



Australian Government

Department of Education, Employment and Workplace Relations

ICAB4163B Create a common gateway interface script

Release: 1

ICAB4163B Create a common gateway interface script

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit defines the competency required to define and produce common gateway interface (CGI) script and install that script on a server. No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.
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Application of the Unit

Application of the unit	
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Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units		
	ICAU2006B	Operate computing packages

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Define specification for CGI script	1.1. Determine the functionality of the CGI form 1.2. Define the functionality of the CGI script 1.3. Choose the appropriate language in which to write the CGI script 1.4. Determine server requirements
2. Create CGI form	2.1. Produce an HTML web document that uses the form elements required by the CGI script specification and includes the URL for the CGI script
3. Write CGI script	3.1. Write the CGI script to function as required by the CGI script specification
4. Test CGI script	4.1. Configure the server, if required, that will host the CGI script 4.2. Upload the CGI script to the server 4.3. Run the CGI form and assess its output 4.4. Reiterate until the specification for the CGI script is met

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- HTML
- Basic operating system commands
- Using FTP clients

Required knowledge

- Appropriate language for scripting
- Security issues
- Web servers
- CGI 1.1/1.2 specifications
- Security issues surrounding CGI
- Copyright and intellectual property
- Copyleft and Free Software Foundation

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of the following is essential:

- Assessment must confirm the ability to create and upload scripts.

To demonstrate competency in this unit the person will require access to:

- Web servers
- E-business website
- FTP or file transfer client software
- Server access

Context of and specific resources for assessment

CGI scripts are a common means of interacting with websites, providing security access to directories and databases.

Internet access to server CGI scripts provides a powerful means to control a wide variety of operations on the server.

The breadth, depth and complexity of knowledge and skills in this competency would cover a broad range of varied activities or application in a wider variety of contexts most of which are complex and non-routine. Leadership and guidance would be involved when organising activities of self and others as well as contributing to technical solutions of a non-routine or contingency nature.

Assessment must ensure:

- Performance of a broad range of skilled applications including the requirement to evaluate and analyse current practices, develop new criteria and procedures for performing current practices and

EVIDENCE GUIDE	
	provision of some leadership and guidance to others in the application and planning of the skills would be characteristic. • Applications may involve responsibility for, and limited organisation of, others. The scope and complexity of knowledge and skills is dependent on the tasks undertaken as part of creating the code to specification. Interpret available information and request clarification where needed and take responsibility for outputs in work and learning.
Method of assessment	The purpose of this unit is to define the standard of performance to be achieved in the workplace. In undertaking training and assessment activities related to this unit, consideration should be given to the implementation of appropriate diversity and accessibility practices in order to accommodate people who may have special needs. Additional guidance on these and related matters is provided in ICA05 Section 1. • Competency in this unit should be assessed using summative assessment to ensure consistency of performance in a range of contexts. This unit can be assessed either in the workplace or in a simulated environment. However, simulated activities must closely reflect the workplace to enable full demonstration of competency. • Assessment will usually include observation of real or simulated work processes and procedures and/or performance in a project context as well as questioning on underpinning knowledge and skills. The questioning of team members, supervisors, subordinates, peers and clients where appropriate may provide valuable input to the assessment process. The interdependence of units for assessment purposes may vary with the particular project or scenario.
Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

EVIDENCE GUIDE

	An individual demonstrating this competency would be able to: • Demonstrate understanding of a broad knowledge base incorporating some theoretical concepts • Apply solutions to a defined range of unpredictable problems • Identify and apply skill and knowledge areas to a wide variety of contexts, with depth in some areas • Identify, analyse and evaluate information from a variety of sources • Take responsibility for own outputs in relation to specified quality standards • Take limited responsibility for the quantity and quality of the output of others • Demonstrate CGI language coding skills • Maintain knowledge of industry products and services
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Range Statement**RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Language for CGI may include:	• C/C++ • PERL • Visual Basic • AppleScript • Python • Shell
Server requirements may include but is not limited to:	• Secure shell access • Telnet to a server or Telnet-only access on another server • ability to FTP documents to a server

RANGE STATEMENT	
	• VPN • remote desktop
Server - one or more servers depending on size and functionality of website and may include:	• BEA Weblogic servers • Apache HTTP server • IBM VisualAge and WebSphere • Microsoft-Internet-Information-Server • NetDynamics • Lotus Domino • Netscape Enterprise Server, Netscape-FastTrack, Netscape-Commerce • Sun Microsystems iPlanet Web Server • iPlanet-Enterprise • Sun Microsystems Java Web Server • Email servers • File and print servers • FTP servers • Proxy servers
Form may include:	• text box • scrollable text box • on/off flags • single selection buttons • selection lists • submit and reset • hidden form tags
CGI script specifications may include:	• CGI/1.1 Specification • CGI/1.2 Specification

Unit Sector(s)

Unit sector	Build
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Co-requisite units

Co-requisite units	
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Co-requisite units		

Competency field

Competency field	
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