Access 2003

Stephen Moffat, The Mouse Training Company

Microsoft® Office

Access 2003

Stephen Moffat, The Mouse Training Company

Access 2003

Access 2003

© 2012 Stephen Moffat, The Mouse Training Company & bookboon.com

ISBN 978-87-403-0044-4

Contents

Introduction

Access 2003 is a powerful database application that allows users to Store data and retrieve the data to produce reports.

All graphics related to Microsoft in this book is in compliance with Microsoft guidelines and thus permitted by Microsoft.

How to use this guide

This manual should be used as a point of reference following attendance of the introductory level Access 2003 training course. It covers all the topics taught and aims to act as a support aid for any tasks carried out by the user after the course.

The manual is divided into sections, each section covering an aspect of the introductory course. The table of contents lists the page numbers of each section and the table of figures indicates the pages containing tables and diagrams.

Objectives

Sections begin with a list of objectives each with its own check box so that you can mark off those topics that you are familiar with following the training.

Instructions

Those who have already used an Access database before may not need to read explanations on what each command does, but would rather skip straight to the instructions to find out how to do it. Look out for the hand icon ☞ which precedes a list of instructions.

Keyboard

Keys are referred to throughout the manual in the following way:

[ENTER] – denotes the return or enter key, [DELETE] – denotes the Delete key and so on.

Where a command requires two keys to be pressed, the manual displays this as follows:

[CTRL][P] – this means press the letter "p" while holding down the Control key.

Commands

When a command is referred to in the manual, the following distinctions have been made:

When menu commands are referred to, the manual will refer you to the menu bar – E.g. "Choose File from the menu bar and then Print".

When dialog box options are referred to, the following style has been used for the text – "In the **Page Range** section of the Print dialog, click the **Current Page** option"

Dialog box buttons are shaded and boxed – "Click OK to close the Print dialog and launch the print."

Notes

Within each section, shading denotes any items that need further explanation or extra attention devoted to them. For example:

"Access will not let you close an object that you haven't already saved changes to without prompting you to save."

Section 1   Screen Layout

By the end of this section you will be able to:

- **Title Bar**
- **Menu Bar**
- **Toolbar**
- **Objects Bar**
- **Ask a Question**

1.1   Windows Concepts

Access is an application that runs under the Windows graphical user interface. When launched, Access sits in its own "window" – the grey box that surrounds the application elements. The window can be moved, sized, closed, minimised and maximised using the features common to the Windows environment – these are listed below:
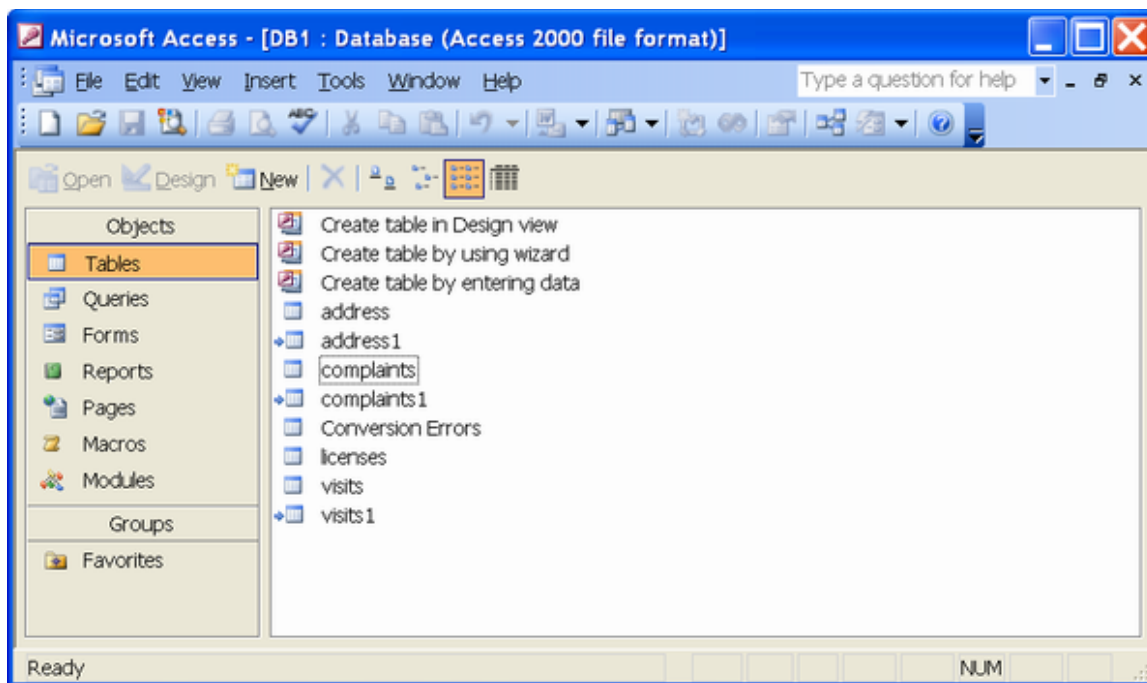
Window Border

The grey box that surrounds the Access screen when it is not maximised is called the window border. When the mouse is over the border, the pointer changes from a single to a double-headed arrow – clicking and dragging with this shape allows the window to be resized.

Title bar

The coloured bar that appears at the top of the Access window. The title bar tells you which application you are using and if the workbook you are in is maximised, it will also contain the name of the workbook. If the Access window is not maximised, by positioning the mouse over the title bar and clicking and dragging, you can move the Access window to a new location on the screen.

Maximise button

When working in a database, the Access screen contains two windows, an application window and a database window. You can maximise both windows to capitalise on the space you have on-screen. If you would like the window that your Access application is in to fill up the whole screen, click the outermost maximise button. You may find that the database you are in can still be bigger – click the inner maximise button to fill the remaining space within the Access application window.

Download free eBooks at bookboon.com

| | **Minimise button** | This button is very useful if you need to temporarily switch from Access into another application without closing Access down completely. Click the minimise button to shrink Access to an icon on the task bar, you will then be able to view other icons and applications you may wish to access. When you are finished and ready to continue, click the Access icon from the task bar to resume. The innermost minimise button will minimise the current workbook window. |

| | **Restore button** | This button only appears when a window is maximised. A maximised window has no border and you can't see what is behind it. If you want to put the window back inside its border so that you can move and size it, click the restore button. |

| **Close button** | | This button is used to close a window. If you click the close button for a database window (the innermost close button), you close the document; the outermost button will close the Access application. |

| | **Application Menu** | Located to the left of the Title Bar. When selected, it displays a pull-down menu with commands enabling you to resize or close the Access application. This can also be accessed by pressing [ALT][SPACEBAR].

Double click on this icon to close the application down. |

1.2   The Screen Layout

When a new database is created, the database window will display:
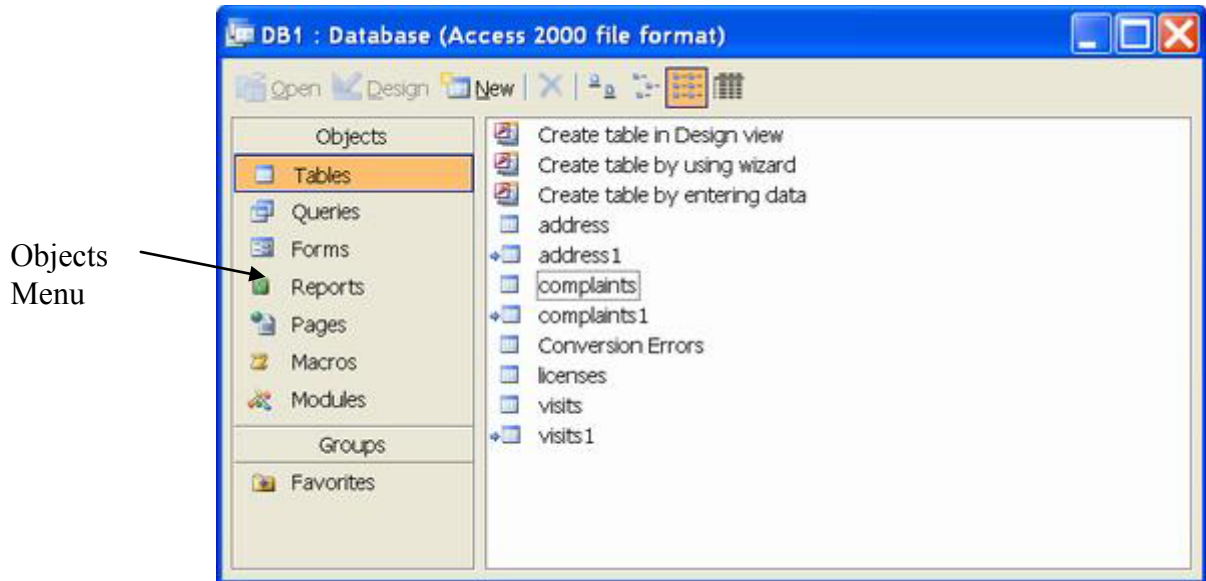
Objects
Menu

Database Window

The Database window allows database objects to be created and amended. You will notice that there are several object buttons at the right hand side of the database window: Tables, Queries, Forms, Reports, Pages, Macros, Macros, and Modules; this is the objects toolbar. If you would like to work with the object of each, click on the relevant button first. From there, all existing objects will be shown and clicking on New can create new ones**.**

Download free eBooks at bookboon.com

Menus

Access 2003 has two menus, the *menu bar* and *shortcut menu*. The menu bar displays all options available within Access and is accessed using the left mouse button. The shortcut menu however, only displays some of the more frequently used options and is accessed via the right mouse button.

☞   **To Select a Menu Bar Option**

Mouse

- Click on the menu title
- A pull-down menu will appear listing all options available.
- Choose the required menu option

Keyboard

- Press [Alt]+underlined letter of menu title
- Type the underlined character of the required option

☞   **To Select a Shortcut Menu Option**

Mouse

- Click the right mouse button on the required area
- A pull down menu will appear listing all options
- Choose the required option

Toolbars

Toolbars are a form of shortcut menu. They allow the user to carry out some of the most common functions quickly. They display a graphical representation of the tasks that the tools carry out, such as printing and saving.

In Access 2003 there are numerous separate toolbars available. In the Database window, one toolbar displays by default: the *Database* toolbar.

If the mouse pointer is left stationary over a tool, a 'tool tip' appears stating the use of the tool and a help prompt appears on the status bar describing the feature.

☞   **To Activate a Tool on the Toolbar**

Mouse

- Click the left mouse button on the required tool

☞   **To Display Other Toolbars**

Mouse

- Click the **right** mouse button on any toolbar currently displayed, e.g. on the Database toolbar
- Select the toolbar required by clicking on the tick box, e.g. Relationships

The same method is used to hide a toolbar.

1.3   Using Help

Access 2003 offers several ways of accessing the inbuilt Help system.

☞   **Using Contents and Index Help**

1. Select **Microsoft Access Help** on the **Help** menu. If the Assistant is turned off, the Help task pane appears.
2. In the Search for area, type the topic you require help on and click the green arrow
3. Select from the list of results displayed as hyperlinks

Using the Office Assistant

The Office Assistant can answer your questions, offer tips, and provide Help for a variety of features. The Assistant can display Help in the following ways:

Suggested Help, Help with wizards, Tips, Help Tips with Light Bulb and Messages.

☞   **Opening the Office Assistant:**

Mouse

1. Select Help, Microsoft Access Help.

Or

2. Click on the **Microsoft Access Help** ⬚ button.

If the Assistant isn't visible, click **Show the Office Assistant** on the **Help** menu.

☞   **Asking questions:**

Mouse

1. Type your question into the space provided.
2. Click on Search.

The Office Assistant will display a list of Help Topics. Click on the topic you are interested in.

☞   **Looking at Office Assistant Tips:**

The Assistant provides tips on how to use features or keyboard shortcuts more effectively.

Mouse

1. A tip is available when a yellow light bulb icon appears next to the Assistant. Click on this icon to display the tip.

If the Assistant is hidden when a tip is available, the **Microsoft Access Help** button shows a light bulb. If you want, you can have the Assistant display a tip each time you start Microsoft Access.

☞   **Using ScreenTips:**

Use ScreenTips to see information about different items on the screen.

