WORLDSKILLS SINGAPORE 2027
TECHNICAL DESCRIPTION
SOFTWARE TESTING

Skill Competition

1. This competition covers software testing skills using various testing technologies and methods to verify that the functionality, reliability, security, ease of use, robustness, and portability of the software meet requirements, to find defects or errors in the software, and to ensure the quality of the software product.

2. Conducted as an individual event, competitors are given 12 hours over 2 days to complete the Test Projects for this competition.

Scope of Work

3. Competitors must be able to demonstrate competencies in the following areas:

Technical skills

3.1. Writing test plans based on documented requirements
3.2. Designing test cases
3.3. Selecting test tools
3.4. Executing manual and automated tests
3.5. Identifying and report bugs
3.6. Writing test reports

Analytical ability

3.7. Solving problems
3.8. Analyzing data
3.9. Prioritizing issues

Communication

3.10. Collaborating with developers and users
3.11. Reporting findings clearly

Documentation

3.12. Writing and maintaining accurate test reports and records

Knowledge of SDLC and QA methods

3.13. Applying industry standards
3.14. Understanding software development processes.

Professionalism

3.15. Adapting to new technologies
3.16. Maintaining high standards

Technical Support

4. Training will be provided on the competition machine (maximum 1 working day) prior to the competition. Technicians will be on site to familiarize competitors with the machine's functions and processes. Competitors not familiar with the competition machines are encouraged to attend the training to ensure smooth system operation, avoid procedural penalties, and prevent configuration errors.

Assessment

5. Competitors will be assessed based on measurement (objective) and judgement (subjective) marking.

6. The assessment criteria and relative weighting of marks are as follows:

Criterion		Marks
A	Module A: Functional Testing (4)	30
B	Module B: Performance Testing (4)	30
C	Module C: Interface Testing (4)	40
	Total	**100**

Major Tools & Materials

7. The following tools and materials will be used in the competition:

7.1. Equipment / Hardware

a) Server
- CPU: Xeon / EPYC or more
- RAM: 64GB or more
- Disk: SSD 2TB or more
- OS: Windows Server 2022

b) Workstations
- CPU: Core i7/ Ryzen 7 or more
- RAM: 32GB or more
- GPU: RTX 4060 or more
- Disk: SSD 1TB or more
- Monitor: 2x27" monitors
- OS: Windows 11

7.2. Software

a) Microsoft Windows 11 Pro
b) Microsoft Office 2024
c) Google Chrome for Testing (with ChromeDriver)
d) VMware Workstation Pro
e) JMeter
f) Node.js with npm
g) Postman (with Newman CLI)
h) Open JDK
i) PyCharm Community Edition
j) Anaconda
k) Python
l) Pytest
m) Selenium
n) Appium (with Appium-Python-Client)
o) Android Studio
p) Allure (with allure-pytest and CLI)
q) Git
r) Notepad 3
s) Eclipse