Cambridge International Diploma in IT Skills
Foundation Level

Scheme of Work

5272
Databases
Optional Module

UNIVERSITY *of* CAMBRIDGE
International Examinations

Introduction

This application is designed to familiarise students with the database application. The candidate should possess the skills and knowledge required to understand and perform everyday uses of a database package, to build a simple database and create simple queries and reports from an existing database.

What is Assessed in this Module?

Candidates will demonstrate the ability to:

- create a database structure
- enter data
- edit data
- manipulate data
- present, save and print a database

Underpinning Knowledge:

Candidates should know how to:

- initialise and close the application **and**
- possess competent computer keyboard and mouse skills.

Tutor Preparation Required to Deliver this Module

Below is a checklist of what you will need to set up before you run the course. Some of the items, such as an overhead projector, are optional.

You will need to :
- ideally, have one computer (PC) per candidate with MS Windows 95/98/NT/2000/XP and MS Access 97 / 2000 / 2002 preloaded, but candidates can also share PCs
- copy the exercise file example.mdb from the floppy disc to each PC (C:\My Documents) and create a folder for candidates to save their work to (C:\My Documents\Candidates)
- copy the database training.mdb onto the trainers PC to use for demonstrations. This course contains a lot of demonstrations; depending on speed/experience it may be more effective to walk the candidates through some of the examples rather than demonstrating them. If this is the intended course of action then the training.mdb will need to be loaded on all the PCs so that any practical examples are completed using this file and not the orders.mdb which will be used to complete the exercises.
- ensure, if the PCs are networked, that all candidates have been advised of their user name and password
- make sure the PCs are turned OFF before the start of training
- ensure that the candidates have access to a printer – local or networked – that all candidates can print to
- have an overhead projector and screen OR PC with LCD projector/large monitor
- have a flip chart, pens and whiteboard
- have CIE Support Guides
- have name cards, paper and pens for the candidates

General Principles and Procedures

If using a network to deliver this course you may prepare documents showing candidates how to log on.

Important Note

This application module is only available for assessment using Microsoft Access 97, Access 2000 or Access 2002.

Scheme of Work

Assessment Objectives	Performance Criteria	Classroom Ideas	Resources	Notes
Session Plan One (1.5hrs)				
• introduction and course objectives		• introduction of trainer, course and trainees • log onto PCs, open Access, demonstrate Access taskbar icon	• CIE Tutor Support Guide • CIE Candidate Support Guide • OHTs • additional exercises for each Performance Criterion	It is important to let the candidates know what will be assessed at the end of the module. Tutors could provide a checklist with objectives to be ticked off after each session so that candidates can track their progress. Use the additional exercises to reinforce the skills the candidates have learned for each Performance Criteria. It may be useful to describe the meaning of the term *database* and to give an example of a good database. Also list examples of manual, printed and business databases. Advise candidates that Access will prompt them to save any unsaved data before closing. Remind them it is advisable to do so! To access ScreenTips for an area of the Access window, go to the Help menu and select What's This? To access ScreenTips in a dialogue box, first display the dialogue box for which help is required, then click the question mark (?) in the top right-hand corner.

Assessment Objectives	Performance Criteria	Classroom Ideas	Resources	Notes
Session Plan One (1.5hrs) Continued				

• getting started with MS Access		• demonstrate how to launch Access either from the Office toolbar, desktop icon or Start menu
		 • demonstrate how to exit from Access
		 • explain the components of the opening Access screen including;
		   - title bar
		   - menu bar
		   - toolbars
		   - menus – submenus
		   - use of shortcut keys
		   - dialogue boxes
		 • describe each of the options available from the Print Dialogue box
		 • explain that the Office Assistant is an easy way to get help
		 • show how to display the Office Assistant
		 • demonstrate how to run a search for help
		 • demonstrate ScreenTips for an area of the Access window
		 • demonstrate ScreenTips in a dialogue box		

Assessment Objectives	Performance Criteria	Classroom Ideas	Resources	Notes
Session Plan One (1.5hrs) Continued				
• create a database structure	4.1	• demonstrate how to create a new database • describe the difference between a blank database and using the database Wizard • explain that before the database can be used it must be created as a file so that data can be saved to it automatically • explain the components of the database window • explain the concept of a table object and demonstrate the options available in the New Table dialogue box • define the types of data that can be entered into a field • explain field properties	• CIE Tutor Support Guide • CIE Candidate Support Guide • OHTs • additional exercises for each Performance Criterion	Only one database can be opened at any one time but within that database many tables can be open at the same time. If another database is opened another session of the application is started. Fields must have a unique name and can contain up to 64 characters. Each field has a set of properties.

