SOLAS

An tSeirbhís Oideachais Leanúnaigh agus Scileanna
Further Education and Training Authority

Module Descriptor
Database Applications

Award Type: Minor
Award Level: 3
Award Code: 3N0550
Assessment Code: 3N0550-007
Validation date: 14th July 2011

Revision 3.0

Module Descriptor

Purpose: The purpose of this module is to provide the learner with an understanding of the basic concepts and functions of databases and to equip the learner with the knowledge, skill and competence to record, store and access information using a computerised database application in a supervised office environment.

Module Duration: The learning effort required from a typical learner to successfully achieve the stated learning outcomes for the module is one hundred hours.

Learning Outcomes: By the end of this module, the learner will be able to:

1. Outline the main functions of and uses for a database application

2. Explain basic terminology associated with database use

3. Create a new database and save it to a specified location

4. Design a new table using given fields, data types and field sizes

5. Perform basic data operations in a table, to include entering data, editing, deleting, sorting, searching, saving and printing

6. Perform basic query operations based on given criteria

7. Perform basic data entry form operations

8. Create a database report using new and existing data

9. Print database reports

10. Demonstrate the application of communications, safety awareness and quality awareness in an ICT environment

Key Learning Points

Learning Outcome 1: Outline the main functions of and uses for a database application
Key Learning Points
• Database applications • Principal functions of database applications • Uses for database applications

Learning Outcome 2: Explain basic terminology associated with database use
Key Learning Points
• Database terminology • Database objects including tables, queries, forms and reports • Terms associated with table structure to include field names, primary key, data types, field sizes and records • Developing a glossary of database terminology

Learning Outcome 3: Create a new database and save it to a specified location
Key Learning Points
• Creating a new database • Saving a database to a specific location • Appropriate naming conventions • Exiting a database

Learning Outcome 4: Design a new table using given fields, data types and field sizes
Key Learning Points
• Data types, fields and field sizes • Opening a database from a specified location • Designing a new database table with specified fields • Assigning appropriate data types • Setting field sizes • Saving a database table • Opening a table from within a database

Learning Outcome 5: Perform basic data operations in a table, to include entering data, editing, deleting, sorting, searching, saving and printing
Key Learning Points

- Basic database operations
- Entering data into a database table
- Editing data in a database table
- Deleting from a database table
- Sorting data in a database table using the sort function
- Searching for data in a database table using the search function
- Saving data in a database table
- Printing a database table

Learning Outcome 6:
Perform basic query operations based on given criteria

Key Learning Points

- Basic query operations
- Creating a database query
- Entering criteria into a query
- Using correct expressions for criteria
- Proof-reading criteria entered to ensure spelling is correct
- Generating a query using the run function
- Viewing results of a query in design view and datasheet view
- Saving a query with a specified name

Learning Outcome 7:
Perform basic data entry form operations

Key Learning Points

- Basic data entry form operations
- Creating a data entry form
- Saving a form with a specified name
- Entering new records into a form
- Navigating records through a form
- Deleting records through a form
- Selecting a layout for a form
- Selecting a style for a form

Learning Outcome: 8
Create a database report using new and existing data

Key Learning Points

- Basic report operations
- Creating a database report by entering data into tables, forms and queries and generating a report
- Creating a database report using existing data

• Saving a database report with a specified name

Learning Outcome 9: Print database reports
Key Learning Points
• Setting print area • Setting size • Selecting default printer • Printing a database report

Learning Outcome 10: Demonstrate the application of communications, safety awareness and quality awareness in an ICT environment
Key Learning Points
• Knowledge of vocational language • Listening and responding to spoken language • Reading and writing to obtain and convey information • Applying appropriate health and safety procedures • Reflecting on own strengths and weaknesses • Identifying areas for improvement

Assessment Specification

Award Title	**Database Applications**
Award Type	**Minor**
Assessment Code	**3N0550-007**
Credit Value :	**10**
Award Code*:*	**3N0550**

Assessment Type	Assessment Details	Weighting	Stage at which assessment takes place
PO	E1: Main Function and Uses of a Database E2: Terms Associated with Database Use E3: Create a New Database and Enter Data	60%	Às topic covered in class over the course of the module
SD	Create a Query and Print a Report	40%	End of Module

Suggested Learning Methodologies:

- Skills Demonstrations
- Discussion Groups
- Videos/DVDs
- Practical Guidance
- Simulated work environment
- Note taking
- Exercises and Activities

Specific Module Requirements

Computers with database applications installed
Access to a printer

Suggested Learning Resources:

All of the highlighted Curriculum Resources mentioned below are available on the Moodle Community Services Curriculum and Assessment page. You can access the CSCA Moodle web page from this link:
http://www.ecollege.ie/site/home.html
If you do not already have a username and password, ask your supervisor to contact us at CSCA@fas.ie

Text Books and DVD/CD-ROMs

A range of textbooks dealing with databases

Microsoft Office Version 2003:

- *Absolute Beginner's Guide to Microsoft Office Access 2003* by Mike Gunderloy and Susan Sales Harkins ISBN-10: 0768661994
- *Microsoft Access 2003 Step by Step* by Online Training Solutions ISBN-13: 9780735615175
- *Access 2003 Bible* by Cary N.Prague, Michael R.Irwin and Jennifer Reardon ISBN: 9780764539862 (includes CD-ROM)
- *Database Instruction Manual for MS Access 2003* by David Bracken (from Suggested Learning Resources)

Microsoft Office Version 2007:

- *Microsoft Office Access 2007 Inside Out* by John L.Viescas and Jeff Conrad ISBN13: 9780735623255
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Microsoft Office Version 2010:

- *Microsoft Office Access 2010 Inside Out* by Ed Bott and Carl Siechert ISBN -10: 0735626898
- *Teach Yourself VISUALLY Office 2010 by Kate Shoup ISBN: 0470571934*

Open Source (not software specific):

- *Access Forms and Reports for Dummies* by Brian Underdahl ISBN-10: 0471776262
- *Oxford English Dictionary, 2nd edn. Oxford:Clarendon Press, 1989.*

Generic Skills: Literacy and Numeracy

The learners will keep and maintain a **Learning Diary** throughout the course in order to record and file any useful and relevant information on database applications.

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At the end of every week, the learners will complete a short **Weekly Reflective Sheet** in order to reflect on their learning and progress during that week.

This Weekly Reflective Sheet will assist the learners to develop their generic skills of literacy, numeracy, communications and quality awareness and will give learners an opportunity to develop their writing skills.

The learners will create a **Personal Dictionary** of new words, key words and terms relating to database applications. This Dictionary will be updated each week and kept in the Learning Diary.

The learners, as a group, will add words and terms to a **Key Word and Terminology Bank** in the classroom, relating to database applications. The learners will find words listed in text books, class notes, manufacturers' product information and websites.

Learners will complete a number of **Word Searches**. These are **Word Search 1** and **Word Search 2.** When they have gained sufficient practice and experience at these each learner will make up 1 (one) Word Quiz which will be completed by the group.

Learners will complete a multiple choice **Database Quiz** when the Learning Outcomes (LO) have been achieved.

Learners will include in their Learning Diary all the exercises, activities, and notes.

Generic Skill: Numeracy

Learners will practice using the **numeric keypad** identifying and locating all keys needed to carry out basic calculations to input numbers into a database.

Generic Skill: Teamwork and Communications

Learners will discuss the importance of teamwork with the instructor using the **teamwork guide**.

Learners will take part in a **teamwork exercise** designing and planning a project which will incorporate group discussion.

Generic Skill: Literacy and Quality Awareness

Learners will be given a report to proofread by checking for mistakes. Learners will reflect on the importance of proofreading.

Practical:

Learners will practice creating new databases using exercises **Create a New Database A, Create a New Database B** and **Create a New Database C**.

Learners will practise **Data Entry Skills** in tables, queries, reports and forms until the instructor is satisfied that a required standard is reached.

Learners will practice designing new tables using exercises **Design a New Table A, Design a New Table B** and **Design a New Table C**.

Learners will practise entering, editing and deleting skills until the instructor is satisfied that a required standard is reached. These are **Enter, Edit and Delete Data A; Enter, Edit and Delete Data B,** and **Enter, Edit and Delete Data C**.

Learners will practice creating data entry forms using exercises **Create Data Entry Form A, Create Data Entry Form B** and **Create Data Entry Form C**.

Learners will practice creating reports using exercises **Create a Report A, Create a Report B, Create a Report C** and **Create a Report D**.

Learners will practice creating queries using exercises **Create a Query A, Create a Query B, Create a Query C, Create a query D, Create a Query E** and **Create a Query F**.

Internet websites

Information can be accessed on the following suggested websites as of 4th February 2010:

- http://office.microsoft.com/en-us/training/HA102744471033.aspx or **http://tinyurl.com/2f33dkp** useful guidelines on getting stared with Microsoft Access Database, also some quiz questions on Access
- http://databases.about.com/od/access/Microsoft_Access.htm or **http://tinyurl.com/5dnql5** information on databases and very useful tutorials on how to use databases

Recommended by: _____

Manager Training Policy Development and Support

Approved by: _____

Director Training Policy Development and Support