

Microsoft Access 2007

Level 3



Overview

The course begins by teaching the student how to properly design and build databases with more than just two-table structures. The knowledge and skills acquired in previous levels to build relatively simple table structures will help them to tackle the more thorny issues associated with building fully relational and multiple table database structures. Once the tables are constructed and related the student is taught how to build more complex and advanced queries, forms, and reports from these structures. Advanced queries which aggregate, change and also analyse data are covered in this course. Automation concepts learnt in Level 2 are built on by teaching some more advanced macro techniques and a primer introduction to VBA is presented so that the student can see the major strengths and weaknesses of both macros and VBA.



Target Audience

This publication is primarily designed for people with a good working knowledge of Access who need to know how to perform more complex tasks in Microsoft Access 2007, creating sophisticated and advanced relational databases.



Pre-requisites

This publication assumes that you can create a database file, store and manage data. It would also be beneficial to have a general understanding of personal computers and the Windows operating system as you will be required to start applications, work with and copy files, and locate file folders.



Objectives

At the completion of Microsoft Access 2007 Level 3 you should be able to:

- create a relational database file with multiple tables
- set table relationships and join tables together
- design a relational database project
- create queries based on one or more tables
- create and work with aggregation queries
- create and use a series of action queries
- work with a number of macro techniques
- create some simple programming code using VBA



Course Duration is 1 day - Class style



Contents

The course focuses on practical work within Microsoft Access 2007 giving learners ample opportunity to use their newly acquired skills through a series of graded exercises.

Creating A Relational Database

- Creating A New Database File
- Creating Lookup Tables
- Defining A Primary Key
- Saving And Closing A Table
- Creating The Expense Type Table
- Creating The Transactions Table
- Creating The Details Table

Setting Table Relationships

- Understanding Table Relationships
- Understanding Lookup Relationships
- Looking Up The Employees Table
- Looking Up The Expense Types Table
- Viewing Table Relationships
- Understanding Table Joins
- Editing The Employee Table Join
- Editing The Expense Type Table Join
- Creating A New Join
- Creating A Relationships Report

Relational Database Design

- Designing A Relational Database
- Scoping The System
- Determining The Inputs
- Normalising A Database
- First Normal Form (1NF)
- Second Normal Form
- Second Normal Form – Case Study
- Third Normal Form (3NF)
- Database Indexing

Multi-Table Queries

- Understanding Relational Queries
- Creating A Relational Query Design
- Filtering A Relational Query
- Filtering Related Fields
- Adding More Tables And Fields
- Utilising Hidden Fields
- Creating A CrossTab Query

Aggregation Queries

- Creating An Aggregation Query
- Working With Aggregation Queries
- Multiple Aggregations
- Modifying Aggregation Headings
- Aggregating Calculated Fields
- Applying Criteria To Aggregations
- Understanding Nested Queries
- Creating An Assembly Query
- Creating The Nesting Query

Action Queries

- Creating A Make Table Query
- Using A Make Table Query
- Expressions And Update Queries
- Preparing An Update Query
- Running An Update Query
- Updating Using Expressions

- Running An Expression Based Update
- Creating A Delete Query
- Running A Delete Query
- Creating An Append Query
- Running An Append Query
- Turning Action Messages Off

Macro Techniques

- Creating A Print Macro
- Using Conditions To Enhance A Macro
- Creating A Sequence Of Conditions
- Understanding The Versatility Of MsgBox
- Using The MsgBox Function
- Reconfiguring A Message Box
- Using The InputBox Function

An Introduction To VBA

- Understanding VBA
- Coding VBA For An Event
- Running VBA Event Code
- MsgBox And InputBox
- Modifying An Existing Procedure
- Understanding The Modified Code
- Creating A Standard Module
- Running The Code
- Understanding The Loan Simulator Code
- Creating A Button For The Simulator
- Attaching The Simulator Code

Concluding Remarks