

WSUK – National Finals Competition Web Development

2024

MODULE B FRONTEND DEVELOPMENT

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Introduction

In this module, you are required to develop a web page following a set of client requirements. You can write your solution using front-end technologies, namely HTML, CSS and JavaScript. You can also use any of the provided frameworks, should you wish.

*The test project can be completed without using any framework; it is your decision whether you use one. If you do use any of the frameworks, the submitted solution **must be functional as-is**; **no attempts will be made by the judges to fix or manipulate the code in any way.***

If specific steps are required for initialising your project, please make sure that you are including a read.me file with the basic initialisation information.

*Please put your files in **XX_module_b** where XX is your station number.*

You have three (3) hours to complete this task. You need to submit it before time runs out. No additional time will be given for submission.

Requirements

WorldSkills is a global charity dedicated to promoting excellence in technical, vocational, and general education through its renowned biennial competitions, often called the "Skills Olympics". WorldSkills brings together experts, competitors, industry leaders, and visitors from around the world to celebrate and elevate standards across all educational fields, fostering a skilled and adaptable workforce for the future.

This year, France hosted several major events, including:

- Olympic Games Paris 2024
- 2024 Summer Paralympics
- WorldSkills Lyon 2024

These events welcomed thousands of spectators and generated a huge buzz across the country. Inspired by all three, WorldSkills hope to carry on that excitement into its future events. Following the success of *WorldSkills Lyon 2024*, WorldSkills is now preparing for its next edition: **WorldSkills Shanghai 2026**.

To put the spotlight on competitors, they want to present the results of each skills competition in an interactive way on a web page they can promote via news outlets and social media platforms. You have been approached to develop this web page on their behalf.

For this stage, WorldSkills would like to see, at minimum, the following main elements:

- Header
- Footer
- Awards table

However, you are required to add additional elements that enhance your design (e.g. styles and images).

The design should be responsive, adapting seamlessly to a variety of screen sizes and media devices, ensuring usability and aesthetic appeal on both desktop and mobile platforms. Specifically, the mobile layout should be optimized for screens with a width of 650px or less. This means that elements should reorganize, resize, or restyle to maintain clarity, accessibility, and functionality without requiring users to zoom or scroll horizontally.

★ **Header**

The header should contain content that both identifies the page and also draws attention to it. The design should be appealing and coherent with WorldSkills branding.

At a minimum, you must use the text content provided in <media/elements/header.html>.

You are free to add additional content to enhance your design. You can also use different elements (tags), as long as the text content remains as-is.

★ **Footer**

The footer should be minimal and include some basic copyright information.

At a minimum, you must use the text content provided in <media/elements/footer.html>.

You are free to add additional content to enhance your design. You can also use different elements (tags), as long as the text content remains as-is.

★ **Award Table**

Competitor results must be displayed in a table. The results displayed are for the following awards:

- *Gold* medals;
- *Silver* medals;
- *Bronze* medals; and
- *Medallion for Excellence (MfE)* medals.

The table must have the following columns:

- **Rank:** The position (order) in which the member country or region placed, based on their total number of awards.
- **Member:** The name of the member country or region.
- **Gold:** The total number of *Gold* medals for this member country or region.
- **Silver:** The total number of *Silver* medals for this member country or region.
- **Bronze:** The total number of *Bronze* medals for this member country or region.
- **MfE:** The total number of *Medallion for Excellence (MfE)* medals for this member country or region.
- **Total:** The total number of all medals combined for this member country or region.

For example:

Rank	Member	Gold	Silver	Bronze	MfE	Total
1	Korea	5	2	1	9	17
2	Chinese Taipei	3	1	1	4	9
3	Brazil	1	1	0	3	5

The columns can contain images if you think they enhance the design. However, each column must contain sensible text, such that it is clear what each column represents.

Any column values not in the raw data must be calculated by you.

★ Data

Some dummy competitor results data is provided in the following ways:

1. an API (**preferred**); and
2. a [JSON file](#) (**back-up**).

You should aim to make requests to, and handle responses from, the API. This will ensure your work is closer to a finished project when presented to WorldSkills. Use the provided [API documentation](#) is provided for you to get started. Additionally, include a **reload function** to allow users to refresh data manually, ensuring consistent and up-to-date information.

However, if you cannot fetch data from the API, you should import data from the provided [JSON file](#) directly.

★ Sorting

The awards table should support sorting by any of the following columns, in both **ascending** and **descending** order:

- **Member**
- **Gold**
- **Silver**
- **Bronze**
- **MfE**
- **Total**

Default Sorting

- **Initial Load:** On initial load, results should be displayed in ascending order based on the "Total" column, with no indicator shown for this default sorting.

