



Australian Government

Department of Education, Employment and Workplace Relations

ICAPRG508A Create mashups

Release: 1

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Modification History

Release	Comments
Release 1	This Unit first released with <i>ICA11 Information and Communications Technology Training Package version 1.0</i>

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to combine content from more than one source into new integrated applications and create custom mashups.

Application of the Unit

This unit is for individuals responsible for developing modern web application (Web 2.0) using the enabling technologies to create mashup applications.

This unit addresses the knowledge and skills necessary to remix content from external data services, evaluate Web 2.0 application programming interfaces (APIs) and create mashups.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement but users should confirm requirements with the relevant federal, state or territory authority.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Element	Performance Criteria
<i>Elements describe the essential outcomes of a unit of competency.</i>	<i>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.</i>

Elements and Performance Criteria

1. Remix elements from multiple websites to create new mashups	1.1 Demonstrate understanding of Web 2.0 concepts and the web as a platform 1.2 Search various API providers and the types of services available 1.3 Evaluate and select which APIs to use 1.4 Determine which programming language to use with the selected APIs 1.5 Create mashups of several services
2. Use mashup tools	2.1 Search various mashup tools 2.2 Evaluate and select which tool to use 2.3 Create mashups using the selected tool

Required Skills and Knowledge

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

Required skills

- analytical skills to:
 - choose the right APIs for the mashup
 - evaluate and compare a range of API providers
- literacy skills to:
 - read and interpret API-specific tutorials and introductions
 - read API provider documentation
- problem-solving skills to find the best possible mashup solution to a problem
- research skills to source information from available sources
- technical skills to:
 - create basic mashups with coding
 - use an integrated development environment (IDE)
 - use mashup tools.

Required knowledge

- basic knowledge of:
 - HTML, CSS and JavaScript
 - server-side scripting language
 - XML, web services, AJAX and metadata
- web design
- web development.

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 ability to: create programmable web applications that combine data and functionality from various sources to create new services.
Context of and specific resources for assessment	Assessment must ensure access to: - the internet, in order to use mashup tools and API providers - Web 2.0 tools - IDE - appropriate learning and assessment support when required - modified equipment for people with special needs.
Method of assessment	A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit: - verbal or written questioning to assess knowledge of Web 2.0 concepts and technologies - review of output from: - mashups using code - mashups using mashup tools.
Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, where appropriate. Assessment processes and techniques must be culturally appropriate, and suitable to the communication skill level, language, literacy and numeracy capacity of the candidate and the work being performed. Indigenous people and other people from a non-English speaking background may need additional support. In cases where practical assessment is used it should be combined with targeted questioning to assess required knowledge.

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.

Web 2.0 concepts may include:	• AJAX • atom syndication format • blogs • representational state transfer (REST) • rich site summary (RSS) feeds • simple object access protocol (SOAP) • social bookmarking and folksonomies • social networking sites • tagging • user-generated content • web services technology • wikis.
Services may include:	• blogging services • book search services • calendar services • chart creation service • content sharing service • CRM services • geocoding services • mapping services • music search services • online news • photo sharing services • search services • shopping services • SMS, WAP and email messaging • social bookmarking • social networking service • telephony service • video sharing and search • weather forecast services • widgets.
Programming language	• Java • JavaScript

may include:	• NET • PHP • Ruby.
<i>Mashup tools</i> may include:	• Apatar • Chickenfoot • Dapper • Google Mashup Editor (GME) • IBM Mashup Center • Intel Mash Maker • WaveMaker • Wayfaring • Yahoo Pipes.

Unit Sector(s)

Programming and software development