ICDL MODULE
USING DATABASES

Syllabus Version 6.0 – Item Comparison to Syllabus Version 5.0

Purpose

This document details the syllabus for the Using Databases module. The syllabus describes, through learning outcomes, the knowledge and skills that a candidate for the Using Databases module should possess. The syllabus also provides the basis for the theory and practice-based test in this module.

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Using Databases Module

This module sets out essential concepts and skills relating to understanding the concept of a database and demonstrating competence in using a database application.

Module Goals

Successful candidates will be able to:

- Understand what a database is and how it is organised.
- Create a simple database and view the database content in various modes.
- Create a table, define and modify fields, and create relationships between tables. Enter and edit data in a table.
- Use filters and queries to retrieve specific information from a database.
- Create a form to enter, modify and delete records and data in records.
- Create routine reports and prepare outputs ready for print or electronic distribution.

CATEGORY	SKILL SET	REF.	TASK ITEM	Status to S5.0	Original S5.0 Ref.	Comment
1 Understanding Databases	*1.1 Key Concepts*	1.1.1	Understand what a database is.	No change	1.1.1	
		1.1.2	Understand that information is the processed output of data.	Minor rewording	1.1.2	Rephrased item
		1.1.3	Understand how a database is organised in terms of tables, records and fields.	Minor rewording	1.1.3	Changed from "organized"
		1.1.4	Understand that all database data is stored in tables. Understand that changes are automatically saved.	NEW		
		1.1.5	Know some of the common uses of databases like: social networks, booking systems, government records, bank account records, hospital patient details.	Content added, content removed	1.1.4	Added "social networks", removed "large scale", "airline".
	1.2 Database Organisation	1.2.1	Understand that each table in a database should contain data related to a single subject type.	Minor Rewording	1.2.1	Skill Set changed from "Organization"
		1.2.2	Understand that each record in a database should contain data related to a single subject.	NEW		
		1.2.3	Understand that each field in a table should contain only one element of data.	No change	1.2.2	
		1.2.4	Understand that field content is associated with an appropriate data type like: text, number, date/time, yes/no.	No change	1.2.3	
		1.2.5	Understand that fields have associated field properties like: field size, format, default value.	No change	1.2.4	
		1.2.6	Understand what a primary key is.	No change	1.2.5	

CATEGORY	SKILL SET	REF.	TASK ITEM	Status to S5.0	Original S5.0 Ref.	Comment
		1.2.7	Understand that the main purpose of an index is to speed up search queries.	Minor rewording	1.2.6	Rephrased item
	1.3 Relationships	1.3.1	Understand that the main purpose of relating tables in a database is to minimise duplication of data.	Minor rewording	1.3.1	Changed from "minimize"
		1.3.2	Understand that a relationship is built by matching a unique field in one table with a field in another table.	No change	1.3.2	
		1.3.3	Understand the importance of maintaining the integrity of relationships between tables.	No change	1.3.3	
2 Using the Application	*2.1 Working with Databases*	2.1.1	Open, close a database application.	No change	2.1.1	
		2.1.2	Open, close a database.	No change	2.1.2	
		2.1.3	Create a new database and save to a location on a drive.	No change	2.1.3	
		2.1.4	Display, hide built-in toolbars. Restore, minimise the ribbon.	Minor rewording	2.1.4	Changed from "minimize"
		2.1.5	Use available help resources.	Minor rewording	2.1.5	Changed from "Help functions"
	2.2 Common Tasks	2.2.1	Open, save, close a table, query, form, report.	Minor rewording	2.2.1	Change from "save and close"
		2.2.2	Switch between view modes in a table, query, form, report.	No change	2.2.2	
		2.2.3	Delete a table, query, form, report.	No change	2.2.3	
		2.2.4	Navigate between records in a table, query, form. Navigate between pages in a report.	Content added	2.2.4	Added "Navigate between pages in a report."

CATEGORY	SKILL SET	REF.	TASK ITEM	Status to S5.0	Original S5.0 Ref.	Comment
		2.2.5	Sort records in a table, form, query output in ascending, descending numeric, alphabetic order.	No change	2.2.5	
3 Tables	*3.1 Records*	3.1.1	Add, delete records in a table.	No change	3.1.1	
		3.1.2	Add, modify, delete data in a record.	No change	3.1.2	
	3.2 Design	3.2.1	Create and name a table and specify fields with their data types like: text, number, date/time, yes/no.	No change	3.2.1	
		3.2.2	Apply field property settings: field size, number format, date/time format, default value.	No change	3.2.2	
		3.2.3	Understand consequences of changing data types, field properties in a table.	No change	3.2.4	
		3.2.4	Create a simple validation rule for numbers.	Minor rewording	3.2.3	Added "simple", removed "date/time, currency"
		3.2.5	Set a field as a primary key.	No change	3.2.5	
		3.2.6	Index a field with, without duplicates allowed.	Minor rewording	3.2.6	Removed brackets
		3.2.7	Add a field to an existing table.	No change	3.2.7	
		3.2.8	Adjust the width of column(s) in a table.	Minor rewording	3.2.8	Changed to "Adjust" and "column(s)"
	3.3 Relationships	3.3.1	Create a one-to-many relationship between tables.	NEW		
		3.3.2	Delete a one-to-many relationship between tables.	NEW		