1. To see ScreenTips for a dialog box option click on the Question Mark button at the top right corner of the dialog box.

Or

To see ScreenTips for a menu command, toolbar button or area of the screen, Select Help, What's this?

2. Click on the object you wish to find out about.

   If the dialog box does not have a Question Mark button look for a Help button or press [F1].

Ask a Question Box

```
┌─────────────────────────┬───┐
│ Expand Slide            │ ▼ │
└─────────────────────────┴───┘
```

Access 2003 provides a convenient new alternative to using the assistant, **Ask a Question Box**. You can get help by typing a question or phrase in to the Ask a Question Box that you will find in the upper-right corner of the application and then pressing Enter.

If you want to repeat a question you have already typed during the current session, you can simply select the question from the drop-down list on the Ask a Question Box.

☺   Useful Information

Maximise windows

You can maximise a window in any Microsoft application by double-clicking that window's title bar.

Help

Access has what is known as context sensitive help. When you have issued a command and are unsure what to do next, you can get help relevant to what you are doing by pressing [F1].

In dialog boxes, Access displays a ? button that you can click, turning your mouse into a help pointer. If you then click on any item in the dialog box that you are unsure of, Access will display a text box explaining what the dialog box element can be used for.

Notes

Section 2   Access Overview

Objectives

The following are discussed in this chapter

- **Tables**
- **Queries**
- **Forms**
- **Reports**
- **Macros**
- **Modules**
- **Naming Conventions**
- **Relational Databases**
- **Planning a database**

2.1   What is a database?

In the simplest sense, a *database* is a collection of records and files that are organised for a particular purpose. You might want to store all the names and addresses of your friends or customers. The main categories of information you might like stored would be:

First Name
Surname
Address
City
Telephone Number (W)

You get the idea… These main categories are called **Fields**

Having decided what fields you would like to have, you then need to add in every customer's details. These are called **Records**

Having done so, you would like to be able to challenge it in some way, e.g. I would like to know Bob Brown's telephone number; or a list of all the customers that live in London.

Nearly all modern database management systems store and handle information using the *relational* database management model. The name *relational* stems from the fact that each record in the database contains information *related* to a single subject and only that subject. A relational database stores its information by way of two-dimensional tables with the columns each being the fields you would like and each record being entered as a row.

In Access 2003 you have to first create the structure of your database by defining what fields you would like and what kind of data is going to be stored in each e.g. Text, numbers etc. Having done so, you can switch to *datasheet* view which looks exactly like a two dimensional table with your new fields heading each column. It is then up to you to go and enter all the records on a new row.

Access 2003 is software referred to as a RDBMS (relational database management system), which is software that provides all the data definition, data manipulation and data control features that you need to manage large volumes of data.

When you start Access, a database window is created that will allow you to create database objects.

Objects	Description
Tables	This is the core of the actual database that stores the information in rows and columns, Each table contains: *Fields*: These are basic categories of information you would like stored e.g. Name, Surname, Tel. No. In a table each fields is represented by a new column. *Records*: Each entry is entered as a record and is represented in a table by each row.

⊞ Customers : Table					
Customer ID	**FirstName**	**Surname**	**Address**	**City**	**Telephone no**
▶ 1	Joe	Bloggs	12 ABC Street	London	(0171) 768 7678
2	Lisa	Lane	56 Happy Street	London	(0171) 783 2343
3	Martin	Merry	87 DEF Road	Birginham	(0131) 029 2342
4	Janin	Jolly	93 Third Street	London	(0181) 347 2732
5	Michael	Ecstatic	92 Weird Lane	Reading	(0118) 4543 34
* (AutoNumber)					

Surname	**Telephone no**
▶ Bloggs	(0171) 768 7678
*	

Query	From the core table, one would want to challenge the database to acquire some meaningful information e.g. what is Joe Blogg's telephone number? A query is a structured question, which results in the display of selected data answering that question.

Form

A form is used for user input. It improves the user interface thereby making it easier for low level users to enter and input data. As people enter data through the form, the underlying table automatically is updated.

Report

A report is ultimately going to be viewed or printed. It seeks to present the table data in a presentable manner as well as providing summary information e.g. Total Sales, A graph representing growth etc.

Pages

This allows you to create web pages to access your data in your database. It requires that FrontPage Server Extensions be installed.

Macro	Set of commands to automate menu and keystroke processes
Modules	A module is essentially a collection of declarations, statements, and procedures stored together as Visual Basic code. Modules help add functionality and automation to your database.

2.2   Naming Conventions

Names of fields, controls, and objects in Microsoft Access:

- Can be up to 64 characters long.
- Can include any combination of letters, numbers, spaces, and special characters except a period (.), an exclamation point (!), an accent grave (`), and brackets ([ ]).
- Can't begin with leading spaces.
- Can't include control characters (ASCII values 0 through 31).
- Can't include a double quotation mark (") in table, view, or stored procedure names in a Microsoft Access project.

Although you can include spaces in field, control, and object names, most examples in the Microsoft Access documentation show field and control names without spaces because spaces in names can produce naming conflicts in Microsoft Visual Basic for Applications in some circumstances.

To more easily identify object types in the Database Container, prefixes are placed before the object name

Object Type	**Prefix**
Table	tbl
Query	qry
Form	frm
Report	Rpt
Macro	mcr

Eg The Customers table would be named tblCustomer, and the Customers form would be named frmCustomer

2.3   Planning a Database

Step 1: Task Analysis

Identify what tasks you would like to accomplish thereby helping you to decide what fields you would need in your database.

For Example: **Tasks** could be:

Record Customer details

Record Product Details

Record Customer Orders

Manage Inventory

Produce reports on Monthly Sales

Step 2: Data Analysis

From there you could decide what fields you would need i.e.

Customer Name   Product Name

Customer Address   Product Unit Cost

Customer Telephone Number   Product Sales Value

Product and Volume that Customer Ordered

Date, Invoice No. and Details of the Sale

Download free eBooks at bookboon.com

Step 3: Table Design

Data Redundancy

Once you know what fields you require, you need to construct well designed tables, which aim to keep **Data Redundancy** to a minimum. Data Redundancy is best explained in a situation where a company has several departments each having their own database with your address details. If you move, you may have to approach every department for your changed address and maybe even then, there is a department you don't know about. Several copies of the same information promote inconsistencies to occur. Rather have one table for which all departments access and then if a change needs to be made, it need only be changed once which would immediately be available to all departments.

Normalisation

You can imagine a table capturing sales information looking like the following:

Sale Date	Product Name	Customer	Customer Address
21/2/98	Ford Fiesta	Joe Bloggs	12 ABC Street, London
24/3/98	Corsa	Joe Bloggs	12 ABC Street, London
29/3/97	Jaguar	Lisa Locke	34 Happy Street, London
12/4/98	Rover	Joe Bloggs	12 ABC Street, London

The fourth field **Customer Address** has been written out repeatedly for every time the Customer Joe Bloggs buys a product. This is obviously a waste of disk space and will tend to slow your database down.

The Answer

Rather have several tables that are linked to each other by common fields.

Primary Key

Each table must have at least one field that uniquely identifies each record. The easiest in Access is using an Autonumber field data type. It would be an employee number, staff number, a combination of both the surname and initial fields etc.

In the following example, two tables have been created, one for customers and the other for the actual day to day sales. Both tables have a unique identifier or *key* that identifies each customer and each sale. The sales table was cleverly created such that the actual customer details are not repeated, but rather one field referring to the **Customer ID** is used. In this way the two tables can be linked.

Notes

Section 3   Creating a Database

Objectives

The following are covered in this chapter

- **Starting and naming a database**
- **Creating a table in Design View**
- **Defining Field Names, Data Types**
- **Setting up a primary key**
- **Field Properties**
- **Input Masks**
- **Validation Rule and Text**
- **Inserting, Deleting, Moving, & Renaming Fields**
- **Saving a Table**
- **Creating a table using Table Wizard**

Download free eBooks at bookboon.com

3.1 Starting and naming a database

☞ To create a database

- Choose File, New…

New Task Pane
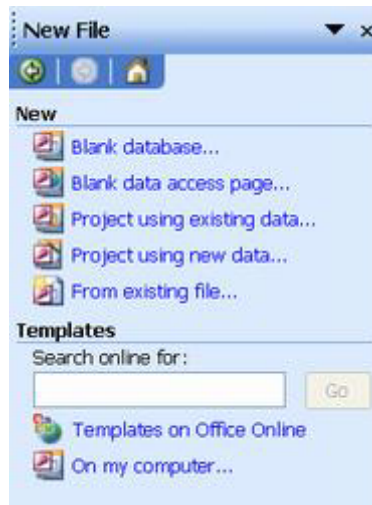
- Access will display the Task Pane
- Choose the Blank Database option
- Access will prompt you to name the database and choose a location in to save the file into
- Select the folder to save in by double-clicking on the appropriate folder(s)
- Enter the file name
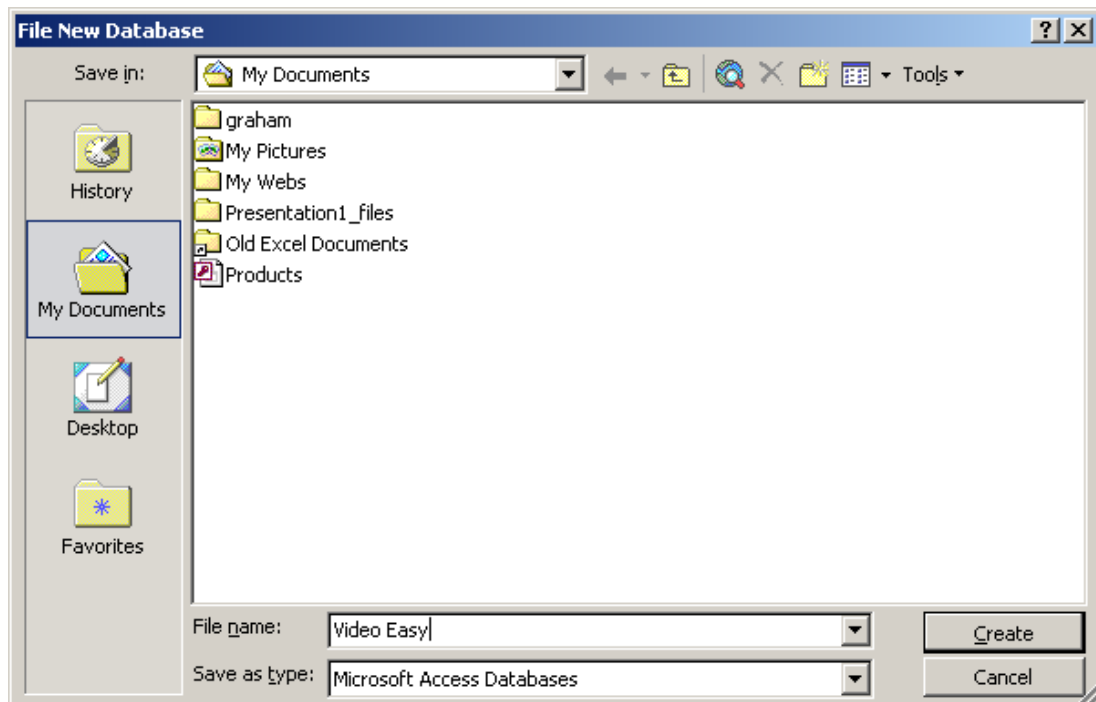
- Choose Create

