



Australian Government

ICTDAT502 Conduct significance tests

Release: 1

ICTDAT502 Conduct significance tests

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 prepare and test data against an organisation's requirements.

It applies to individuals who work in roles including, data analysts and data scientists, and run hypothesis testing on big data in a medium or large sized organisation.

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

Unit Sector

Data analytics

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. Prepare to conduct significance test	1.1 Analyse organisational requirements for significance testing and determine hypothesis for testing 1.2 Determine testing boundaries and data validation methods 1.3 Select all required data and its sources 1.4 Plan and document data extraction procedure 1.5 Plan and document significance testing activities according to organisational requirements
2. Conduct testing	2.1 Extract and secure data according to task requirements 2.2 Normalise and structure data according task requirements 2.3 Initiate data analysis and determine correct progression 2.4 Manipulate variables within data according to task requirements

ELEMENT	PERFORMANCE CRITERIA
	2.5 Obtain testing results from required sources
3. Report test findings	3.1 Analyse test findings and determine testing has been completed according to test plan and task requirements 3.2 Analyse test findings and conclude hypothesis 3.3 Document testing activities and findings according to task requirements 3.4 Communicate findings with required personnel and seek and respond to feedback 3.5 Lodge documents according to organisational requirements

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 seek and respond to feedback
Reading	• Analyses technical, manufacturer and organisational documentation to determine and confirm job requirements
Writing	• Prepares required documentation conveying explicit information, requirements and recommendations according to organisational requirements
Planning and organising	• Uses a formal, logical planning processes together with an increasingly intuitive understanding of context
Problem solving	• Uses nuanced understanding of context to recognise anomalies and subtle deviations to normal expectations, focusing attention and remedying problems as they arise
Self-management	• Takes full responsibility for identifying and considering relevant organisational protocols and requirements • Uses systematic processes, setting goals, gathering required information and identifying and evaluating options against agreed criteria
Technology	• Demonstrates an understanding of principles, concepts, language and practices associated with the digital world

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>

Assessment Requirements for ICTDAT502 Conduct significance tests

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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:

- plan and conduct a significance test on extracted and normalised data and conclude finding on at least two occasions.

In the course of the above, the candidate must:

- identify and conduct data normalising methodologies
- develop a hypothesis used for significance testing.

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:

- data extraction methodologies
- data normalising methodologies used in data analysis and data reporting
- methodologies of securing and preparing data for data extraction
- industry standard data analysis methodologies
- technical requirements used in extracting different types of data
- hypothesis development for significance testing
- report writing for reporting significance testing in data analytics.

Assessment Conditions

Assessment must be conducted in a safe environment where evidence gathered demonstrates consistent performance of typical activities experienced in the customer service field of work and include access to:

- hardware and software and components required for data analysis tasks

- organisational data reporting style guide and reporting processes required for data reporting
- a site where activities can be carried out.
- data required for testing.

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

Links

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