

## Unit 240: Database Software Level 2

Level: 2

Credit value: 4

Guided learning hours: 30

Learning Outcomes	Assessment Criteria	Examples
<p>The learner will:</p> <p>1. Create and modify non-relational database tables</p>	<p>The learner can:</p> <p>1.1 Identify the components of a <b>database design</b></p> <p>1.2 Describe the <b>field characteristics</b> for the data required</p> <p>1.3 Create and <b>modify database tables</b> using a range of field types</p> <p>1.4 Describe ways to maintain <b>data integrity</b></p> <p>1.5 Respond appropriately to <b>problems with database tables</b></p> <p>1.6 Use database tools and techniques to ensure data integrity is maintained</p>	<p><b>Database design:</b> What types of information are stored, use of data entry form, routine queries, how data is structured in a single table non-relational database; use of indexes and key field to organise data</p> <p><b>Data integrity:</b> Unique not null primary key; field characteristics; data validation; consistency, completeness, accuracy; Effect of malicious or accidental alteration;</p> <p><b>Modify database table:</b> Add/amend/delete field; field characteristics</p> <p><b>Field characteristics:</b> Data type, field name, field size, format, validation; primary key</p> <p><b>Problems with database tables:</b> Redundant data, duplication, table structure, field characteristics and validation; sources of help</p>
<p>2. Enter, edit and organise structured information in a database</p>	<p>2.1 Create forms to <b>enter, edit and organise data</b> in a database</p> <p>2.2 Select and use appropriate tools and techniques to <b>format data entry forms</b></p> <p>2.3 <b>Check data entry</b> meets needs, using IT tools and making corrections as necessary</p>	<p><b>Enter, edit and organise data:</b> Select and update fields, create new records, locate and amend records; using wildcards, search operators; <i>error checking; data validation</i></p> <p><b>Format data entry forms:</b> Field characteristics and layout, tables, colour,</p>

	2.4 Respond appropriately to <b>data entry errors</b>	<p>lookups</p> <p><b>Check data entry:</b> Spell check, format, accuracy, consistency, <i>completeness, validity, security</i></p> <p><b>Data entry errors:</b> Due to field size, data type, validation checks; using help; <i>deal with data that does not fit parameters, alerts, reminders; problems with forms</i></p>
3. Use database software tools to run queries and produce reports	<p>3.1 Create and run <b>database queries</b> using multiple criteria to display or amend selected data</p> <p>3.2 Plan and produce <b>database reports</b> from a single table non-relational database</p> <p>3.3 Select and use appropriate tools and techniques to <b>format database reports</b></p> <p>3.4 <b>Check reports</b> meet needs, using IT tools and making corrections as necessary</p>	<p><b>Database queries:</b> Alphanumeric sort, filter, single criteria, <i>multiple criteria; save queries and output</i></p> <p><b>Database reports:</b> Using menus, wizards or shortcuts; <i>selected fields; selected records</i></p> <p><b>Formatting database reports:</b> Data fields; page and section layout; add text or images; adjust page setup for printing</p> <p><b>Check reports:</b> Completeness, accuracy, security, sorting, formatting, layout</p>

## Unit purpose and aim

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This is the ability to use a software application designed to organise and store structured information and generate reports.

This unit is about selecting and using intermediate database software tools and techniques to:

- enter information into databases, that is at times non-routine or unfamiliar;
- retrieve information by creating queries using multiple selection criteria; and
- produce reports by setting up menus or short cuts.

They will also be able to create and modify single table, non-relational databases. Any aspects that are unfamiliar may require support and advice from others.

Database tools, functions and techniques at this level will be defined as:

- the software tools and functions involved will at times be non-routine or unfamiliar; and
- the choice and use of input, manipulation and output techniques will need to take account of a number of factors or elements.

## Details of relationship between the unit and national occupational standards

This unit maps fully to competences outlined in IT User National Occupational Standards version 3 (2009).

## Assessment

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All ITQ units may be assessed using any method, or combination of methods, which clearly demonstrates that the learning outcomes and assessment criteria have been met. Assessments must also take into account the additional information provided in the unit Purpose and Aims relating to the level of demand of:

- > the activity, task, problem or question and the context in which it is set;
- > the information input and output type and structure involved; and
- > the IT tools, techniques or functions to be used.

See Recommended Assessment Methods in the ITQ Centre Handbook.

## Evidence requirements

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An evidence checklist must be completed without gaps.

Where candidates are submitting evidence produced having sat an OCR-set assignment, there is no need to complete an evidence checklist.

## Guidance on assessment and evidence requirements

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Please refer to the centre handbook for ITQ 2009.