The blank Database window displays allowing database objects to be created.
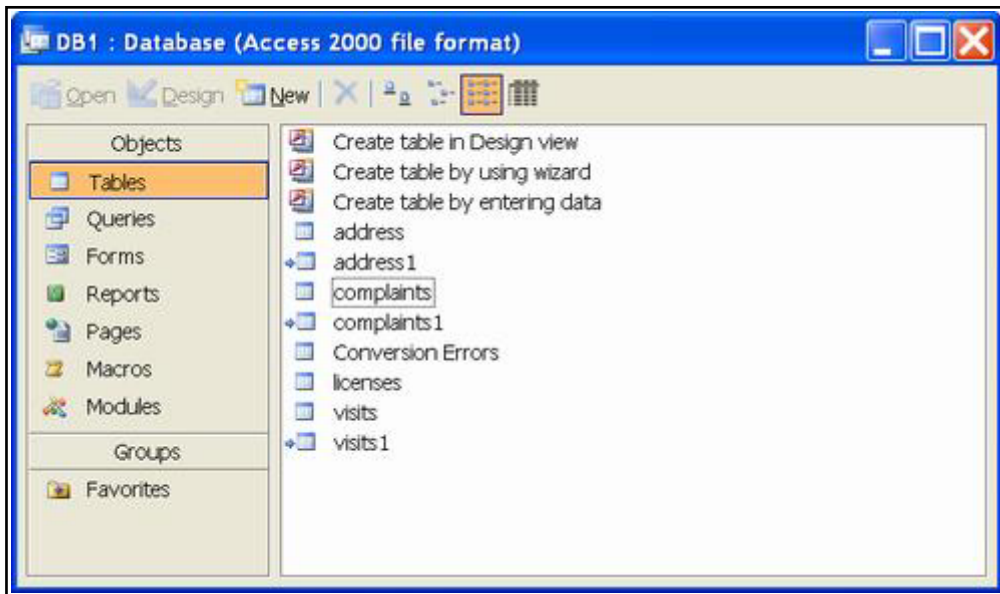
If the user opts to create a new database using the Database Wizard, Access prompts the user to choose the template required, e.g. Book Collection, give the database a name and select the relevant options from the *Database Wizard Window*; these options will vary depending on the template chosen.
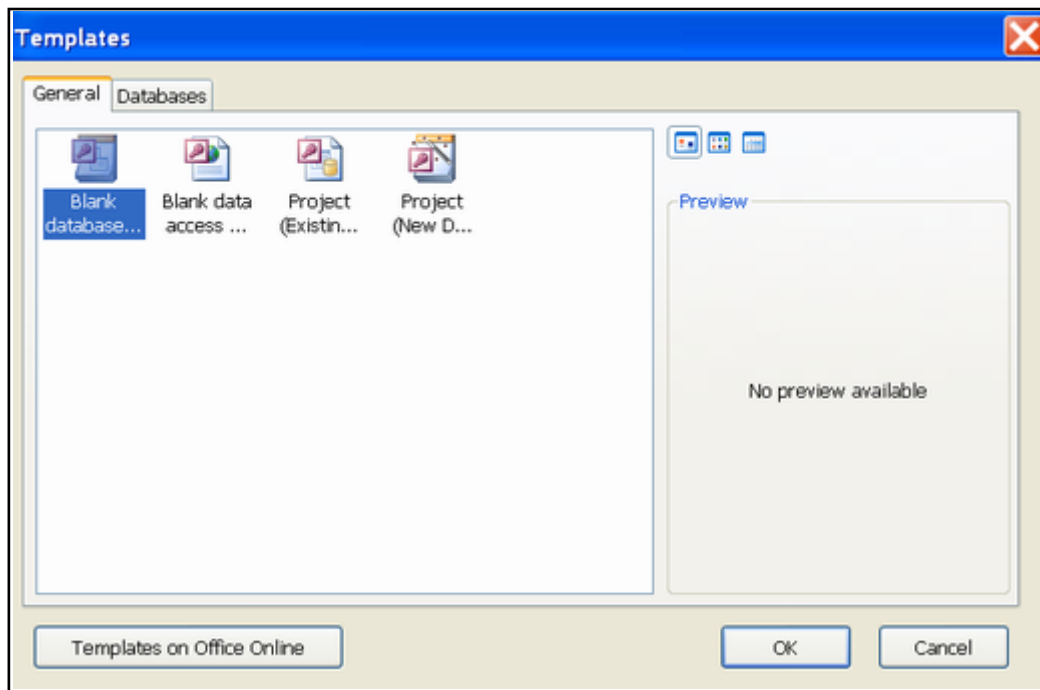
☞   To create a database using Templates

- Choose File, New…
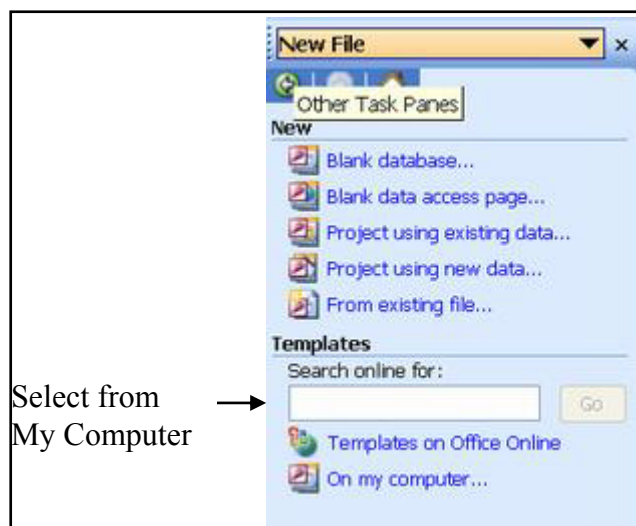
- Access will display the Task Pane
- Choose the On my computer option

- Access will will display the templates window
- Double click the Template database to produce
- Enter the file name
- Answer the wizard's questions
- Choose Next and then choose Finish

The templates dialogue

3.2   Creating a Table

A Table is a collection of data about a specific topic, e.g.

Fields

ID	Supplier Id	Category Id	Product Name	Stock
1	3	PROD	Oranges	15
2	3	MEAT	Beef	29
3	4	SEAF	Calamari	22
4	4	SEAF	Oysters	14
5	5	DAIR	Milk	12
6	5	DAIR	Yoghurt	25
7	6	DAIR	Cottage Cheese	6
(AutoNumber)	0			0

Product Information : Table

Records

Common Field that
Relates the two tables

Supplier List : Table

ID	Supplier ID	Supplier Name
1	3	Mainey PLC
2	4	Thomson Limited
3	5	Lester & Co
4	6	Barrets Limited
(AutoNumber)	0	

The **Products** table contains information about products and the **Suppliers** table contains information about the companies that supply products. Tables organise data into columns, called *Fields*, and rows, called *records*. Because these two tables have been well designed such that there is a common field in both, these two tables can be linked together. In this way, we can find out information such as that **Oranges** were supplied by **Mainey PLC**

When creating a table or viewing an existing table, the user has to choose a view the table should display in; the *Design View* to display the table structure or the *Datasheet View* to display table records.

☞   **To Create a Table in the Design View**

Mouse

- In the Database windows, Choose the **Tables** button
- Double Click **Create a table in Design View**
- The table window will then appear

☞   **To add fields to a table**

- Enter Field Name
- Choose the required data type
- Type a description (this is optional but recommended)

Field Name	Data Type	Description
Product Code	Text	
Stock Item	Text	
Price	Currency	
Last Delivered	Date/Time	
Number in Stock	Number	

- Repeat the above steps for all the fieldnames required
  When typing fieldnames press the [TAB] or [ENTER] keys to move to the next field and [SHIFT][TAB] to move to the previous field.

Field Names

This is the name of a field. Can be up to 64 characters long and can include any combination of letters, numbers, spaces, and special characters except a full stop (.), and exclamation mark (!), an accent grave (') and brackets ().

Data Type

Specifies the type of data to be entered in a field. Below is a list and description of all data types allowed in an Access 2003 table

Type	Stores
Text	Text or combinations of text and numbers, as well as numbers that do not require calculations, such as phone numbers. (Maximum 255 alphanumeric characters, 50 is the default)
Memo	Lengthy text or combinations of text and numbers – up to 64,000 characters
Number	Numeric data used in mathematical calculations; six formats available to choose from
Date/Time	Date and time values for the years 100 through 999; four data and three time formats to choose from
Currency	Currency values and numeric data used in mathematical calculations involving data with one to four decimal places – accurate to 15 digits on the left side of the decimal separator
AutoNumber	A unique sequential (incremented by 1) number or random number assigned by Access 2003 whenever a new record is added to a table. (AutoNumber fields cannot be updated)
Yes/No	Yes and No values and fields that contain only one of two values – formats available are Yes/No, True/False, On/Off
OLE Object	An object such as a Word document or an Excel spreadsheet, Graphics, Sounds, or other binary data, linked to or embedded in an Access 2003 table
Lookup Wizard	Creates a field that allows the user to choose a value from another table or from a list of values – Choosing this option in the Data Type list starts the Lookup Wizard to define the data type

Field Description

This clarifies the context of the field. This makes it easier for anyone else to understand your database. A description is optional although is a sign of good database design. It can be 255 characters maximum

3.3   Setting a Primary Key

Every table must have at least one field that **uniquely** identifies each record. This is called the *Primary Key.* It is essential if one table is going to be linked to another. It is used as a main index to associate data between related tables and speeds data retrieval, sort and search operations.

Examples will be:

   For a staff record system – an Employee Number

   For your Bank accounts – your Bank Account Number

In all these situations, there is one identifier that no other person has. In this way no conflicts between records will occur e.g. Surnames would not be an appropriate key as the likelihood of someone else having the same surname is very high.

☞ **To Add a Primary Key**

Mouse

- Choose the required field
- Click

Menu

- Choose the required field
- Choose Edit, Primary Key

Or

Click the right mouse button on the required field, choose Primary Key
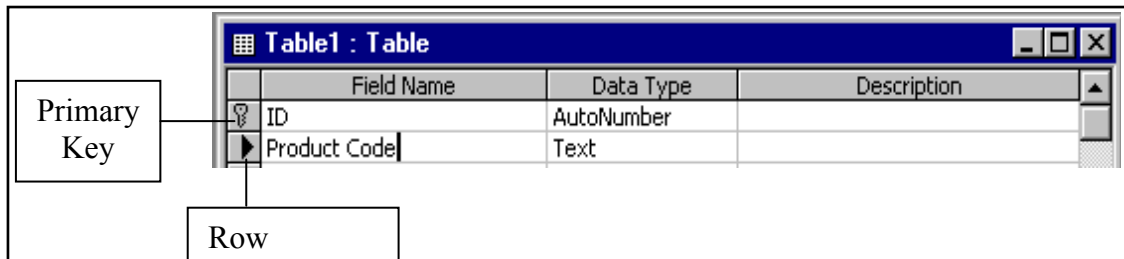
Multiple primary keys may be set by selecting each row and following the above steps. To select multiple rows, hold the [CTRL] or [SHIFT] keys whilst clicking.

☞ **To Modify the Primary Key**

Mouse

- Choose the required field
- Click ⬚

Menu

- Choose the required field
- Choose Edit, Primary Key

Or

Click the right mouse button on the required field, choose Primary Key

3.4   Field Properties

Field Properties determines the look and behaviour of field data. Field properties change according to the data type.
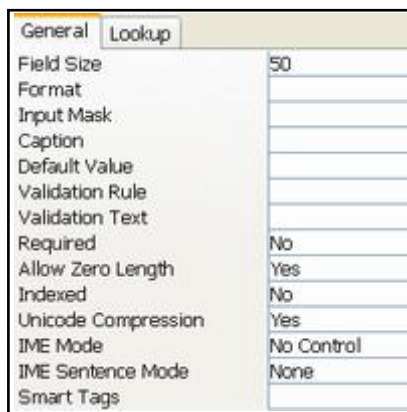
Input Masks

This is a format that consists of literal display characters (such as parentheses, periods, and hyphens) and mask characters that specify where data is to be entered as well as what kind of data and how many characters are allowed. You could create an input mask for a telephone number to include the parenthesis and any prefix

☞   To include an input for a field in Design View of a Table

- Open a table in Design view.
- In the upper portion of the window, click the field you want to define an input mask for.
- In the lower portion of the window, do one of the following:
- Click the **Build** button next to the **Input Mask** property box to start the Input Mask Wizard, and then follow the instructions in the wizard dialog boxes.
- Type the input mask definition. For more information on defining the input mask, click the **Input Mask** property box and press F1. You must type the input mask definition manually for Number and Currency fields.

Character	Description
0	Digit (0 through 9, entry required; plus [+] and minus [-] signs not allowed).
9	Digit or space (entry not required; plus and minus signs not allowed).
#	Digit or space (entry not required; blank positions converted to spaces, plus and minus signs allowed).
L	Letter (A through Z, entry required).
?	Letter (A through Z, entry optional).
A	Letter or digit (entry required).
a	Letter or digit (entry optional).

