

Title	Use the main features and functions of a database application to create and test a database		
Level	2	Credits	3

Purpose	<p>People credited with this unit standard are able to use the main features and functions of a database application to create and test a database.</p> <p>This unit standard has been developed primarily for assessment as an option within programmes leading to the New Zealand Certificate in Computing (User Fundamentals) (Level 2) [Ref: 2591] and the New Zealand Certificate in Computing (Foundation User) (Level 2) [Ref: 4132].</p>
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Classification	Computing > Generic Computing
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Available grade	Achieved
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Guidance Information

- 1 Assessment, where applicable, will be conducted in and for the context of real or realistic situations and/or settings, and be relevant to current and/or emerging practice. The assessor may gather evidence over time from a range of scenarios rather than using one assessment where the learner has to demonstrate all of the required skills.
- 2 A brief for the database will be supplied to the learner, and unformatted data files may also be provided. The brief must clearly identify the outcomes required from the database, against which the success or otherwise of the database can be evaluated. The brief will include at least – the target users, the specification which includes the table fields and required attributes, layout requirements for forms, output queries and reports, and a testing plan. The testing plan will be provided to the learner and include the functions and features that need to be tested (such as reports, queries, forms, formulas, validation), data integrity, and the expected outcome for each test. Planning is not required to be assessed as part of this standard however it is good practice to develop a simple conceptual layout design prior to beginning the creation of the database.
- 3 Foundation level database application skills refer to:
 - Creating* – flat file database structures; entering/loading data; creating fields and validation rules; formulas; queries; filters; simple form(s); simple report(s) (may use wizards).
 - Formatting* – text; number; date; field size; currency.
 - Editing* – sort; move; copy; insert; delete; undo/redo; search and replace; data added; formulas amended; renaming database components/objects.

Printing – basic print settings; headers; data records; selected records; hard copy; soft copy.

Saving and sharing data – naming; saving (including as a new file, in logical structures, to local and shared folders, and/or to the cloud); managing data records.

This list is not exhaustive and assessors will need to determine the level of other foundation level database application skills if included.

4 Definitions

Conceptual layout design is a representation clearly indicative of the final product.

Data integrity refers to the maintenance of accurate and consistent data via procedures which control the input, update, deletion of data, and verification of data correctness in the database.

Data type is the type of data stored in a field. Data types at this level must include text, date, and number fields.

Database application refers to a program that enables a user to create, store, modify, access and extract data from a repository commonly referred to as a database. The capabilities of the database required for this standard need only allow for single-table (flat file database), with single-user updates, typically installed on a PC as part of a productivity software package.

Good practice in this context refers to selecting and using the appropriate feature or function to enable correct use of the database, applying standard naming conventions to database objects, and ensuring data integrity by applying data input constraints (data validation techniques).

5 Legislation relevant to this unit standard includes but is not limited to the:

Copyright Act 1994

Copyright (New Technologies) Amendment Act 2008

Harmful Digital Communications Act 2015

Health and Safety at Work Act 2015

Privacy Act 2020

Unsolicited Electronic Messages Act 2007

and any subsequent amendments.

Current legislation and regulations can be accessed at <http://legislation.govt.nz>.

6 Reference

ACC5637 Guidelines for Using Computers - Preventing and managing discomfort, pain and injury. Accident Compensation Corporation - Department of Labour, 2010; available from Worksafe New Zealand, at

<http://www.business.govt.nz/worksafe/information-guidance/all-guidance-items/guidelines-for-using-computers>.

Outcomes and performance criteria

Outcome 1

Use the main features and functions of a database application to create and test a database.

Performance criteria

- 1.1 User interface of a database application is navigated effectively according to good practice.
 Range must include but not limited to – shortcuts, screen display options, finding help.
- 1.2 Main features and functions of a database application are used to create, format, edit, print, save and share data, using good practice in accordance with the given brief.
 Range includes foundation level database application skills with a selection from each of the following categories – creating, formatting, editing, printing, saving and sharing; evidence of at least 12 are required.
- 1.3 A database is created with flat file (single-table) database structure, setting and modifying field properties in accordance with the given brief.
 Range a minimum of four fields of three different data types must be specified, with input validation rules specified where appropriate; field properties may include but are not limited to – data type, required, size (range), format.
- 1.4 Database records are sorted/filtered to meet the requirements of the given brief.
 Range includes but is not limited to – alphabetic, numeric, date.
- 1.5 The database is tested for correct content, function and data integrity in accordance with the test plan specifications in the brief
 Range data integrity and testing procedures may include but are not limited to – checking the database queries, forms and reports display correctly; data accuracy for consistency with test plan.

Replacement information	This unit standard replaced unit standard 2786.
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Planned review date	31 December 2026
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	19 January 2017	31 December 2024
Review	2	26 May 2022	N/A

Consent and Moderation Requirements (CMR) reference	0099
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Toi Mai Workforce Development Council qualifications@toimai.nz if you wish to suggest changes to the content of this unit standard.