



Australian Government

ICTPRG525 Build Java applets

Release: 1

ICTPRG525 Build Java applets

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to compile and run an applet that executes in Java-enabled browsers, and interacts with users.

It applies to individuals involved in software, web or games development and who are required to build applets, using Java that interacts with users via a browser.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Programming and software development

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Create Java source file	1.1 Create a file with a text editor 1.2 Create a sub-class of the class Java.applet. 1.3 Ensure that applet sub-class implements at least one of the following methods: init and paint 1.4 Define classes that contain instance variables, methods and local variables 1.5 Ensure that the init method initialises instance variables, and constructs any graphical interface used in the applet sub-class 1.6 Implement the paint and update methods to manage output that is drawn in the applet window

ELEMENT	PERFORMANCE CRITERIA
	1.7 Incorporate event handling methods 1.8 Implement the code that allows a user to enter values, and assigns these values to variables 1.9 Use available graphical user interface (GUI) components to allow user interaction with the applet 1.10 Specify and load images and sounds 1.11 Include comments to describe the behaviour of the applet
2. Compile a source file	2.1 Use a Java compiler to compile the file 2.2 Correct errors detected by the compiler 2.3 Confirm basic correctness of the file, to ensure that all variables have been initialised 2.4 Ensure the compiler creates a class file, and that the class is interpreted correctly
3. Run applet	3.1 Create and name a hypertext markup language (HTML) file, and add APPLET tag 3.2 Write the applet class file to match the HTML document that contains an APPLET tag 3.3 Confirm that the applet loads and executes correctly 3.4 Identify and correct run-time errors 3.5 Identify and correct logic errors 3.6 Ensure that the appearance of the applet window renders it accessible and intuitive for the user, and that its design complies with organisational standards 3.7 Ensure that user interaction is implemented efficiently and effectively

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	2.2, 3.4, 3.5	Recognises and interprets complex information

Writing	1.1, 3.1	Develops material for a specific audience, using clear and detailed language
Get the work done	1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 1.10, 2.1, 2.3, 2.4, 3.3, 3.4, 3.4, 3.6, 3.7	- Takes responsibility for planning, sequencing and prioritising tasks to achieve the required outcomes - Uses a range of digital tools and sophisticated techniques to meet the desired outcomes - Identifies technical or conceptual issues, and applies analytical processes, to resolve these issues

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTPRG525 Build Java applets	ICAPRG525A Build Java applets	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>

Assessment Requirements for ICTPRG525 Build Java applets

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Performance Evidence

Evidence of the ability to:

- review the requirements to provide an applet that executes in Java-enabled browsers, and allows users to customise the applet's operation
- write, compile and run an applet that accepts user input, and generates a response based on the input.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- explain object-oriented programming concepts
- outline the theoretical concepts of Java programming
- recognise, and describe, the Australian Computer Society Code of Ethics
- identify the sources of browser security restrictions.

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances must be typical of those experienced in the programming and software development industry, and include access to:

- the Java development environment
- a Java compiler and interpreter
- a Java-enabled web browser
- the appropriate learning and assessment support.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

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