

**University of Westminster**  
School of Electronics and Computer Science

**5COSC026W Advanced Client-Side Web Development  
2023/24)**

Module leader	Ebad Majeed
Unit	Final Coursework
Weighting:	60%
Qualifying mark	30%
Description	Mobile 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:	<b>18<sup>th</sup> November 2022</b>
Due Date	<b>10<sup>th</sup> January 2023</b>
Expected deliverables	One Zip Electronic file containing all necessary HTML, JS and CSS files
Method of Submission:	<b>Electronic submission on BB via a provided link close to the submission time.</b>
Type of Feedback and Due Date:	Verbal feedback and marks on the viva date, up to 1 week 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**

## **Final Coursework**

### **Estate Agent Client-side Web Application**

**Set Date: 18<sup>th</sup> November 2022**

**Due date: 10<sup>th</sup> January 2023 1pm on Blackboard,**  
**Viva date TBC**

**Using rightmove.co.uk as an example:** Create a client-side web application that enables a user to search properties by:

- type (house, flat, any),
- price (min price, max price)
- bedrooms (min bedroom, max bedroom)
- date added (after specified date or between two given dates)
- postcode area (1<sup>st</sup> part of the postcode, e.g. BR1, NW1)

The form for the user to enter their search criteria should be written in HTML5 and make use of React JS UI components/lifecycles, libraries/widgets to ensure consistency, reliability, and accessibility.

The search criteria will be used to search properties in a JSON format. A JSON file has been created for you to contain 2 properties. You will add an additional 5 properties to cover a range of properties (type, price, number of bedrooms and date added, postcode area), 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 React Widgets on your form to enhance ALL your form elements. (10%)

Display the properties that correspond to the search made by the user on the search page. 10% for search functionality – 10% for the displaying the results in an effective and pleasant way (picture, short description, price) (20%)

**Note:**

- **the search should work for searching using any number of criteria (i.e. 1 criteria only, 2 simultaneous criteria, 3, 4 or all 5)**
- **if you cannot get the search functionality working, still provide a list of properties in an effective and pleasant way to be able to get the marks associated with the layout and display of these results.**

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

The property page should contain a large image, thumbnail images, and a short description of the property (property type, price, location). Using your

own code or a plugin of your choice, add the facility to view all the property images. **(10%)** You should have 6 to 8 pictures for each property.

Using react tabs, display the property long description, the floor plan and the google map. **(10%)**

Add the facility to save the property to your favourite list of properties by dragging the property to a favourites list on the side(5) **AND** by pressing a “favourite” button or icon(5). (10% to ensure each property can only be added once. 5% otherwise). **(10%)**

The user should also be able to remove a property from the favourite list (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 property list on the search page. **(5%)**

Make your search page and your results page responsive by changing the layout on smaller devices, **using hand-written media queries as well as flex or grid layout**. If you are using a framework such as Bootstrap, then you might not need to use the media queries, but you should be able to tell how it is being implemented if asked during viva. You are required to have two layouts (defined by your hand-written media query or bootstrap): large screen and smaller than iPad landscape width for at least the search page with the results, so covering the form section as well as the results section (4) and the individual property details (4). You will get another 2 marks for your solution justification **(10%)**

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 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 properties.

**You are not permitted to use existing 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 but try to achieve consistency across multiple browsers.

Ensure good coding standard is used throughout using good comments, appropriate indentation, and correctness. **Up to 10 marks will be deducted** for lack of comments and incorrectness. Ensure to use any standards that are better for proposed work but do not use a readymade solution for this.

Notes:

All work must be demonstrated in the viva where you will receive feedback and an indicative mark. **The viva is part of the coursework so it is obligatory.**

**Work marked without a viva shall receive between 0-30% maximum.**  
**This is individual work – do not collaborate.**