



Australian Government

Assessment Requirements for ICTCLD513

Develop cloud-based microservices architecture using containers

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with the Information and Communications Technology Training Package Version 8.0. Newly created unit of competency to address in-demand skills needs.

Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- develop an application with at least two cloud-based microservices using containers
- extract and deploy services from a monolithic application using containers.

In the course of the above, the candidate must:

- build and deploy containers using application code provided in work brief
- demonstrate that services and applications are communicating and working as intended
- troubleshoot and rectify issues across deployed services
- apply required organisational policies and procedures.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- characteristics of cloud-based microservices architecture, including:
 - smart endpoints and dumb pipes
 - decentralised governance
 - decentralised data management
 - design for failure
 - infrastructure automation
- advantages and disadvantages of microservices compared to monolithic architectures
- benefits of using containers in microservices architecture
- industry-standard tools for building and deploying containers in a cloud environment

- common methods of defining application programming interfaces (APIs) for a service endpoint
- industry-recognised software and hardware required to configure cloud-based microservices architecture, including container technology
- methods for migrating monolithic application to a microservice architecture
- organisational policies and procedures, and legislative requirements relating to work tasks.

Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in this industry.

This includes access to:

- code, software and hardware required to configure cloud-based microservices architecture, including container technology
- work brief, resources, and organisational policies and procedures required to demonstrate the performance evidence.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume Implementation Guide is found on VETNet - -

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