The following table shows some useful input mask definitions and examples of values you can enter into them.

Input mask definition	Examples of values
(0000) 000-0000	(0208) 531-9654
(999) 999-9999	(206) 555-0248
	() 555-0248
(000) AAA-AAAA	(206) 555-TELE
#999	-20
	2000
>L????L?000L0	GREENGR339M3
	MAY R 452B7
>L0L 0L0	T2F 8M4

Validation Rule

A field validation rule is used to check the value entered into a field as the user leaves the field. Only data that obeys this rule is a valid entry for this field

☞   To create a Validation Rule

- In the upper portion of the window, click the field you want to define a validation rule for.
- In the lower portion of the window, click the **Validation Rule** property box, and then type the validation rule, or click the **Build** button ⋯ to create the validation rule using the Expression Builder.

Download free eBooks at bookboon.com

For example, you could define the validation expression **">9"** for a Quantity field to prevent a user from placing an order for fewer than 10 units, or **between 0 and 100** to ensure a number between 0 and 100 is entered.

Validation Text

This is the text message that you wish to display to the user if there is an invalid text entry made in the field, which has a validation rule property controlling it.

☞   To create a Validation Text

1. In the **Validation Text** property box, type the message that you want displayed when the rule is broken.

    For example, for the validation expression ">9", you could enter "You must order 10 or more units."

    *If you set a validation rule in a field that contains data, Microsoft Access will ask if you want to apply the new rule to existing data when you save the table. If you click **Yes**, Access will warn you when existing data violates the validation rule.*

3.5   Other Field Properties

Caption

If you don't specify a caption for a table field, the field's **Field Name** property setting will be used as the caption of a label attached to a control or as the column heading in Datasheet view. By inserting a caption, it allows the user to store the information using perhaps an unwieldy field name, but display the data under its caption.

Default Value

Specifies a **String** value that is automatically entered in a field when a new record is created. For example, in an Addresses table you can set the default value for the City field to London. When users add a record to the table, they can either accept this value or enter the name of a different city.

Required

You can use the **Required** property to specify whether a value is required in a field. If this property is set to Yes, when you enter data in a record, you must enter a value in the field, and the value cannot be **Null**. For example, you might want to be sure that a LastName control has a value for each record.

> *Note: The **Required** property doesn't apply to AutoNumber fields.*

Indexed

You can use the **Indexed** property to set a single-field index. An index speeds up queries on the indexed fields as well as sorting and grouping operations. For example, if you search for specific employee names in a LastName field, you can create an index for this field to speed up the search for a specific name.

3.6   Editing the Table Structure

Inserting, Deleting, Moving, & Renaming Fields

Fieldnames can be overtyped or edited. Fields can be deleted, inserted and moved to another location. To Delete a Field

Mouse

- In the Design View, select the field row by clicking on the row selector
- Click

Keyboard

- In the Design View, select the field row by clicking on the row selector
- Press [Delete]

☞   **To Insert a Field**

Mouse

- In the Design View, select the field row by clicking on the row selector
- Click

Keyboard

- In the Design View, select the field row by clicking on the row selector
- Press [Insert]

☞   **To Move a Field**

Mouse

- In the Design View, select the row selector
- Click and drag to the new location
- Release the mouse button
  If changes are made to the table structure ensure the table is resaved by clicking

☞   To Delete Characters in a Fieldname

Mouse

- In the Design View, click the mouse where the design is to begin
- Press [Backspace] to delete any characters to the left of the insertion point

Or

- Press [Delete] to delete any characters to the right of the insertion point

☞   **To Insert Characters in a Fieldname**

Mouse

- In the Design View, Click the mouse where text is to be inserted
- Type the required text

☞   **To Overtype a Fieldname**

Mouse

- In the Design View, select the fieldname by clicking on the left side of the field
- Type the required text

3.7   Saving Tables

It is important to save your table and also all subsequent changes to that table. The first time you save your table structure you will prompted to name the table.

The design of a table must be saved prior to data entry.

☞   **To Save an Access Table**

Mouse

- In the Design or Datasheet View, click
- You will be prompted to name your table
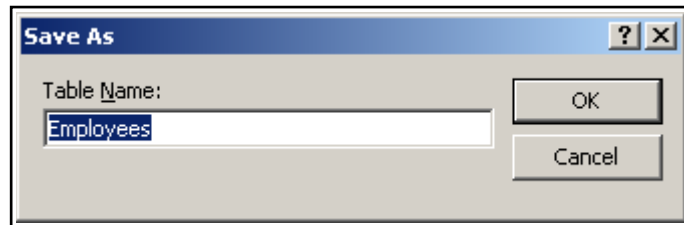
- A maximum of 64 characters is available and spaces can be included.
- Choose OK

Menu

- Choose File, Save
- Type a name
- A maximum of 64 characters is available and spaces can be included.
- Choose OK

If you have not set up a primary key field in you table, when you save your table you will be prompted with the following dialogue box

- Choose Yes, to allow Access to create a primary key with data type Auto number.
- Choose No, to allow you to save your table with out a primary key (it is possible to set up a primary key at any later stage)
- Choose Cancel, to allow you to return to your table design **without** saving your table

3.8   Creating a Table using a Table Wizard

☞   **To create a table using a wizard**

- Double click the "Create table using the wizard" option located in the tables objects
- Choose the Business or Personal options to view sample table fields, as shown below

- Choose the sample fields and select the arrows to move the fields into your new table.
- Choose next to progress to the next step of the wizard.
- Follow the directions in the **Table Wizard** dialog boxes.
   Note: If you want to modify or extend the resulting table, you can do so in Design view when you have finished using the Table Wizard.

Notes

Section 4

Objectives

The following are discussed in this chapter

- **Switching Views in Access**
- **Adding new records**
- **Modifying records**
- **Copying records**
- **Deleting records**
- **Multiple Undo's**
- **Finding and Replacing Data**

Download free eBooks at bookboon.com

4.1   Switch between Views of a Table

After a table has been opened, the users can switch between two views: Design View to create and modify the structure of a table, or Datasheet View to view, add, delete, and edit data in a table.

☞   **To Switch Between Views**

Mouse

- Click on the down arrow next to view icon
- Choose the view required, e.g. Design View
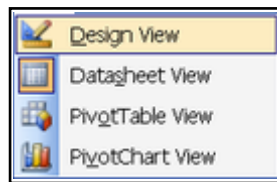
Menu

- Choose View, Table Design

Or

Choose View, Datasheet

4.2   Adding New Records

Once the table structure has been designed and saved, users can then enter data into the table. Data can be entered in the Datasheet View or Form view.

☞   **To Enter Data in the Datasheet View**

Keyboard

- In the Datasheet View, type the data into the record
- A pencil indicator displays to the left of the record.
- Use [Tab] or [enter] keys to move from field to field and [Shift]+[Tab] to move to previous fields.

Id	Client ID	Company Name	Street	Town	Postcode
1	5	Rip Off Ltd	221B Baker Street	London	LA3 5GT
2	67	Dodgy Group	61 ABC Street	Bristol	TS6 5NT
3	13	Rejector Ltd	67 High Street	Manchester	MF5 4TS
4	50	Crooks Inc	874 Broadway	Liverpool	LA6 7TT
(AutoNumber)	0				

- Press [enter] at the end of the record

The pencil indicator disappears indicating that the record is now saved.

When data is entered in the datasheet, no further saving is required.

4.3   Selecting Fields & Records in Datasheet View

In order to edit table data it is necessary to select fields and records

☞   **To Select Table Data**

Mouse

Selection	Action
Field Data	Click and drag across data
Entire Field	Click on the field selector
Record	Click on record selector
Multiple Records	Click first record selector and drag to last selector
	Or
	Click on first record selector and [SHIFT] and click on last selector
All Records	Click on Datasheet Selector
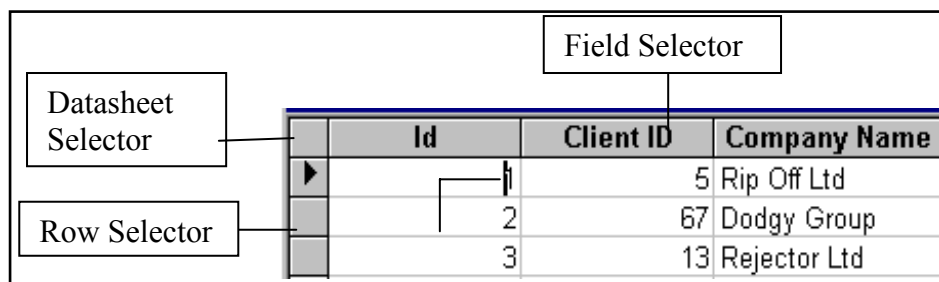
☞   **To Select a Record**

Menu

- Choose Edit, Select Record

☞   **To Select all Records**

Menu

- Choose Edit, Select All Records

4.4   Editing Table Data

Field data can be edited in a number of ways

☞   **To Edit Table Data**

Mouse

- Select data
- Type data

☞   **To Delete Individual Characters**

Mouse

- Position the insertion point where deletion is to begin
- Press [Backspace] to delete any characters to the left of the position point

Or

Press [DELETE] to delete any characters to the right of the insertion point

☞   **To Insert Individual Characters**

Mouse

- Position the insertion point where text is to be inserted
- Type the required text

Editing Memo/Large Fields

Memo or large fields can also be edited

☞   **To Edit Memo/Large Fields**

Mouse

- Position the insertion point in the field
- Press [Shift]+[F2]
- The Zoom dialogue box appears displaying the field text
- Type/edit data
- Choose OK

4.5   Moving Around a Table

The Keyboard or mouse can be used to move around table data quickly and efficiently.

Keyboard

Key	Action
[←]	One field left
[→]	One field right
[↑]	One record up
[↓]	One record down
[HOME]	Beginning of record
[END]	End of record
[CTRL]+[HOME]	First field of first record
[CTRL]+[END]	Last field of last record
[PAGE UP]	One screen up
[PAGE DOWN]	One screen down
[CTRL]+[PAGE UP]	Left one screen
[CTRL]+[PAGE DOWN]	Right one screen

Mouse

- Click with the left mouse button on the record required
- If the required record or field is out of view, use the *Scroll Bars* to display the relevant record.

Or

Download free eBooks at bookboon.com

Click on the navigation buttons at the bottom of the screen
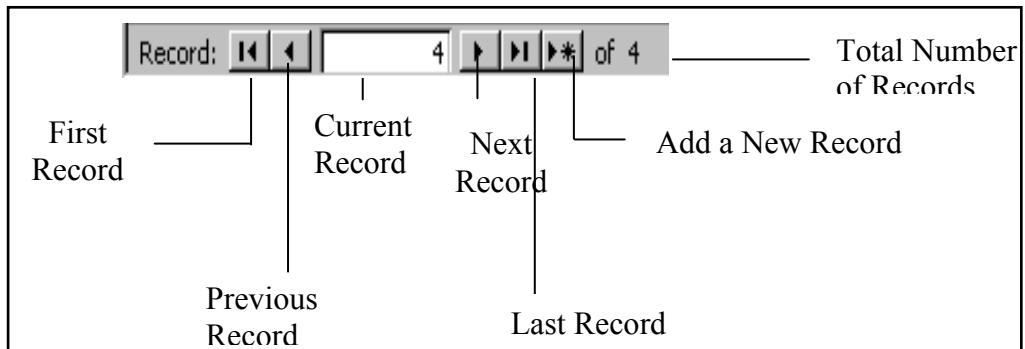
☞ **To Locate a Specific Record**

Menu

- Choose Edit, Go To
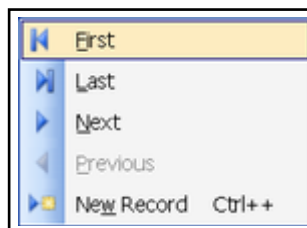
- Choose the required record

Keyboard

- Press [F5]
- Type the record number required
- Press [enter]

4.6   The Undo/Redo Command

Access keeps track of all editing and formatting changes. If a mistake is made, Access allows that action be undone. Only the last process is remembered.

