside their website to become eligible for the pass mark. Lab demos will then take place in timetabled labs, allowing students to answer questions about their submission, to then become eligible for the higher marks. No attendance at the lab demo, together with no video demo submitted via Blackboard, will mean that a submission will receive ‘zero’ marks overall.  Students are required to reference any wider reading they have completed which has influenced their submission. Students should consult their UCLan Student Handbook for guidance on referencing. The Library support materials, including [guidance-on-referencing-code](https://msuclanac.sharepoint.com/sites/UCLanLibrary/Shared%20Documents/Forms/AllItems.aspx?id=%2Fsites%2FUCLanLibrary%2FShared%20Documents%2Fguidance%2Don%2Dreferencing%2Dcode%2Epdf&parent=%2Fsites%2FUCLanLibrary%2FShared%20Documents), should also be consulted. Please speak with your tutor if you are unsure. |

| LEARNING OUTCOMES ASSESSED BY THIS WORK Learning outcomes assessed by this assignment (from the module descriptor):   * Design and evaluate appropriate user interfaces for front-end web applications, * Develop a front-end web application using a selected modern development environment, * Justify a choice of interaction methods and identify appropriate contexts for web applications, * Demonstrate an awareness of current industry standards, including those related to accessibility. |
| --- |

| THE BRIEF You are required to build a new application (website) for the Student Union Shop at UCLan. The requirements of this site are detailed below. A demo of what functionality is expected can be found using the [example video link](https://github.com/mbates5/webtech/blob/cd7e9aebfbada1eddd775348b36a3a5ea9b3ecef/example.mp4?raw=true).  **Design requirements:**  System requirements are often broken down into should and could sections. The 'should' criteria are the expected features which the system requires to operate. Whereas the 'could' criteria, are welcome features, and extend the application towards full functionality; These are features that will improve the system's usability, accessibility etc.  **The application should:**   1. Contains four pages (presented below, in order of complexity and challenge):    1. Home (index.html): containing a welcome message and embedded video    2. Products (products.html): allowing for interaction with all available products    3. Item (item.html): containing further information regarding THE selected product    4. Cart (cart.html): visualising the current ‘shopping cart’ (NO ‘checkout’ is required). 2. Use colours appropriately throughout the application.   *Hint: Refer to Figure 1 (below) for the permitted colour palette for application to your website, containing all accepted colour variations and RGB values.*   1. Provide a navigational menu to access all pages within the application.   *Hint: The ‘item’ page should primarily be accessed by clicking on an item from the products page. The item page should NOT appear as part of any navigation menu.*   1. Provide access to all products on the products.html page.   *Hint: Access the resources.zip folder on Blackboard for all required image assets and associated data. You will need to parse the HTML for the higher marks, although you may simply hardcode a selection of the products into your page for the lower marks.*   1. Contain a README file outlining the features which have been implemented and any resources utilised.   *Hint: You should consult online documentation, such as* [*Make a README*](https://www.makeareadme.com/) *here, to guide you on how to compose and present this document.*   1. Pass HTML and CSS validation checks.   *Hint: You should access* [*https://validator.w3.org/*](https://validator.w3.org/) *to validate your code. Code is expected to pass ALL validation checks for the highest marks.*  **The application could:**   1. Provide functionality to click on a product for more details (products.html -> item.html).   *Hint: You will need to use sessionStorage to temporarily store the item you have selected.*   1. Provide functionality to add items to the shopping cart (item.html -> cart.html).   *Hint: You will need to use localStorage to add to and remember the contents of the cart.*   1. Provide functionality to view the shopping cart, and manipulate its contents.   *Hint: On the cart view, you will need to retrieve the localStorage data and display on the screen. To display correctly, you will need to manipulate the DOM using Javascript.*   1. Present a professional looking website with no significant usability or accessibility flaws.   *Hint: Pages should benefit from evidence and application of wider reading to address usability and accessibility considerations (for example:* [*https://www.w3schools.com/html/html\_accessibility.asp*](https://www.w3schools.com/html/html_accessibility.asp)*.)*  uclan colour palette  Figure 1. Colour palette, with RGB and HEX values |
| --- |

