

**000002****Create a database solution for an organisation**

<b>Kaupae   Level</b>	5
<b>Whiwhinga   Credit</b>	15
<b>Whāinga   Purpose</b>	<p>This skill standard is for people who want to learn how to create database solutions in organisational contexts.</p> <p>It is for computer technicians, help desk and technical support officers, and anyone else employed in roles that involve Information Technology (IT) technical support.</p> <p>It can be used in the New Zealand Diploma in Information Technology Technical Support (Level 5) [ref. 2596]</p>

**Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria**

<b>Hua o te ako   Learning outcomes</b>	<b>Paearu aromatawai   Assessment criteria</b>
1. Plan, design, and implement a database that meets organisational requirements	a. Apply data modelling tools and techniques to design a database following an organisation's business requirements.
	b. Install and configure DBMS software to suit the organisational requirements.
	c. Implement database administration design concepts, best practices, and tools to convert the data model to develop a database.
2. Troubleshoot, maintain and secure a database to meet organisational requirements.	a. Apply authentication, authorisation, and encryption methods to develop a secure database.
	b. Implement backup and recovery techniques to maintain a database.
	c. Identify, formulate, and test a solution to resolve database-related issues.
3. Evaluate and optimise database performance using appropriate tools and techniques.	a. Apply database optimisation techniques to improve database performance, including indexing, partitioning, and caching.
	b. Use appropriate database optimisation tools to improve database performance.

**Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria**

**Assessment specifications:**

The assessment must take place in a realistic practical setting which incorporates industry standard technologies relevant to current practice.

To complete this standard, you must observe expected standards of behaviour for IT practitioners in New Zealand. The IT Professionals NZ Code of Ethics provides a guideline for these behaviours.

**Ngā momo whiwhinga | Grades available**

Achieved

**Ihirangi waitohu | Indicative content**

- Database design and implementation
- Database management system (DBMS) installation and configuration
- Database administration tasks and procedures
- Database maintenance and database security
- Structured query language (SQL) commands
- Data modelling
- Database optimisation

**Rauemi | Resources**

- The IT Professionals New Zealand Code of Ethics is available at <https://itp.nz/practice-guidelines>.

**Pārongo Whakaū Kounga | Quality assurance information**

<b>Ngā rōpū whakatau-paerewa   Standard Setting Body</b>	Toi Mai Workforce Development Council
<b>Whakaritenga Rārangi Paetae Aromatawai   DASS classification</b>	Computing and Information Technology > Computing > Generic Computing
<b>Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga   CMR</b>	0099

<b>Hātepe   Process</b>	<b>Putanga   Version</b>	<b>Rā whakaputa   Review Date</b>	<b>Rā whakamutunga mō te aromatawai   Last date for assessment</b>
<b>Rēhitatanga   Registration</b>	<type here>	[dd mm yyyy]	[dd mm yyyy]
<b>Arotakenga   Review</b>	<type here>	[dd mm yyyy]	[dd mm yyyy]
<b>Kōrero whakakapinga   Replacement information</b>	<type here>		
<b>Rā arotake   Planned review date</b>	[dd mm yyyy]		

Please contact Toi Mai Workforce Development Council at [qualifications@toimai.nz](mailto:qualifications@toimai.nz) to suggest changes to the content of this skill standard.