☞ **To Undo**

Mouse

- Click

Menu

- Choose Edit, Undo

4.7   Spell Checking Feature

The *spelling* feature checks spelling of text entries in a table, query or form in Datasheet view or selected text in a text box in Form view. The spell checker highlights any incorrect spellings, duplications and irregular capitalisations and alternative suggestions are displayed.

☞   **To Check for Spelling Errors**

Menu

- In the Datasheet view, select the records, columns, fields, or text within a field to be spell checked
- Choose Tools, Spelling
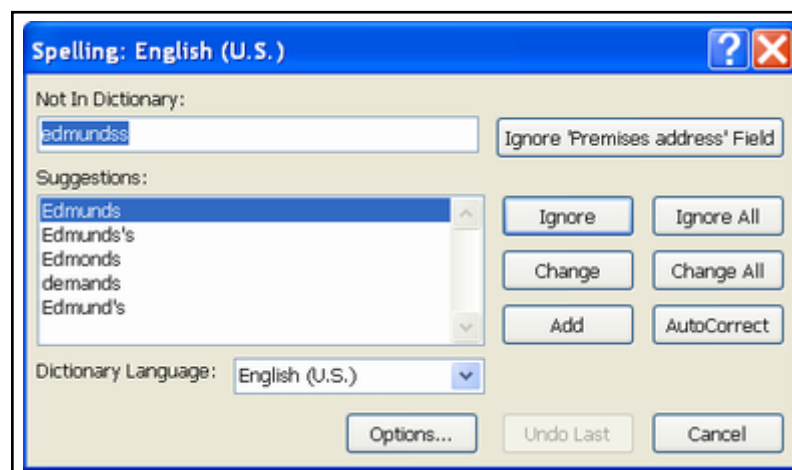
Commands	Description
Ignore ' ' Field	Leaves the whole field unchanged
Ignore	Leaves the word unchanged
Ignore All	Leaves the word unchanged throughout the selection
Change	Changes the word to the word in the Change To box
Change All	Changes the word throughout the selection to the word in the Change To box
Add	Adds the word to the dictionary
AutoCorrect	Adds the word to the list of words and phrases in the AutoCorrect feature

Mouse

- In the Datasheet view, select the records, columns, fields, or text within a field to be spell checked
- Click
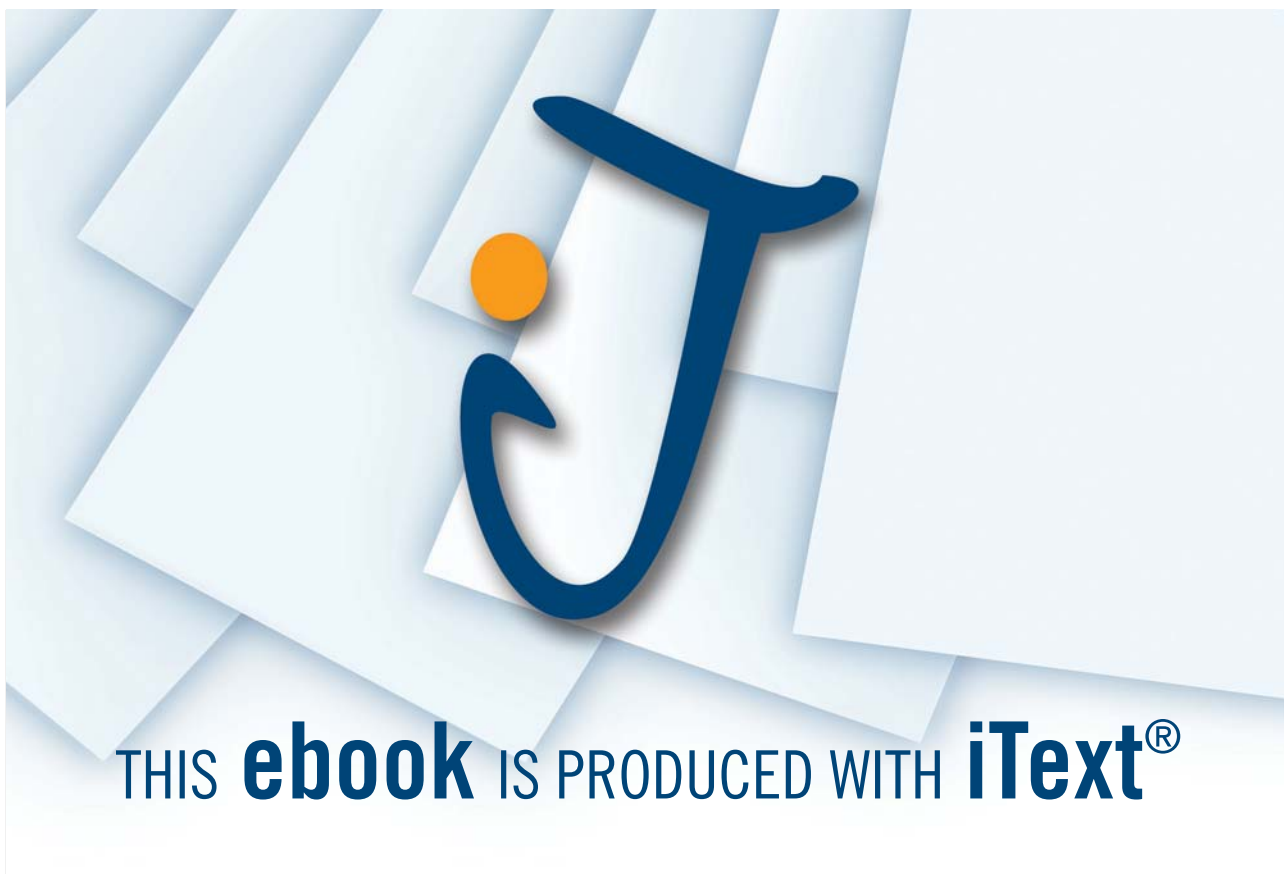
4.8   Searching & Replacing Information

The *find* feature can be used to quickly search for data in a current field or throughout a Datasheet, Query or Form.

☞   **To Search**

Menu

- Choose Edit, Find
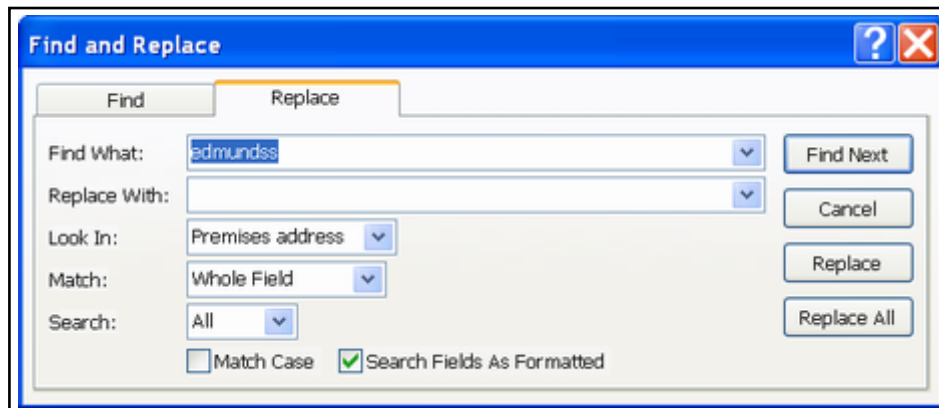
- Type the value to find
- Choose the options required
- Wildcards can be used in place of text/numbers:

Type	Description
*	Matches any characters, e.g. wh* finds what, white or why
?	Matches any single character, e.g. b?ll finds ball, bell or bill
#	Matches any single digit, e.g. 1#3 finds 103, 113 and 123
[ ]	Matches any single character within brackets, e.g. b[ae]ll finds ball, bell but not bill
!	Matches any single character not in the list, e.g. b[!ae]ll finds bill, bull but not bell or ball
-	Matches any one of a range of characters, e.g. b[a-c]d finds bad, bbd and bcd

- On completion, choose Close

Mouse

- Click
- Follow steps 2 to 4 as menu method

Keyboard

- Press [Ctrl]+[F]
- Follow steps 2 to 4 as menu method

4.9   Searching and Replacing Data

Values can be located and changed quickly throughout the datasheet.

☞   **To Search and Replace Data**

Menu

- Choose Edit, Replace
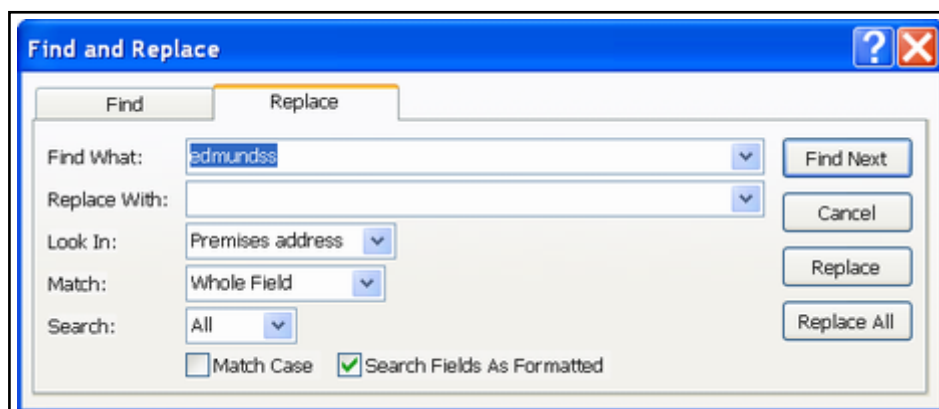
- Type value to find
- Type replacement value
- Choose Find Next to search for the next occurrence of the text
- Choose Replace to replace the **Find What text** with the **Replace With text**
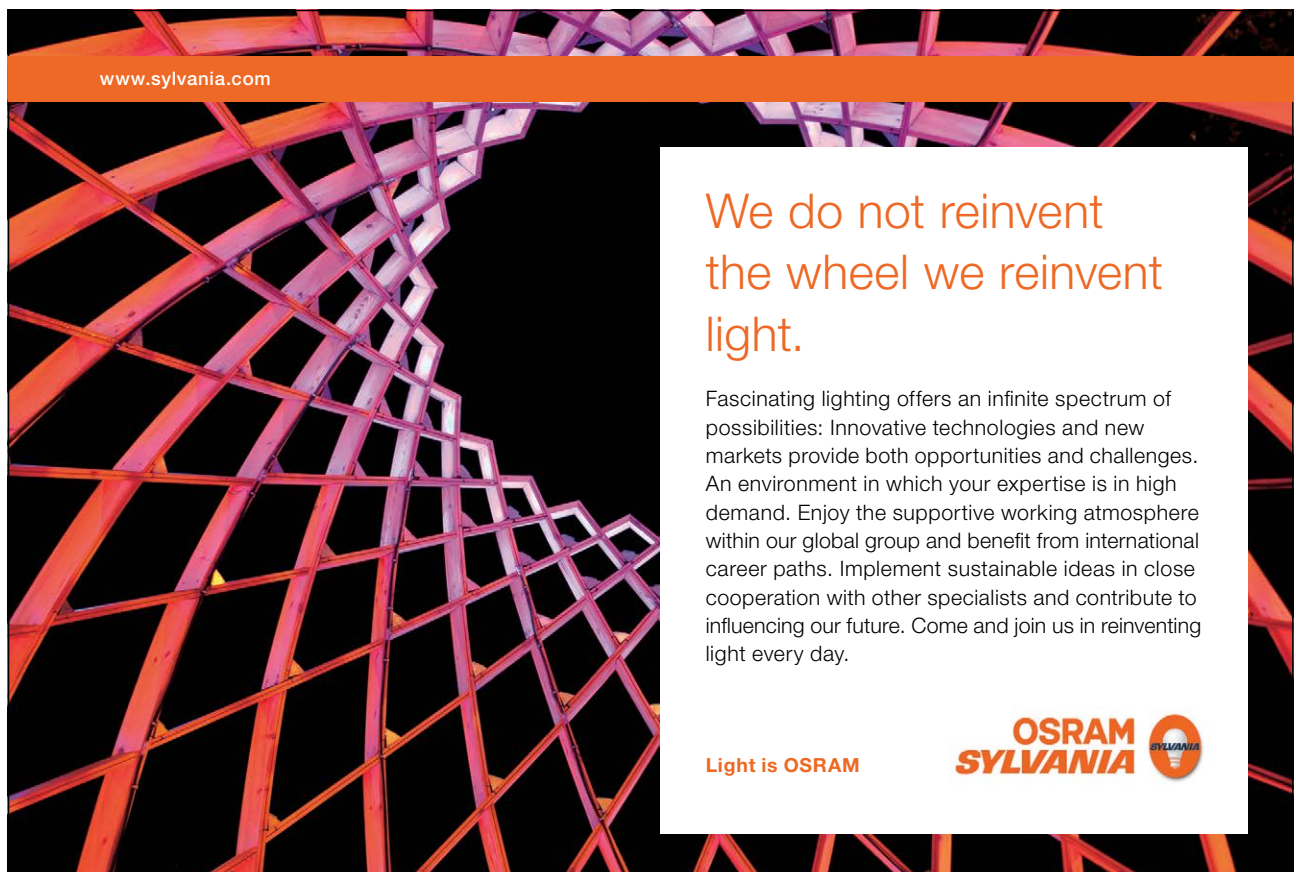
Or