Assessment Objectives	Performance Criteria	Classroom Ideas	Resources	Notes
Session Plan Two (1.25hrs)				
• enter data • edit data	4.2 4.3	• revise field properties and demonstrate how to add fields to a database. • demonstrate the two main ways of entering data, either by using a Table or a Form • demonstrate how to add data (A sample file is on the Teachers disc with sample data specified in the Teachers Resource file) • explain when data is saved when using Access • explain how to edit data and how to correct data • demonstrate how to copy and move data from one field to another • demonstrate how to select, copy and delete single and multiple records within a table • describe how to change the data type of a field • demonstrate how to insert a field • demonstrate how to delete a field • demonstrate how to change the size of a field using both actual field length or the display length	• CIE Tutor Support Guide • CIE Candidate Support Guide • OHTs • additional exercises for each Performance Criterion	Data is saved automatically in Access when you finish inputting new data and move to another record. This is the reason that a database must always be created before data is entered. Changing the data type of a field from number to text can be done. However, an error message will be displayed if the data type is changed from text to number.

Assessment Objectives	Performance Criteria	Classroom Ideas	Resources	Notes
Session Plan Three (1.5hrs)				
• manipulate data	4.4	• explain that records can be sorted alphanumerically or numerically and that any field other than a Memo/OLE can be sorted • explain that Access sorts starting with the left most column and works to the right • demonstrate how to sort data numerically • demonstrate how to sort data A - Z • demonstrate how to sort data Z - A • demonstrate how to create a select query using the Simple Query Wizard • demonstrate how to run and save a query • demonstrate how to change a query by adding and deleting fields • demonstrate how to run a query on a single field using the Find What facility	• CIE Tutor Support Guide • CIE Candidate Support Guide • OHTs • additional exercises for each Performance Criterion	A select query is a way to ask questions about the data in an Access database. Access uses Query by Example (QBE) to ask questions, whereby the example of data to be found is typed in. With a select query you can: • limit records by specifying criteria • chose the fields required in the result • sort the records in a specific order • view data from more than one table • perform calculations • summarise data

Assessment Objectives	Performance Criteria	Classroom Ideas	Resources	Notes
Session Plan Four (1.25hrs)				
• present, save and print database	4.5	• demonstrate the different methods available to change column widths and row heights • demonstrate how to move a column • demonstrate how to hide a column • demonstrate how to re-display a hidden column • demonstrate how to freeze and unfreeze column/s into position • demonstrate how to save a table and the associated table properties • demonstrate how to print a table • demonstrate how to print a selected record in a table • describe the facilities and commands available in Print Preview	• CIE Tutor Support Guide • CIE Candidate Support Guide • OHTs • additional exercises for each Performance Criterion	

www.xtremepapers.net

Resource List

Online Resources

There are many sites available which cover this topic.

http://www.utteraccess.com/
A discussion site where questions can be asked on all aspects of working with Access. Registration is needed but this is free.

http://keptin.net/virtualhelpdesk/access/
A searchable tutorial site giving tutorials for all levels of skill from Foundation to Advanced.

http://mis.bus.sfu.ca/tutorials/MSAccess/tutorials.html
A tutorial site for all levels of knowledge and skills and all versions of Access. Downloadable files and resources are also available.

http://www.microsoft.com/office/access/default.asp
The official Microsoft site for Access. There are plenty of hints and tips on this site with useful screen shots. This site can be accessed in different languages by visiting http://www.microsoft.com/worldwide and selecting the appropriate country.

http://www.ferl.becta.org.uk/
This site has a wide range of tutorial support for all Microsoft Applications

http://www.cie.org.uk/CIE/WebSite/UCLESData/Documents/Career%20%26%20Skills%20Awards/IT/Resources/glossary.pdf
A Glossary of Terms is available on the CIE website, which is useful for this module.

Books

McBride, P K *Skills Award in Information Technology: Foundation Level* (Edition 2002)
Cambridge University Press ISBN 0521525292

British Computer Society *A Glossary of Computing Terms* (Edition 1998)
Longman ISBN 0582369673

Other Resources

The built-in Access Help files have many hints and tips and include a search facility. Also available is the Windows demonstration presentation which can be used to give an introduction to the Windows operating system.