



INFOCUS COURSEWARE

# BSBITA411 Design And Develop Relational Databases

Microsoft Access 2016



Product Code: INF1850

ISBN: 978-1-925873-77-1

## ❖ General Description

This course has been mapped to the **BSBITA411 - Design And Develop Relational Databases** competency. It applies to individuals who may work independently or within an administrative support role, with the responsibility to use databases to store and retrieve data using commercially available database software.

## ❖ Learning Outcomes

At the completion of this course you should be able to:

- understand how **Access** is used and how to navigate around it
- design a relational database project
- create a relational database file with multiple tables
- modify the structure of an existing table
- set table relationships and join tables together
- add records to a new table
- add transactional records to a lookup database
- use various data validation features in **Access** to protect data
- work with the records in a database table
- export records to and import records from a wide variety of sources and applications
- create simple and effective queries
- perform more advanced queries using a variety of querying techniques
- create queries based on one or more tables
- create and use parameter queries
- create calculated queries
- create and work with aggregation queries
- create and use a series of action queries
- create meaningful reports from tables
- create and use forms
- modify and adapt an existing form according to specific needs
- create a navigation form for a database in **Access 2016**
- understand how to access and use help

## ❖ Prerequisites

BSBITA411 Design And Develop Relational Databases assumes some knowledge of Microsoft Access 2016.

## ❖ Topic Sheets

257 topics

## ❖ Methodology

The InFocus series of publications have been written with one topic per page. Topic sheets either contain relevant reference information, or detailed step-by-step instructions designed on a real-world case study scenario. Publications can be used for instructor-led training, self-paced learning, or a combination of the two.

## ❖ Formats Available

A4 Black and White, A5 Black and White (quantity order only), A5 Full Colour (quantity order only), Electronic Licence



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## ❖ Companion Products

There are a number of complementary titles in the same series as this publication. Information about other relevant publications can be found on our website at **[www.watsoniapublishing.com](http://www.watsoniapublishing.com)**.

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## Querying Techniques

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## Unit Mapping

This unit describes the skills and knowledge required to design and develop a database (including queries, forms and reports) to meet a defined need using existing data.

	Performance Criteria	Location
<b>1</b>	<b>Design Databases</b>	
1.1	Identify organisational and task requirements to confirm scope and functionality of database design, including data redundancy	Chapter 2: Relational Database Design
1.2	Develop a logical data model to identify and classify data into types in accordance with organisational and task requirements	Chapter 2: Relational Database Design
1.3	Select appropriate digital application/platform according to organisational and task requirements and required scope and functionality of database	Chapter 1: Getting to Know Access 2016
1.4	Create and document proposed database structure, and share with appropriate personnel in accordance with organisational policies and procedures	Generally assumed throughout
1.5	Seek feedback on proposed database design from appropriate personnel	Generally assumed throughout. Can be tested through practice exercises and integration assignment
<b>2</b>	<b>Develop database</b>	
2.1	Set field attributes according to data type and link databases by a common field in accordance with database application usage	Chapter 3: Creating a Relational Database
2.2	Assign primary key to uniquely identify data	Chapter 3: Creating a Relational Database
2.3	Assign foreign keys to establish associations between data, in accordance with organisational and task requirements	Chapter 2: Relational Database Design, Chapter 3: Creating a Relational Database, Chapter 5: Setting Table Relationships
2.4	Use software functions and formulae to meet organisational and task requirements	Generally assumed throughout. Can be tested through practice exercises and integration assignment
2.5	Create password and access system according to organisational and task requirements	Chapter 21: Using a Navigation Form
2.6	Access and use application help functions overcome intermediate-level issues with database design and production, where required	
<b>3</b>	<b>Develop queries, forms and reports</b>	
3.1	Identify information output, database tables to be used and report layout, in accordance with task requirements	Chapter 3: Creating a Relational Database, Chapter 18: Creating and Using Reports, Generally assumed throughout
3.2	Identify data groupings, search and sort criteria, in accordance with task requirements	Chapter 2: Relational Database Design, Chapter 9: Working With Records, Chapter 12: Querying Techniques
3.3	Run reports and queries to confirm that results and formulae produce required data	Chapter 11: Creating Queries, Chapter 12: Querying Techniques, Chapter 18: Creating and Using Reports
3.4	Modify reports to include or exclude additional requirements, where necessary	Chapter 19: Creating and Using Forms
<b>4</b>	<b>Test and finalise database</b>	
4.1	Populate database with sample dataset for testing, meeting organisational requirements for speed and accuracy	Chapter 6: Adding Records to a Table, Chapter 7: Adding Transactional Records, Chapter 10: Importing and Exporting Records
4.2	Assess and document effectiveness of data relationships, query forms and reports, assessing against organisational and task requirements	Chapter 8: Data Validation
4.3	Document and address any errors in database design	Generally assumed throughout. Can be tested through practice exercises and integration assignment
4.4	Name and store database in accordance with organisational policies and procedures relating to data security, and exit the application without data loss or damage	Chapter 3: Creating a Relational Database
4.5	Confirm database readiness with appropriate personnel	Generally assumed throughout. Can be tested through practice exercises and integration assignment

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