Choose Replace All to replace every occurrence of the **Find What Text** with the **Replace With text**

- If Replace All is chosen, Access prompts the user that they will not be able to undo:
- Choose Yes to continue
- On completion, choose Close

Keyboard

- Press [Ctrl]+[H]
- Follow steps 2 to 7 as menu method

Download free eBooks at bookboon.com

Notes

Section 5   Table Properties

Objectives

The following are discussed in this chapter

- **Changing font**
- **Resizing and repositioning columns**
- **Freezing and Unhiding columns**
- **Sorting**

Download free eBooks at bookboon.com

Click on the ad to read more

5.1   Changing the Table Appearance

There are many ways in which the user can change the appearance of a table, e.g. change the font, adjust the column width and row height, alter column order, manipulate table gridlines, hide columns, freeze columns and sort the columns into ascending or descending order.

Changing the Font

Changing the *font* will apply a type of style to the entire table, not just selected records or fields.

☞   **To Change the Font**

Menu

- In the Datasheet View, Choose Format, Font
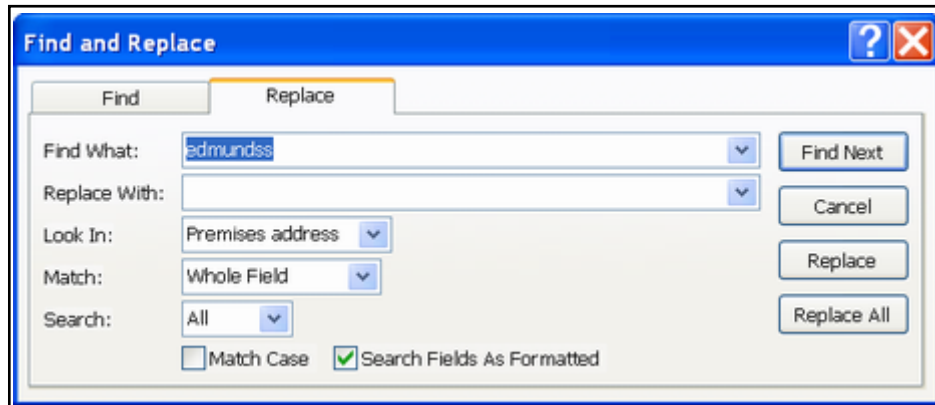
- Choose the required formats
- Choose OK

Displaying Gridlines

Gridlines are automatically displayed in the Datasheet but can be turned off if required.

☞   **To Format Gridlines**

Menu

- Choose Format Datasheet
- Choose the formats required
- Choose OK

Adjusting the Column Width

The standard *column width* in an Access table is set to 15.4111. This may be altered through the menu or with the mouse.

☞   **To Change the Column Width**

Menu

- Select the column(s)
- Position the mouse on the line to the right of the field name

Company Name	Street	Town
Rip Off Ltd	221B Baker Street	London
Dodgy Group	61 ABC Street	Bristol
Rejector Ltd	67 High Street	Manchester
Crooks Inc	874 Broadway	Liverpool

- The mouse pointer changes shape
- Click and drag right to increase or left to decrease the column width

Or

Double-click to adjust the width to the longest entry in the column

Menu

- Select the column(s)
- Choose Format, Column Width

Or

Click the right mouse button on the selected column, choose Column Width

- Type a measurement
- Choose OK

5.2   Modifying the Row Height

The standard *row height* in an Access table is 12.75. This may be altered through the menu or using the mouse. When changing the row height, all rows in the table are affected.

☞   **To Modify the Row Height**

Mouse

- Position the mouse between two record selectors at the left side of the datasheet
- The mouse pointer changes shape
- Click and drag down to increase

Or

Click and drag up to decrease the row height

Menu

- Choose Format, Row Height

Or

Click the right mouse button on the row indicator, choose Row Height

- Type a measurement
- Choose OK

The Undo feature is not available when modifying the row height. To undo changes, close the datasheet, choose **No** *when prompted to save layout changes.*

Inserting /Deleting Columns and Records

Records and Columns can be *inserted* and *deleted* in a table whenever necessary.

☞ **To Insert a Column**

Menu

Download free eBooks at bookboon.com

- Select the column
- Choose Insert, Column

Or

Click the right mouse button on the selected column, choose Insert Column

The inserted column can be renamed.

☞ **To Rename a Column / Fields**

Mouse

- Double-click on the column heading
- Type fieldname required
- Press [enter]

Menu

- Select the column
- Choose Format, Rename Column

Or

Click the right mouse button on the selected column, choose Rename Column

- Type fieldname required
- Press [enter]

☞ **To Delete a Column**

Menu

- Select the column
- Choose Edit, Delete Column

Or

Click the right mouse button on the selected column, choose Delete Column

- Access prompts for confirmation
- Choose Yes

☞   **To Insert a New Record**

Mouse

- Click ▶✳

- The new record is inserted at the bottom of the table.

Menu

- Choose Insert, Record

  The new record is inserted at the bottom of the table.

  A new record cannot be inserted in the middle of a table.

☞   **To Delete a Record**

Mouse

- Select the record
- Click ✗
- Access prompts for confirmation
- Choose Yes

Menu

- Select the record
- Choose Edit, Delete
- Access prompts for confirmation
- Choose Yes

5.3   Altering Column Order

The order of columns in a table is determined by the order of fieldnames in the Design View. This can be changed in the Datasheet View.

☞   **To Alter the Column Order**

Mouse

- Select the column
- Click on the field selector and drag the column to its new position
- A vertical bar between columns indicates the column destination.
- Release the mouse

5.4   Freezing Columns

Columns can be *frozen* on the left side of the windows so that they remain visible during scrolling.

☞   **To Freeze a Column**

Menu

- Select the column(s)
- Choose Format, Freeze Columns

Or

Click the right mouse button on the selected column, choose Freeze Columns

The column(s) will now display on the left side of the table even if the user scrolls to the right edge of the table.

☞   **To Unfreeze a Column**

Menu

- Choose Format, Unfreeze All Columns
- When columns are unfrozen, they remain in the same order they were in when frozen.

Hiding Columns

Field data can be *hidden* for confidentiality purposes.

☞ **To Hide a Column**

Menu

- Select the column
- Choose Format, Hide Columns

Or

   Click the right mouse button on the selected column, choose Hide Columns

☞ **To Unhide a Column**

Menu

- Choose Format, Unhide Columns
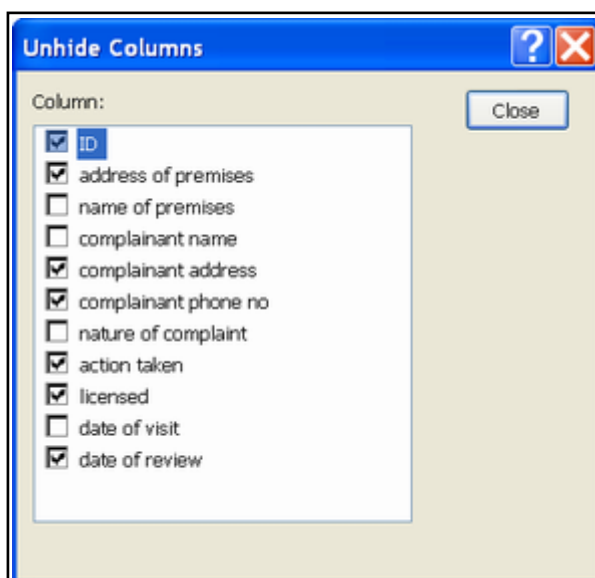
- Choose the tick box required
- Choose Close

5.5   Sorting Data in a Table

Once all the information has been entered into the table, it is possible to *sort* or rearrange the data in some kind of order in case e.g. you want to make a printout or simply view it in a meaningful way. If an Autonumber fields has been created to be used as a key, the entire table will sort by the criteria you ask for and hence will be out of order. This does not affect starting a new record, as it will just generate the next available number.

☞   **To Sort Data**

Menu

- In the Datasheet View, select the column(s) to sort
- Choose Records, Sort
- Choose Ascending

Or

   Choose Descending

Mouse

- In the Datasheet View, select the column(s) to sort
- To sort in ascending order, click

Or

   To sort in descending order, click

- Access sorts records starting from the leftmost selected column.
   Subsequent sorts replace previous sorts.

☞   **To Undo a Sort**

Menu

- Choose Records, Remove Filter/Sort

Notes

Section 6   Importing and Linking Data

Objectives

The following are discussed in this chapter

- **Importing from Access and Excel**
- **Round Tripping between versions**
- **Linking to an Access Database Table**
- **Linking to an Excel Workbook using the Wizard**
- **Renaming and Copying Tables**

Download free eBooks at bookboon.com

6.1   Importing from Access and Excel

Access allows data stored in other tables and even other applications to be transferred into existing databases and tables.

The importing process copies data into an Access table. The resultant data is stored in the Access format and the data is useable only by Access. Access can import Text, Excel, Lotus 1-2-3, Paradox, dBase, and SQL database servers as well as earlier Access formats

☞   **To import from another Access Database**

Menu

- Choose File, Get External Data, Import
- The Import dialog box will be displayed, listing all the Access files in the current location.
- Double click on the file that contains the table/s (or any other database object) to be imported. A dialog box listing the objects in that file will be displayed
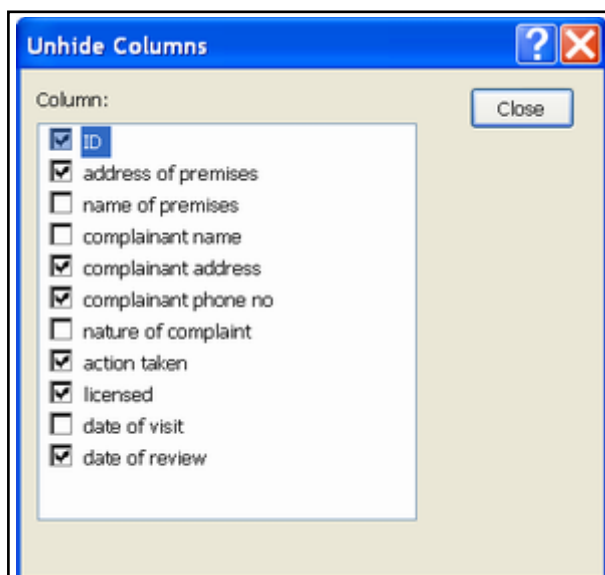
- Select the tables to be imported and click on OK. To import all the tables, click on the Select All button.

