WorldSkills UK

Web Development

2026 Pre-Competition Activity

Contact Information

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PRE-COMPETITION ACTIVITY

Alongside the marking guidelines and other materials detailed in this document, competitors are advised to get ready for the competitions by utilising the example assessments given below. The tasks included in the pre-competition activities, drawn from past competitions, are intended to demonstrate the kinds of tasks and skills that will be expected from participants along with the 2024-2025 WSUK National Competition test projects and solutions.

Sample Assessments and Training Resources

Example assessments for each module can be accessed and downloaded from the resource repository provided below. Additionally, a variety of training materials, expert guidance, and examples of student work are being added to assist participants in preparing for this year's competition. [Sample Test Projects](https://github.com/worldskillsuk/national-resources) (https://github.com/worldskillsuk/national-resources)

Entry Stage (Stage 1) - What to expect

Shortly after registration closes, competitors will receive details of this year's online Entry Stage assessment. This stage is completed online and will test knowledge of:

- Web technologies and browsers
- File types
- Core **HTML**, **CSS**, **JavaScript**, **PHP**, and **SQL**
- Accessibility

The assessment may be taken once only and is delivered as an online assessment, lasting 1 hour and consisting of 45 questions.

Note: *Following the Entry Stage assessment, only the* **top three highest-scoring competitors per organisation** *will be permitted to progress to the National Qualifier (Stage 2), regardless of the total number of entrants from that organisation.*

National Qualifier (Stage 2) - What to expect

For the National Qualifier, competitors will be required to put their coding skills to the test.
A brief/specification, mock-up, assets (such as images and logos), and text for a sample website or web application or a series of problem-solving tasks will be provided. You will use your practical skills in HTML, CSS, JavaScript and/or PHP, and SQL to build a functioning solution that meets the required design and expected behaviours.

Depending on the task brief, you may also be expected to demonstrate basic data handling, such as working with structured content, consuming data from a simple source (for example, an API), or applying light server-side logic where appropriate.

This task will take place under supervised conditions on a remote assessment platform. You will have 3 hours to complete the assessment, with full instructions provided at the start of the stage.

National Finals (Stage 3) - What to expect

The National Finals are designed to challenge your skills and test your abilities. This competition will assess all core competencies through four modules conducted over two days. Participants are required to compete in person at the host venue, providing a hands-on and interactive experience.

Module A - Design Implementation

You will develop a working website or web application based on a provided specification using HTML, CSS, and JavaScript. Given a brief, assets, and content, you are expected to implement the design accurately, aiming for pixel-perfect visual fidelity.

Assessment focuses on best practice, accessibility, and high-quality front-end implementation, including responsive/adaptive design and effective use of CSS layout and styling. Front-end frameworks are permitted but not required, as the task can be completed using vanilla CSS and JavaScript.

Assessment Duration: 3–4 hours
Internet Access: None

Module B -Back-end Development

You will be required to develop a website or web application with server-side functionality. This module focuses on implementing core back-end features such as authentication and authorisation, database integration, and secure handling of user input and application data.

Typical requirements include building a login system, managing user sessions, and controlling access to protected areas of the application based on user roles or permissions. You will be expected to interact with a database to create, read, update, and delete data (CRUD), and to implement structured server-side logic that supports the required application behaviour.

Solutions must be implemented using one of the permitted back-end technologies: PHP or JavaScript (Node.js). Competitors may choose to use appropriate frameworks to support development, such as Laravel for PHP or Node.js with Express for JavaScript, where this aligns with the task brief and demonstrates clear structure and best practice.

Assessment Duration: 3/4 hours
Internet Access: None

Module C - Front-end Development

You will be required to implement a front-end solution to a set of defined tasks using JavaScript, with a focus on interactive and data-driven functionality.

Typical tasks may include adding interactivity through events and DOM manipulation, debugging and correcting existing code, and working with structured data. This may involve retrieving, processing, and displaying data from a provided source, such as an API, and updating content dynamically based on user interaction. Clear project structure and appropriate code documentation are also assessed.

While the test project can be completed using vanilla JavaScript, competitors may choose to use front-end libraries or frameworks where appropriate, such as React, Vue, Svelte or similar, provided their use supports clarity, maintainability, and aligns with the task brief.

Assessment Duration: 3/4 hours
Internet Access: None

Module D - Problem-solving

You will be required to complete a series of short, self-contained problem-solving tasks, grouped by their approximate completion time.