| MARKING CRITERIA The criteria below will be used as part of your assessment, with academic judgement used to determine a grade.  **To obtain a grade of 40+ (Pass), your work must satisfy the following:**   1. **Follows brief:** Clearly demonstrates adherence to the brief, satisfying some (pass), most (50+) or all (80+) of the design requirements. The higher the standard to which requirements are satisfied, the higher the grade. 2. **Contains a homepage (index.html)**: Page is named correctly, and functions as a template for the remaining pages. All media is correctly embedded, using an ‘iFrame’ to display the video content from the assets folder. 3. **Applies HTML appropriately:** HTML is structured appropriately and follows best practice, e.g., organises content based on three core sections: header, content, footer, which are identified appropriately for styling. 4. **Applies CSS appropriately:** Styling and branding is applied consistently across all elements and pages. 5. **Includes a video demo:** A short video capture with a voice-over (e.g., OBS Studio, Teams recording) of the basic functionality for each page which you have included in your application (max. 3 minutes overall).   **To obtain a grade of 45+ (Third), in addition to the above, your work must satisfy the following:**   1. **Complete a lab demo:** As directed by your tutor; allowing you to answer questions and demonstrate any advanced functionality. Note that the absence of a lab demo will restrict the maximum grade to a ‘pass’. 2. **Contains a README file:** Outlining which pages have been implemented and any wider reading or contributions to your work. File may take any format. Students should consult online literature for guidance. 3. **Clean and commented code:**Code is clearly presented, with recognisable elements, using comments (where appropriate) to explain the (core) function of each element, and associated CSS selector applied.   **To obtain a grade of 50+ (Lower-second), in addition to the above, your work must evidence the following:**   1. **Products page:** Should (ideally) be fully functional, making use of JavaScript to present all available products, via a data object. Products (or a selection of these) may be hard coded for the lowest marks. 2. **Clear, and varied navigation:** Main navigation is clear and adapts responsively. Sub navigation used to navigate around and between all pages in the application, providing a variety of navigation options. 3. **Responsive design considerations:** The design and layout of each page should adapt to the available screen dimensions, using CSS3 media queries to target each of the following: mobile, tablet and desktop.   **To obtain a grade of 60+ (Upper-second), in addition to the above, your work must evidence the following:**   1. **Item page:** Page should be fully functional, and accessible ONLY from the embedded links within the products page (and the cart page where appropriate), making use of HTML5 APIs to set and retrieve data. 2. **Best practice for CSS:** Classes and IDs been used as appropriate to target and style all core elements. External styling (via stylesheets) is prioritised, with embedded and inline styling used only as appropriate. 3. **Mobile navigation considerations:**Pages work effectively on a mobile screen, demonstrated via mobile emulation within the browser, e.g., reformatting the primary navigation to represent a ‘hamburger menu’.   **To obtain a grade of 70+ (First), in addition to the above, your work must satisfy the following:**   1. **Contain a basic shopping cart:**The styling, structure and some functionality of the cart has been implemented. Page should adequately visualise the current contents of the appropriate ‘Session’ storage. 2. **HTML and CSS pass validation without errors:**You are expected to demonstrate this (using available W3C tool) to your tutor. Any unresolved errors should be commented upon within your README file. 3. **HTML5 semantic elements:**Include and explain (via commentary of the first instance in the code, and as part of the lab demo) the use of all HTML5 semantic mark-up, as applied throughout your application.   **To obtain a grade of 80+ (High-first), in addition to the above, your work must evidence the following:**   1. **Extended features to the shopping cart:**This could include the name and price of each item, and enabling the following functions: view the item, change the quantity of an item, remove an item, empty the basket, etc. 2. **Adoption of version control with regular quality commits:** GitHub has been explored and adopted, and application of version control has been evidenced (during the demo) and has been applied to a high standard. 3. **Represent a professional looking website with no significant usability flaws:** Submission must benefit from evidence of wider reading to address usability and accessibility considerations. Pages are expected (as a minimum) to address the usability topics covered during the module and should exhibit little to no usability flaws. For the highest marks, pages must show consideration for contemporary practice, and may work to add new features, which improve the overall ‘experience’ of using the website.   **This document will be reviewed during the lectures to ensure all students have a solid understanding of the assessment expectations.** |
| --- |

| HELP AND SUPPORT  * Support will be provided in timetabled labs. You can ask questions during labs. You may request a meeting with a tutor during their office hours (as published on Starfish). * For support with using library resources, please contact our subject librarian [subjectlibrarians@uclan.ac.uk](mailto:subjectlibrarians@uclan.ac.uk). You will find links to lots of useful resources in the My Library tab on Blackboard. * If you have not yet made the university aware of any disability, specific learning difficulty, long-term health or mental health condition, please [let us know](https://msuclanac.sharepoint.com/sites/StudentHub/SitePages/Inclusive-support.aspx). The [Inclusive Support team](mailto:inclusivesupport@uclan.ac.uk) will then contact you to discuss reasonable adjustments and support relating to this.  For more information, visit the [Inclusive Support site](https://www.uclan.ac.uk/students/support/disability_services.php). * To access mental health and wellbeing support, please complete our [online referral form.](https://msuclanac.sharepoint.com/sites/StudentHub/SitePages/Wellbeing.aspx) Alternatively, you can email [wellbeing@uclan.ac.uk](mailto:wellbeing@uclan.ac.uk), call 01772 893020 or visit [UCLan Wellbeing Service](https://www.uclan.ac.uk/students/support/wellbeing-service.php) pages for information. * If you have any other query or require further support, you can contact The Student Support Centre.  Speak with us for advice on accessing all the University services as well as the Library services. Whatever your query, our expert staff will be able to help and support you. For more information, how to contact us and our opening hours [visit Student Support Centre](https://www.uclan.ac.uk/students/library-it/library/the_i.php). * If you have any valid mitigating circumstances that mean you cannot meet an assessment submission deadline and you wish to request an extension, you will need to apply online prior to the deadline. | |
| --- | --- |
| Disclaimer: The information provided in this assessment brief is correct at time of publication. In the unlikely event that any changes are deemed necessary, they will be communicated clearly via e-mail and a new version of this assessment brief will be circulated. | Version: 1  Updated 01/10/2024 |

edited