

University of Westminster
School of Electronics and Computer Science

**5COSC026W Advanced Client Side Web Development
(2021/22)**

Module leader	Anne-Gaelle Colom
Unit	Final Coursework
Weighting:	60%
Qualifying mark	30%
Description	Web Application
Learning Outcomes Covered in this Assignment:	Assessed coursework is a highly interactive/responsive website that incorporates the features and techniques that are demonstrated by the syllabus coupled with a viva, during which the students will demonstrate a thorough knowledge of issues related to the solution (LO1 - 5).
Handed Out:	16 November 2021
Due Date	11 January 2022
Expected deliverables	One Zip Electronic file containing all necessary HTML, JS and CSS files
Method of Submission:	Electronic submission on BB via a provided link close to the submission time.
Type of Feedback and Due Date:	Written feedback and marks 14 days after submission. All marks will remain provisional until formally agreed by an Assessment Board.
BCS Criteria meeting in this assignment	2.1.1 Knowledge and understanding of facts, concepts, principles & theories 2.1.2 Use of such knowledge in modelling and design 2.1.3 Problem solving strategies 2.1.9 Knowledge of information security issues 2.2.1 Specify, design or construct computer-based systems

Assessment regulations

Refer to section 4 of the “How you study” guide for undergraduate students for a clarification of how you are assessed, penalties and late submissions, what constitutes plagiarism etc.

Penalty for Late Submission

If you submit your coursework late but within 24 hours or one working day of the specified deadline, 10 marks will be deducted from the final mark, as a penalty for late submission, except for work which obtains a mark in the range 40 – 49%, in which case the mark will be capped at the pass mark (40%). If you submit your coursework more than 24 hours or more than one working day after the specified deadline you will be given a mark of zero for the work in question unless a claim of Mitigating Circumstances has been submitted and accepted as valid.

It is recognised that on occasion, illness or a personal crisis can mean that you fail to submit a piece of work on time. In such cases you must inform the Campus Office in writing on a mitigating circumstances form, giving the reason for your late or non-submission. You must provide relevant documentary evidence with the form. This information will be reported to the relevant Assessment Board that will decide whether the mark of zero shall stand. For more detailed information regarding University Assessment Regulations, please refer to the following website:<http://www.westminster.ac.uk/study/current-students/resources/academic-regulations>

5COSC026W Advanced Client-side Web Development

Shoe shop Client-side Web Application

Set Date: 16 November 2021

Due date: 11 January 2022 1pm on Blackboard

Using clarks.co.uk as an example: Create a client-side web application that enables a user to search shoes by specifying one or more of the following criteria simultaneously:

- gender (men, women, universal)
- style (have at least three choices available, can be anything from formal, flats, heels, running, skateshoes, hightops, boots, etc)
- price (min price, max price)
- size (available sizes from 4 to 12)
- colour (have at least 4 colours available)

The form for the user to enter their search criteria should be written in HTML5 and make use of jQuery UI widgets to ensure consistency, reliability and accessibility.

The search criteria will be used to search shoes stored in a JSON format. A JSON file has been created for you to contain 2 different shoes.

Tasks:

Add an additional 5 shoes that cover a range of shoes (gender, type, price, size, colour), to allow the search to return a range of results. **(5%). You will need to incorporate your JSON data into your HTML file as we are not using a server and the browser will detect a security threat otherwise.**

Make use of jQuery UI widgets on your form to enhance ALL your form elements. **(10%)**

Display the shoes that correspond to the search made by the user on the search page. 10% for search functionality – 10% for displaying the results in an effective and pleasant way (picture, short description, price) **(20%)**
(Note that if you cannot get the search functionality working, still provide a list of shoes in an effective and pleasant way to be able to get the marks associated with the layout and display of these results).

Each shoe listed on the result page should have a link that allows the user to visit the corresponding shoe page.

The shoe page should contain a large image, thumbnail images, and a short description of the shoe (gender, type, price, available sizes, colours).

Using your own code or a plugin of your choice, add the facility to view the large version of each of the shoe images while remaining on the same page. **(10%)** You should have at least 5 pictures for each shoe.

Using jQuery UI tabs, display the shoe long description (product details on Clarks Website), the size guide, and delivery and return details (The size guide and the delivery and return tab contents can be the same for all shoes) **(10%)**

Add the facility to save the shoe to your favourite list of shoes on the page and in the browser local storage by dragging the shoe to a favourites list on the side(5%) **AND** by pressing a “favourite” button or icon(5%). (10% to ensure each shoe can only be added once. 5% otherwise). **(10%)**

The user should also be able to remove a shoe from the favourite list which will also remove it from the browser local storage (by dragging it out of the list (5%) as well as by pressing a delete button(3%)) and clear the favourite list (2%). **(10%)**

Add the facility to display your favourite list of shoes on the search page by reading the data from the browser local storage. **(5%)**

Make your search and results page(s) and your shoe details page responsive by changing the layout on smaller devices, **using media queries**. If you are using a framework such as Bootstrap, make sure that you add enough media queries on top of those provided by the frameworks. You are required to have two layouts (defined by your hand-written media query): large screen and smaller than iPad landscape width for at least the search page (3%), the results page/section (3%) and the shoe details (4%) **(10%)**

Please note that if you are displaying your results in the same page as the search form, simply make sure your media queries address the form section as well as the results section.

Pay attention to aesthetics, as described below: **(5%)**

- the inclusion of visual clues based on groupings; related items or links are grouped together while unrelated items are separated.
- use of headings and subheadings to allow visual scanning of content.
- use of headings, subheadings, font sizes, bold fonts and italic fonts in proportion to the importance of the item.
- alignment of elements on a page so that they are all visually connected; size all elements on the page to create balance and unity; nothing should look out of place unless you have a specific reason for the effect.
- choose a font style that supports the site atmosphere and stick to it; limit styles to 2 at the most.
- use images and photos for visual appeal and to communicate ideas.
- use one set of design elements across your website.

- direct the user's attention to the important information
- harmony and balance

Ensure your site is protected against client-side hacking through the use of CSP, html encoding, etc. **(5%)**

Clarification: You should have a total of 7 shoes. You can also have the same shoe in different colours which will count as separate shoes.

You are not permitted to use templates. You are not permitted to use any server-side solution. Your solution must work in a browser without the use of a server, and this is how it will be tested. You may however specify which browser to use to test the solution if the solution works better/looks better in a particular browser.

Ensure good coding standard is used throughout through good comments, appropriate indentation and correctness. **Up to 10 marks will be deducted** for lack of comments and incorrectness. Ensure to use the W3C HTML validator and CSS Lint.

Notes:

This is individual work – do not collaborate.

You may choose a different product (instead of shoes), but you must stick to the same specification and JSON data structure (one of the data must be an array). You must seek prior approval for a product change and present your JSON data structure before proceeding.