

Title	Produce a relational database solution for organisational use		
Level	4	Credits	8

Purpose	People credited with this unit standard are able to design, create and operate, test and evaluate a relational database to provide a solution for organisation use.
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Classification	Computing > Generic Computing
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Available grade	Achieved
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Entry information	
Recommended skills and knowledge	Unit 2787, <i>Create and use a computer database to provide a solution for organisation use</i> , or demonstrate equivalent knowledge and skills.

Explanatory notes

- 1 The database must comprise a minimum of three tables to hold data (each concerning a single subject or topic); relationships between required tables, records that incorporate necessary fields and formats (e.g. text, numeric, currency, memorandum, date/time, auto-number, yes/no); queries, and forms and reports to input and output information to and from multiple tables. For the purposes of assessment the database and organisation must be authentic.
- 2 Definitions
End-user document is a short description of the purpose of the database, and instructions on how to access and navigate the database. The end-user document must use consistent font and layout, be legible, and should either avoid the use of undefined jargon or acronyms, or provide a glossary for these. The document must be saved in a format that is accessible to users.
Organisation describes the context the relational database is designed to operate in (e.g. businesses, clubs, not for profit organisations). It does not define or limit the situations in which assessment evidence may be gathered.
A relational database contains data in records and fields that relate to other tables within the same database, or to tables in another database, or tables in other programs.
Summaries refer to totals that are printed in a report at the end of a group, or section, or the entire report. These may count records within the group or section, or calculate a total for a numeric field, as appropriate to the purpose.

- 3 The assessment context for this unit standard must be suitable to meet the criteria for level 4 in the NZQF Level Descriptors, which are available by searching for “level descriptors” at www.nzqa.govt.nz.
- 4 Legislation relevant to this unit standard includes but is not limited to the:
Copyright Act 1994
Copyright (New Technologies) Amendment Act 2008
Health and Safety in Employment Act 1992,
Privacy Act 1993;
and any subsequent amendments.
- 5 An assessment resource to support computing unit standards (levels 1 to 4) can be found on the NZQA website at www.nzqa.govt.nz/asm.
A specific assessment resource for assessing against unit standard 18742; and ‘*The Computing Process - a clarification document*’ can be found on the NZQA website.

Outcomes and evidence requirements

Outcome 1

Design a relational database for organisation use.

Evidence requirements

- 1.1 Database tables are designed according to the requirements of the organisation and the attributes of the entity.

Range fields.
- 1.2 The naming of objects within the design is completed using a systematic naming convention.
- 1.3 The database table design includes the selection of keys that enable both the unique identification of records, and relationships between tables, to be created.

Range includes but is not limited to – primary key, candidate keys, foreign keys.
- 1.4 The design shows the interrelationships between tables using an entity relationship diagram.

Range entity relationship diagram includes but is not limited to – entity, relationship(s), attribute(s).
- 1.5 The design includes concepts for the layout of the menu structure, forms and reports according to the needs of the organisation and capability of the database.

Outcome 2

Create and operate a relational database for organisation use.

Evidence requirements

- 2.1 Database tables are created to store data in accordance with the design.
- Range data may include but is not limited to – text, numbers, dates and times.
- 2.2 Relationships between tables of data are established in the database in accordance with the entity relationship diagram.
- Range relationships may include – one-to-one, one-to-many, many-to-many.
- 2.3 The database is queried to assemble data from multiple tables according to the needs of the organisation.
- Range including queries to – calculate results from existing data, select data, assemble data from multiple tables, summarise data.
- 2.4 Forms are created to facilitate data entry, and results of queries are displayed using data from multiple tables in accordance with the design.
- 2.5 Reports are created with title and column headings using data from multiple tables.
- Range a minimum of two reports that include – the sorting and grouping of data, summaries.

Outcome 3

Test and evaluate the relational database.

Evidence requirements

- 3.1 Testing verifies that the database meets the design and the requirements of the organisation.
- 3.2 An evaluation report is prepared that identifies strengths and limitations of the relational database and recommends improvements for future developments.
- 3.3 An end-user document is created to facilitate use of the database.

Planned review date	31 December 2016
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	30 July 2002	31 December 2013
Revision	2	16 January 2003	31 December 2013
Revision	3	16 July 2004	31 December 2013
Review	4	19 March 2010	31 December 2015
Rollover and Revision	5	19 September 2013	N/A

Consent and Moderation Requirements (CMR) reference	0226
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Please note

Providers must be granted consent to assess against standards (accredited) by NZQA, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMR). The CMR also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact NZQA National Qualifications Services nqs@nzqa.govt.nz if you wish to suggest changes to the content of this unit standard.