



Australian Government

ICTCLD505 Implement cloud infrastructure with code

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 6.0.

Application

This unit describes the skills and knowledge required to create and implement cloud infrastructure as code using cloud platform templates. This includes creating templates, then using the templates to create and update cloud infrastructure.

The unit applies to cloud engineers, cloud systems administrators and those who work within cloud computing operations to program, implement and maintain cloud computing solutions for a business.

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

Unit Sector

Cloud computing

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to update cloud infrastructure as code	1.1 Identify and review benefits of infrastructure as code according to business needs 1.2 Determine ways automation leverages cloud platforms according to business needs 1.3 Determine and assess potential issues and errors when implementing infrastructure as code 1.4 Evaluate and select infrastructure as code service compatible with selected cloud platform and business requirements
2. Deploy cloud infrastructure as code templates	2.1 Learn template syntax of selected cloud infrastructure as code service 2.2 Review pre-defined templates and determine what resources

ELEMENTS	PERFORMANCE CRITERIA
	they create and any dependencies 2.3 Utilise the cloud infrastructure as code service tools to deploy, update and delete resources using predefined templates as required 2.4 Confirm deployments of cloud resources and configure resources using cloud platform console or command line tools 2.5 Remove deployed resources using cloud infrastructure as code tools and delete templates as required 2.6 Test and troubleshoot template errors as required
3. Develop and update infrastructure as code templates	3.1 Learn template syntax of selected cloud infrastructure as code service 3.2 Create and deploy template to provision a set of related cloud resources according to business needs 3.3 Update and redeploy template to modify previously deployed resources and add new resources 3.4 Confirm deployment of cloud resources and configure resources using the cloud platform console or command line tools 3.5 Parameterise and deploy template to reuse configuration with a modified resource configuration 3.6 Remove deployed resources using cloud infrastructure as code tools and delete templates as required 3.7 Test and troubleshoot template errors
4. Finalise cloud infrastructure as code	4.1 Create user documentation including cloud infrastructure as code templates 4.2 Obtain final sign off from required personnel

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

SKILL	DESCRIPTION
Oral communication	Uses listening and questioning techniques to confirm requirements and articulate complex concepts and matters using relevant industry for intended audience
Reading	Interprets complex technical and operational documentation to determine and confirm job requirements

SKILL	DESCRIPTION
Writing	• Prepares user documentation detailing developed cloud infrastructure in a logical manner using required syntax and language
Problem solving	• Uses a mix of intuitive and formal processes to identify key information and issues, evaluates alternative strategies, anticipates consequences and considers implementation issues and contingencies • Uses knowledge of context to address common problems in cloud computing applications and cloud-based environments
Self-management	• Demonstrates a sophisticated knowledge of principles, concepts, language and practices associated with cloud computing and the digital world and uses them to troubleshoot and understand the uses and potential of new technology

Unit Mapping Information

No equivalent unit. New unit.

Links

Companion Volume Implementation Guide is found on VETNet -

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