

WORLD SKILLS SINGAPORE 2027
TECHNICAL DESCRIPTION
WEB TECHNOLOGIES



Skills Competition

1. This competition covers a broad range of technical skills as well as disciplines and their application in the development and maintenance of overall Web Technologies.
2. It involves analysing business requirements and objectives, converting them into detailed specifications, and implementing effective web solutions
3. Conducted as an individual event, competitors are given 18 hours over 3 days to complete the Test Projects for this competition.

Scope of Work

4. Competitors must be able to demonstrate competencies in the following areas:
 - 4.1. Work organization and management
 - 4.2. Communication and interpersonal skills
 - 4.3. Design implementation
 - 4.4. Front-end development
 - 4.5. Back-end development

Assessment

5. Competitors will be assessed based on measurement (objective) and judgement (subjective) marking / measurement marking only.
6. The assessment criteria and relative weighting of marks are as follows:

Criterion		Marks
A	Work organization and management	5.00
B	Communication and interpersonal skills	5.00
C	Design implementation	25.00
D	Front-end development	25.00
E	Back-end development	40.00
Total		100

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Major Tools & Materials

7. The following tools and materials will be used in the competition:
 - 7.1. World Wide Web Consortium for HTML and CSS
 - 7.2. Javascript
 - 7.3. Open Source server side Libraries and Frameworks
 - 7.4. MySQL
 - 7.5. FTP server and client relationships and software packages
 - 7.6. Software design pattern
 - 7.7. Web application security
8. For the software required, please view the complete list in ***Annex A: WorldSkills Singapore 2027 – Software List.***

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Annex A: WorldSkills Singapore 2027- Software List

(A) Competitor/Marking Station

S/N	Software Title	Version & Details	Extensions / Dependencies
1	Visual Studio Code [user version]	V1.132	Emmet, ftp-sync, livereload, babel, PHP tools, laravel-blade, sass, eslint, vetur, vim, auto Rename Tag, Laravel extra intellisense, CSS intellisense, PHP Intelephense
2	PHPStorm	v2026.2	Live edit, Composer
3	Composer	V2.10.2	PHP Storm, Laravel, WordPress
4	NodeJS (with npm 10.8.2)	V24.19.0 LTS	npm 10.8.2, VueJS, ReactJS
5	CodeIgniter	V4.7.4	PHP Storm, Composer
6	Laravel	V13.24.0	PHP Storm, Composer, NodeJS
7	VueJS and CLI (@vue/cli)	VueJS: V3.5.41 @vue/cli: V5.0.9 Vue-router: V5.2.0 Axios: V1.19.0 Vuex: V4.1.0 Pinia: V4.0.1 Vue-devtools: V7.7	NodeJS, Vue-router, Axios, Vuex, Vue-devtools
8	ReactJS with ReactDOM	V19.2.8	NodeJS, ReactDOM
9	Bootstrap	V5.3.8	jQuery, Popper.js
10	jQuery	V4.0.0	Bootstrap, WordPress
11	Popper.js	V2.11.8 LTS	Bootstrap
12	Chart.js	V4.5.1	NodeJS
13	Next.js	V16.3	
14	Vite	V8.2.1	

The organisers reserve the right to update the Technical Description whenever necessary

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(B) Web Server (VM)

Domain Name: ws.org

S/N	Software Title	Version & Details
1	Ubuntu OS	V26.04
2	Apache 2	V2.4.68
3	PHP	V8.5.9
4	MariaDB	V12.3.2 LTS
5	Adminer	V5.5.1
6	PhpMyAdmin	V5.2.3

(C) Virtual Machine (VM) Specification (One VM per competitor)

Processor: 1 vCPU

Memory: 2 GB

Virtual HDD: 35 GB