CATEGORY	SKILL SET	REF.	TASK ITEM	Status to S5.0	Original S5.0 Ref.	Comment
		3.3.3	Apply referential integrity between tables.	NEW		
4 Retrieving Information	*4.1 Main Operations*	4.1.1	Use the search command for a specific word, number, date in a field.	No change	4.1.1	
		4.1.2	Apply a filter to a table, form.	No change	4.1.2	
		4.1.3	Remove filter from a table, form.	Minor rewording	4.1.3	Removed "the application of a"
	4.2 Queries	4.2.1	Understand that a query is used to extract and analyse data.	No change	4.2.1	
		4.2.2	Create a named single-table query using specific search criteria.	Minor rewording	4.2.2	Inserted hyphen "single-table"
		4.2.3	Create a named two-table query using specific search criteria.	No change	4.2.3	
		4.2.4	Add criteria to a query using one or more operators: = (Equal), <> (Not equal to), < (Less than), <= (Less than or equal to), > (Greater than), >= (Greater than or equal to).	Minor rewording	4.2.4	Removed "of the following"
		4.2.5	Add criteria to a query to sort records in ascending, descending numeric, alphabetic order.	NEW		
		4.2.6	Add criteria to a query using one or more logical operators: AND, OR, NOT.	No change	4.2.5	
		4.2.7	Use a wildcard in a query like: * or %, ? or _.	Minor rewording	4.2.6	"_" instead of "__"
		4.2.8	Edit a query: modify, remove criteria.	Minor rewording	4.2.7	Removed "add"
		4.2.9	Edit a query: add, remove, move, hide, unhide fields.	No change	4.2.8	
		4.2.10	Run a query.	No change	4.2.9	

CATEGORY	SKILL SET	REF.	TASK ITEM	Status to S5.0	Original S5.0 Ref.	Comment
5 Forms	*5.1 Using Forms*	5.1.1	Understand that a form is used to display, add and edit records.	Minor rewording	5.1.1	Changed to "add and edit"
		5.1.2	Create and name a simple form.	Minor rewording	5.1.2	Included "simple"
		5.1.3	Use a form to insert new records.	No change	5.1.3	
		5.1.4	Use a form to delete records.	No change	5.1.4	
		5.1.5	Use a form to add, modify, delete data in a record.	No change	5.1.5	
		5.1.6	Add, modify text in headers, footers in a form.	No change	5.1.6	
6 Outputs	*6.1 Reports, Data Export*	6.1.1	Understand that a report is used to present selected information from a table, query.	Minor rewording	6.1.1	Changed to "present"
		6.1.2	Create and name a simple report based on a table, query.	Minor rewording	6.1.2	Included "simple"
		6.1.3	Create and name a grouped report. Sort records and calculate summary information like: sum, minimum, maximum, average.	Content added, content removed	6.1.4	Added "Create and name a grouped report.", removed "count, at appropriate break points"
		6.1.4	Edit a report: change arrangement of data fields, headings.	Minor rewording	6.1.3	Rephrased item
		6.1.5	Edit a report: add, modify text in headers, footers.	Minor rewording	6.1.5	Rephrased item
		6.1.6	Export a table, query output in spreadsheet, text file, csv, XML format to a location on a drive.	Minor rewording	6.1.6	Changed from "text (.txt, .csv)"
		6.1.7	Export a report output in pdf format to a location on a drive.	NEW		

CATEGORY	SKILL SET	REF.	TASK ITEM	Status to S5.0	Original S5.0 Ref.	Comment
	6.2 Printing	6.2.1	Change table, form, query output, report orientation: portrait, landscape. Change paper size.	Minor rewording	6.2.1	Rephrased item
		6.2.2	Print a page, selected record(s), complete table.	No change	6.2.2	
		6.2.3	Print all records, specific page(s) using form layout.	Minor rewording	6.2.3	Removed first "using form layout"
		6.2.4	Print the result of a query.	No change	6.2.4	
		6.2.5	Print specific page(s) in a report, print complete report.	No change	6.2.5	