User-Initiated Sorting

- **Single-Column Sorting:** Sorting is limited to one column at a time. Users can toggle sorting for each column individually, without multi-column sorting.
- **Toggle Functionality:** Clicking a column header should cycle through ascending, descending, and (if implemented) reset to the default unsorted state.
- **Reset Option:** A reset option should be available to return the table to the default sort order by "Total" in ascending order, after any sorting changes.

Visual Indicators

- **Active Sort Indicator:** When a user selects a sorting option, a clear visual indicator (such as an arrow or highlight) should display on the active column header, showing the sorting direction (ascending or descending).
- **Sorting Control Visibility:** The sorting controls must be visible and intuitive, with clear visual cues for users to understand the current sorting state.

No Data State

- **Disabled Sorting:** If there is no data in the table (e.g., due to a failed load or empty result), sorting controls should be disabled to avoid unnecessary user actions.

★ Searching

The awards table should include a robust search functionality to filter results dynamically based on user input. The search input must allow users to filter the list by matching each row's member country or region name to the entered search term, with any non-matching rows hidden.

Key requirements include:

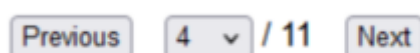
- **Default State:** The search input should start empty, displaying all results.
- **Dynamic Updates:** Upon entering a search term, the awards table should refresh immediately to show filtered results without requiring a full page reload.
- **Case-Insensitive and Partial Matches:** Supports case-insensitive and partial matches across multiple words. For example, typing 'Uni' would match 'United Kingdom' and 'United Arab Emirates' as well as 'United States'.
- **Clear and Reset Option:** Users should have an option to clear the search input quickly, restoring the full list.
- **No Results Handling:** If no results match the search term, a message should be displayed to inform the user.
- **Responsive Design:** The search input should be accessible and easy to use on both mobile and desktop layouts.
- **Efficiency:** Ensure minimal delay in filtering to maintain a smooth user experience.

★ Pagination

You should provide pagination options to allow users to control what results they can see. Namely, you should provide:

- Page selector
- Total page count
- 'Next page' button
- 'Previous page' button

For example:



The awards table should display a maximum of 10 results per page by default, with additional entries segmented into multiple pages. To enable user control over pagination, include:

- **Page Selector:** A numeric input allowing users to jump to specific pages. On blur (when focus leaves the input), the table should refresh to display the selected page's results.
- **Total Page Count:** Display the total number of pages next to the page selector, indicating the total results available.
- **Next and Previous Buttons:** Standard buttons to navigate forward or backward through pages. Disable the "Next" button on the last page and the "Previous" button on the first page.

All pagination controls should prioritise functionality, with clear, accessible text labels for each element. Pagination must be responsive and functioning smoothly on both desktop and mobile layouts. You can add additional styling but your focus should be on functionality.

If fetching data from the API, pagination will be handled automatically. However, if using the [JSON file](#) as a backup, you must implement pagination logic manually.

★ Loading

When data is being fetched or read, show a loader to let users know that something is happening.

When the loader is shown, interactive elements, such as the sorting options and pagination controls, must be disabled.

You should use an animation to indicate progress.

If you imported data from the provided [JSON file](#), you must simulate a delay between 0.25 and 3 seconds.

If you fetch data from the API, you do not need to simulate a delay; there should already be a delay while the request is being fulfilled.

Media Files

Media files are provided in the [media](#) directory. These include:

- Images
- HTML
- [API documentation](#)
- [JSON file](#)

You are free to modify images to suit your design. When using elements from [media/elements](#), you can also modify the elements (tags). However, you must not modify the text content contained within those elements (tags), e.g., '**WorldSkills Shanghai 2026 | 世界技能大赛**'.

You must not modify the [JSON file](#).

General Guidance

Copy content from the provided files in [media/elements](#) to quickly get started with your HTML mark-up.

Task Submission

Archive your project using native archive software on Windows or 7ZIP, naming the archive with your station number and module letter (e.g., *XX_module_b.zip*). You need to submit it before the time runs out. No additional time will be given for submission.

If specific steps are required for initialising your project, please make sure that you are including a read.me file with the basic initialisation information.

Marking Scheme Summary

SECTION	CRITERIA	JUDGEMENTS MARKS	MEASUREMENTS MARKS	TOTAL
B1	User Interface & Design	2	3	5
B2	Responsiveness	1	1	2
B3	Accessibility	0	3	3
B4	Data loading and display	0	4	4
B5	Search and filtering	0	5	5
B6	Pagination	0	4	4
B7	Sorting	0	4	4
B8	Maintainability	1	2	3
TOTAL ALLOCATE MARKS				30