The selected tables have been copied from the source file. There is no link between the original file and the source file

6.2   Importing form Excel

Following similar steps, data may be imported from another application such as Excel, or Lotus 1-2-3. As the data is in a different format, Access guides you through a Wizard

☞   **To import from Excel**

Menu

- Choose File, Get External Data, Import.
- Access files will be listed only. To list files of other types, click on the drop down arrow to the right of Files of Type
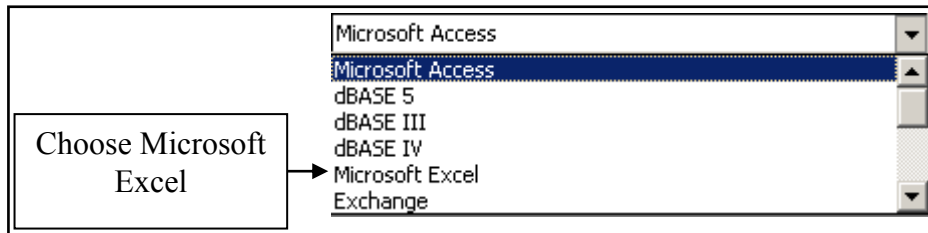
- All Excel files will be listed. Double click on the file you wish to import.
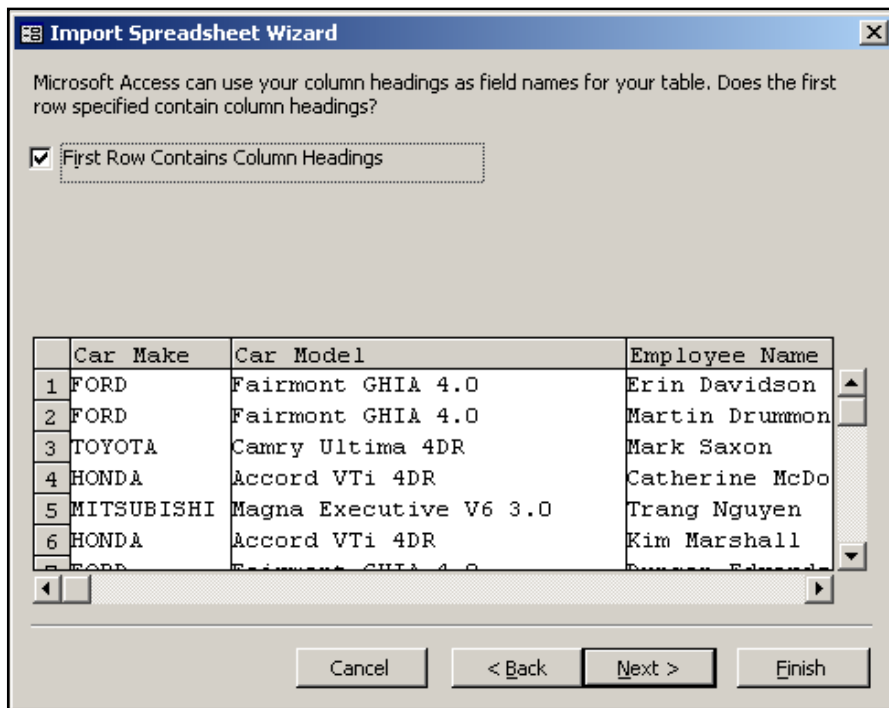
- The Import Spreadsheet Wizard will automatically be activated.
- To have the first row of the spreadsheet appear as field names, place a check mark in the box for First Row Contains Column Headings
- Click on Next
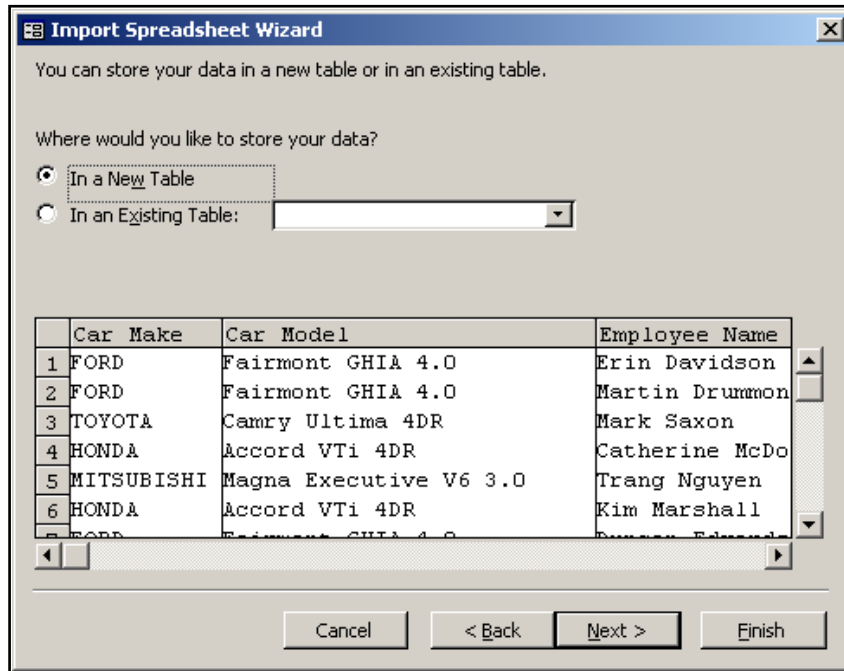
- Depending on where you wish to store the data, select the required option and click Next.
- In this dialog box, you can select each field that you wish to import an specify information for each field.
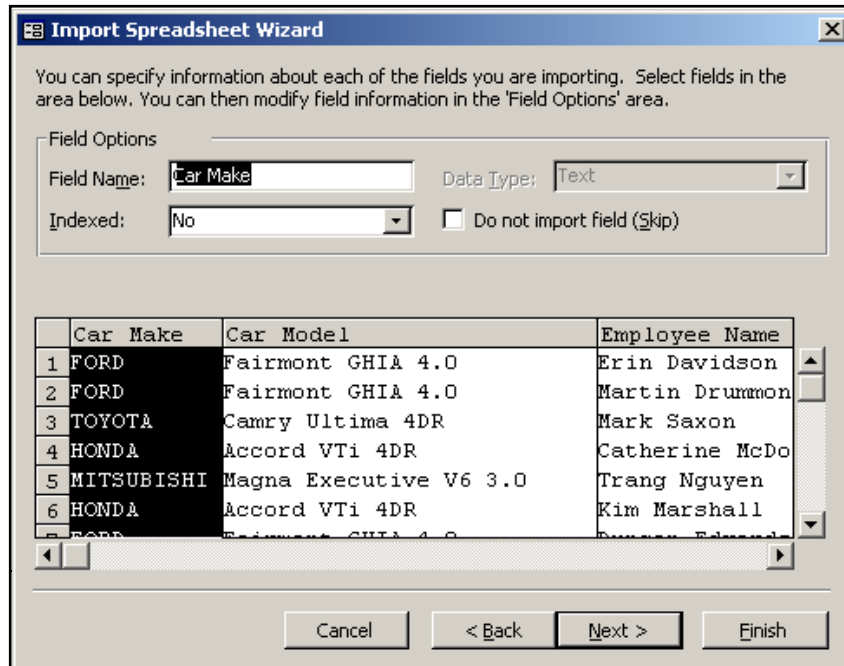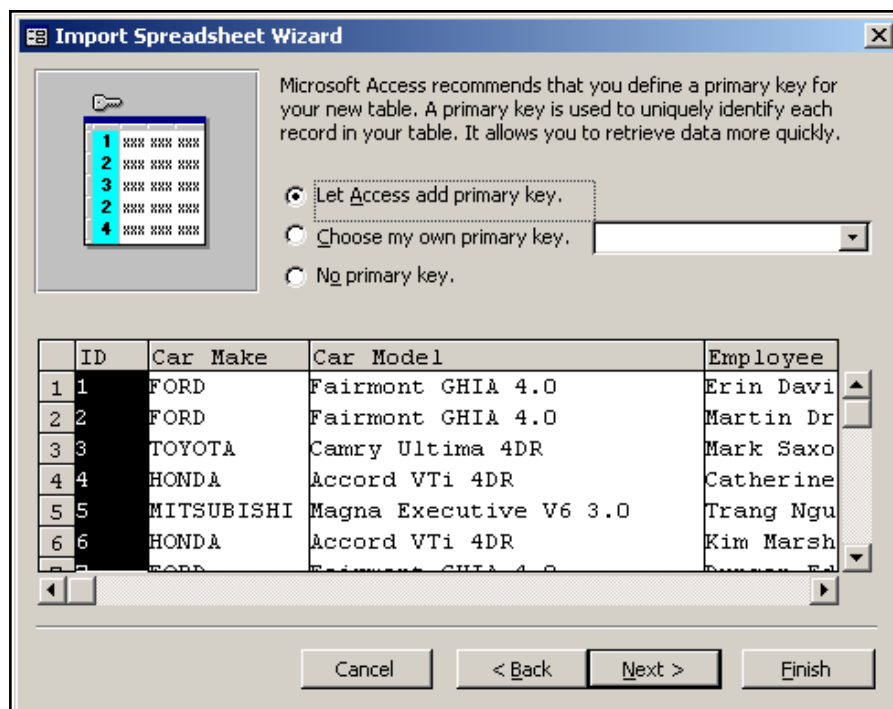
- Click on Next

- In this dialog box, you are prompted to assign a Primary Key for the table.
- Select an option and click on Next
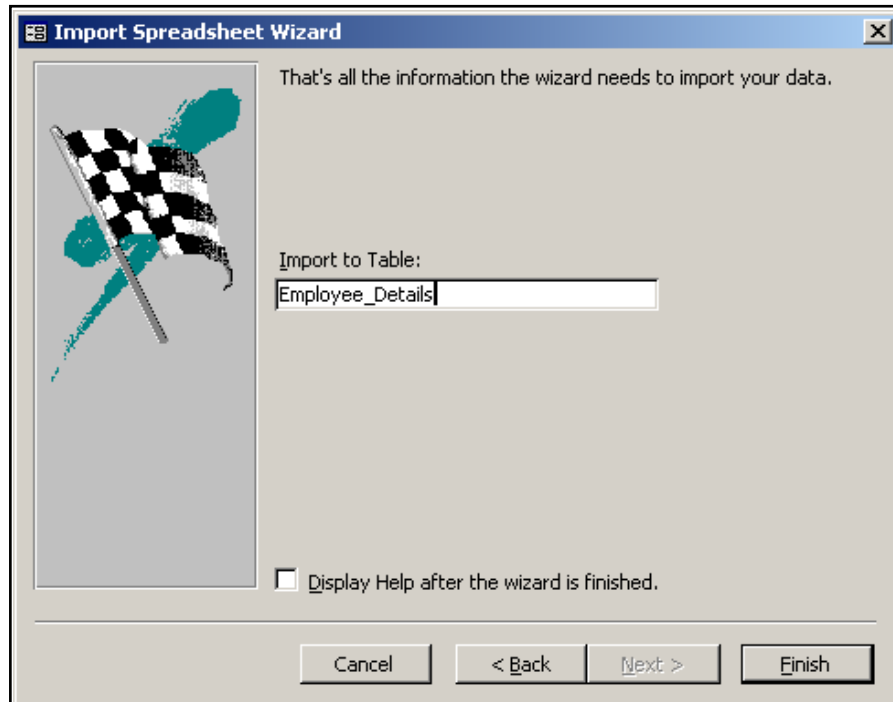
- The last step is to assign a name to the data being imported. If you wish to assign a different name, enter it in the Import To Table text box.
- Click on Finish
- When a message appears telling you that the file has been imported, click on OK

6.3   Linking to Access and Excel

The linking process differs from importing, in that the data can be used by either application. When data is linked, there is a connection between the applications. The data remains in the original file and Access works with the data in the original application's format

☞   **To Link to an Access Database Table**

Menu

- Choose File, Get External Data, Link Tables
- The Link dialog box will be displayed, listing all the Access files in the current location.
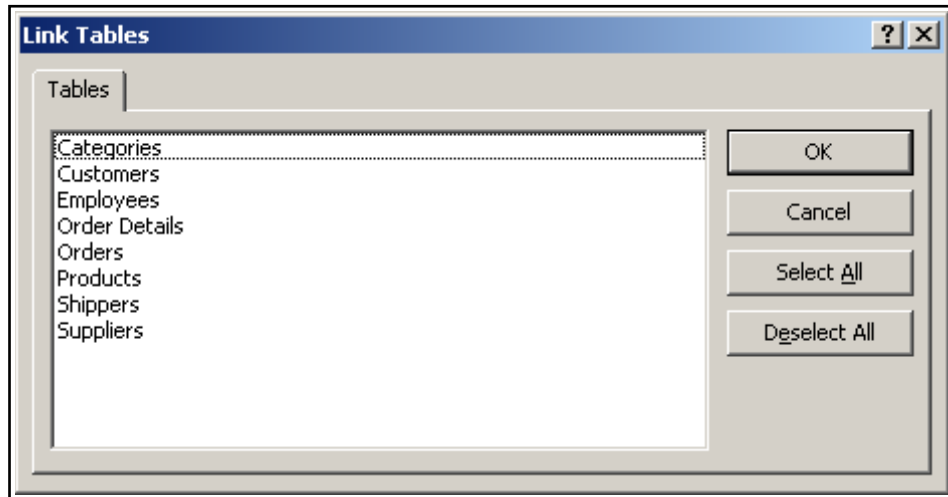
- Double click on the file that contains the table/s to be linked. A dialog box listing the objects in that file will be displayed
- Select the tables that you wish to create the link to and click on OK. To link all the tables, click on the Select All button.