Tasks will vary in complexity and are designed to assess your ability to analyse requirements, apply correct technical solutions, and manage your time effectively. The focus is on accuracy, logical thinking, and efficient implementation rather than on full application development.

- Easy / 5 min
- Medium / 5–15 min
- Complex / 15-30 min

This module assesses organisation, time management, and problem-solving under pressure.

Assessment Duration: 3–4 hours
 Internet Access: None

WEB DEVELOPMENT TOOLS AND RESOURCES

A list of commonly used software, applications, libraries, and frameworks approved for use in WorldSkills web development competitions is provided below for reference. Not all tools listed are required. Competitors are encouraged to select the applications and technologies that best suit their preferred workflow and the specific requirements of the task brief.

While professional web development makes use of a wide range of programming languages and technology stacks, this competition focuses on **PHP and/or JavaScript** for back-end development, alongside standard front-end technologies. These technologies have been selected due to their wide industry adoption, strong documentation, and suitability for consistent and fair assessment across all competitors. Other back-end languages such as **Java, Python, C#, Ruby, or Go** are commonly used in industry and remain relevant within the wider web development landscape, but they are not assessed within the scope of this competition.

As part of preparation, competitors are encouraged to **commit to and practise with at least one front-end framework** (for example Bootstrap, Tailwind CSS, React, or Vue) and to develop confidence working with **SQL databases**. Depth of understanding and fluency with a chosen framework and database approach is more valuable than superficial familiarity with many tools. Being able to work efficiently with a known stack under time pressure is a key advantage in a competition environment.

The tools and learning resources listed in this section — including development environments, frameworks, documentation platforms, and training links — are provided to support effective preparation. Competitors are strongly encouraged to make full use of these resources, particularly offline documentation, sample projects, and practice tasks, to simulate competition conditions as closely as possible. Familiarity with the approved tool set, combined with regular hands-on practice, will significantly improve confidence, efficiency, and overall performance.

Note: *Although some design tools are listed below as examples, they are **not part of this competition**. All design and layout elements must be implemented directly through code. Competitors are therefore expected to build, adapt, and refine visual design during development rather than relying on external design software.*

R = Recommended

M = Must

Code Editors (IDEs)		
Tool	**Available Platform/Purpose**	**Licence Type**
Visual Studio Code (R[1])	Win/macOS/Linux	Free
PhpStorm (R[2])	Win/macOS/Linux	Free (EDU Licence)
WebStorm	Win/macOS/Linux	Free (EDU Licence)
Design Tools		
Figma (R[1])	Win/macOS	Free (3 Collaborative)
Lunacy (R[2])	Win/macOS/Linux	Free
Axure (Prototyping)	Win/macOS	Free (EDU Licence)
Database Tools		
MySQL (R)	Win/macOS/Linux (Part of localhosts as well)	Free
PostgreSQL	Win/macOS/Linux	Free
Cross-platform web servers (localhosts)		
AMPPS (R[1])	Win/macOS	Free (No automatic updates)
XAMPP (R[2])	Win/macOS/Linux	Free
WampServer	Win	Free
Version Control		
GitHub (R)	Win/macOS/Linux	Free + (EDU Licence)
GitLab	Win/macOS/Linux	Free
Frameworks and Libraries		
Bootstrap	CSS/JS	Free
TailwindCSS	CSS	Free
Font Awesome	Icons	Free
Google Fonts	Icons	Free
React	JS	Free

Vue.js	JS	Free
Laravel	PHP	Free
Node.js	JS	Free
NPM	Library & Package Manager	Free - Part of Node.js
Browsers and plugins		
Chrome	Win/macOS/Linux	Free
Mozilla	Win/macOS/Linux	Free
Edge	Win/macOS/Linux	Free
AXE DevTools (R)	Chrome/Mozilla/Edge	Free
WCAG ContrastChecker(R)	Chrome/Mozilla/Edge	Free
Web Developer (R)	Chrome/Mozilla/Edge	Free
WAVE Accessibility	Chrome/Mozilla/Edge	Free
Learning material and additional resource		
DevDocs (M)	*Official Documentations used in competition*	Free
Laracast	Laravel Learning	Free
CodeWars	Peer Skill Development	Free
CodeAcademy	Interactive Courses	Paid (Discount for Students)
freeCodeCamp	Interactive Courses	Free
SoloLearn	Interactive Courses	Paid
HappyCoding	Interactive Courses	Free

For more detailed technical information, including assessment scope and technology guidance, please refer to the official ***Web Development Technical Handbook***, available at:
https://www.worldskillsuk.org/competitions/web-development