A link has been created between the selected tables and the Access Database file that is currently open.

Linked tables appear differently in the Database container

☞   **To create a link to an Excel Workbook**

Menu

- Choose File, Get External Data, Link Table
- Access files will be listed only. To list files of other types, click on the drop down arrow to the right of Files of Type
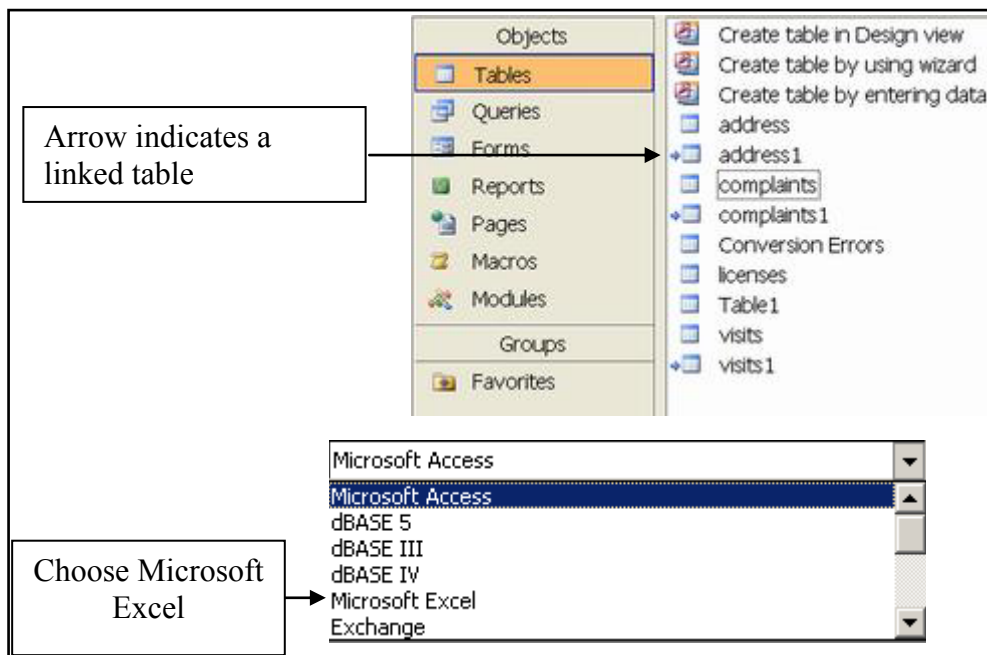
- All Excel files will be listed. Double click on the file you wish to link.
- The Link Spreadsheet Wizard will automatically be activated.
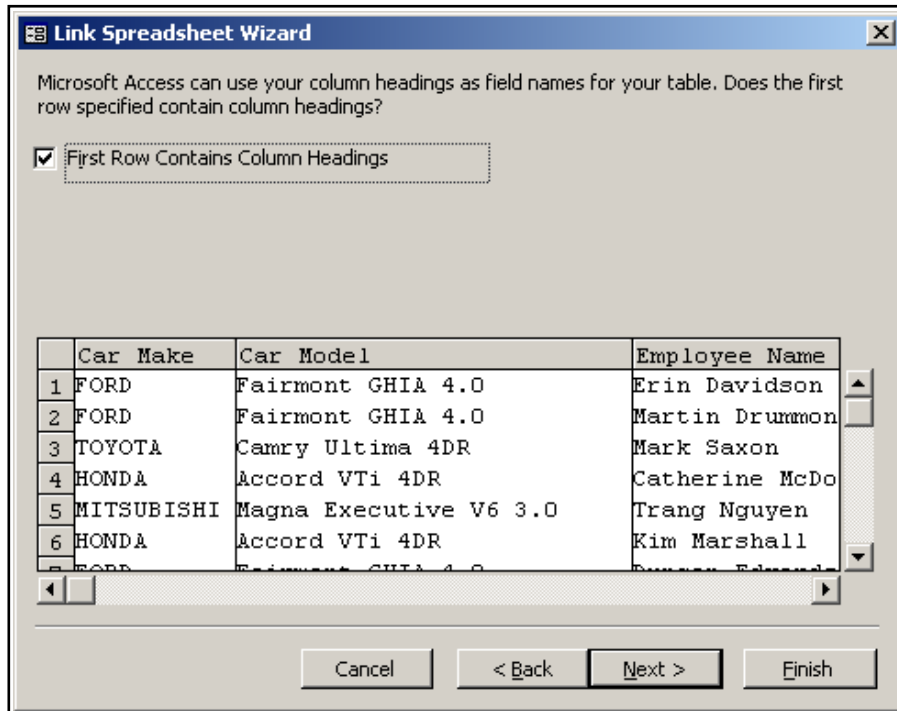
- To have the first row of the spreadsheet appear as field names, place a check mark in the box for First Row Contains Column Headings
- Click on Next
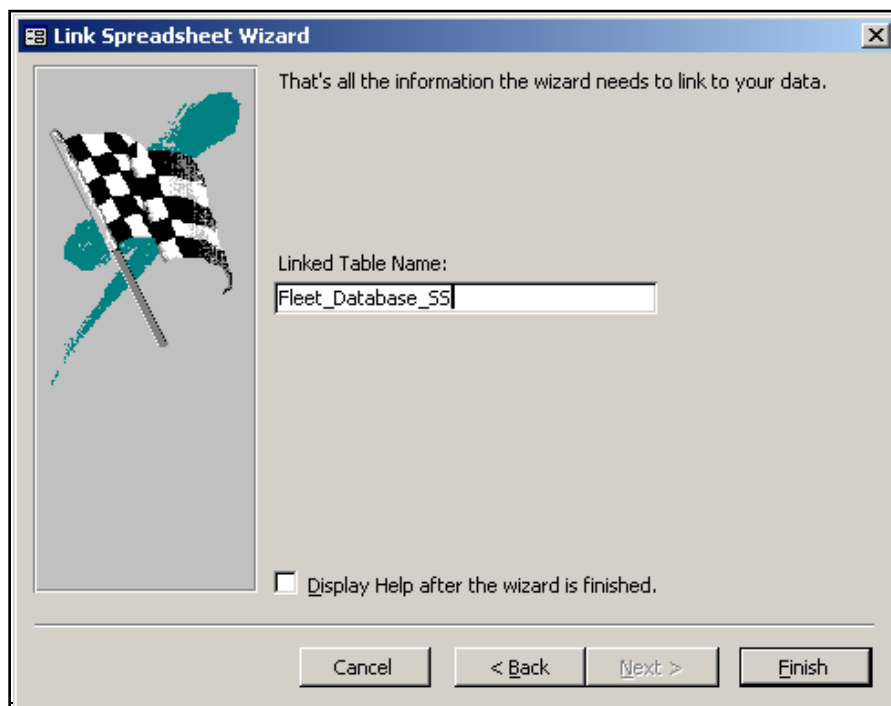
- The last step is to assign a name to the data being imported. If you wish to assign a different name, enter it in the Linked Table Name text box.
- Click on Finish
- When a message appears telling you that the file has been linked, click on OK

Changing the design of a linked table

The message below will appear if you attempt to modify the linked table in design view
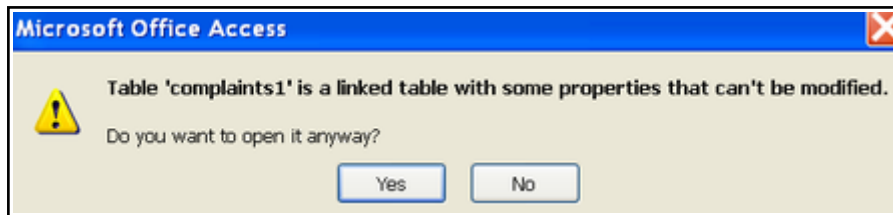
When you choose Yes, you will find if you try to edit certain field properties, such as field size, a message appears in red on the right hand side of the screen: **This property cannot be modified in linked tables.**

The following is a comparison of the pro's and con's of Importing and Linking

Download free eBooks at bookboon.com

Imported Table	Linked Table
You will get a faster response time because the table is using an Access Format	May be slower when working with data that is linked
The data is copied in to the Access Database	The data is linked to the Access Database
Changes made to data are not reflected in the original file	Changes made to data are reflected in the original file
You can change the structure of the file	Changes to the design of the table are not always possible
Extra storage space is required	No extra storage is required
You can create Relationships at table level	Relationships between tables cannot be established outside of queries
Referential Integrity Rules can be utilised	Referential Integrity Rules cannot be enforced

6.4   Round Tripping between versions

You can convert a Microsoft Access database from Access 2.0 or later to Access 2000 or Access 2003 file format.

☞   **To convert an Access database from 97 or earlier to 2003**

Menu

- On the File menu, click Open.
- Click a shortcut in the left side of the Open dialog box, or in the Look in box, click the drive or folder that contains the Access file that you want.
- In the folder list, double-click folders until you open the folder that contains the database. Double-click the file you want to open.
- In the Convert/Open Database dialog box, click Convert database.
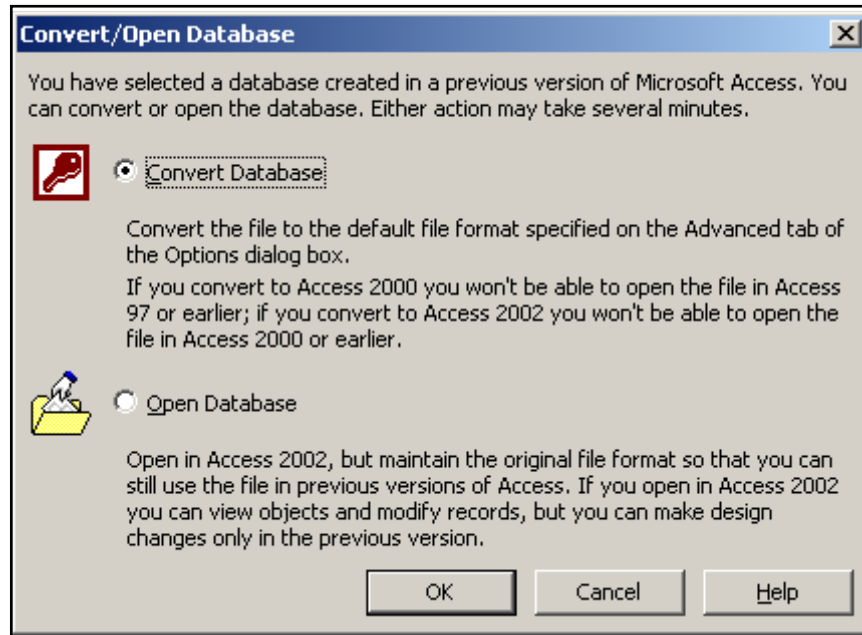
You can convert a Microsoft Access database in Access 2000 or Access 2003 file format back to Access 97.

☞   **To convert an Access file to a previous version**

- Open the Microsoft Access file that you want to convert.

- On the Tools menu, point to Database Utilities, click Convert Database, and then click the file format you want.
- In the Convert Database Into dialog box, type the name of the new previous-version database that you want to create in the File name box, and then click Save.

6.5   Renaming and Copying Tables

Copying Tables

As well as importing or linking data to Access form other applications; it is possible to copy data within an Access database

Access tables may be copied:

- Structure only
- Structure and Data
- Append Data to Existing Table

☞   **To copy the data, the structure or both:**

- Select the table to be copied
- Click on the Copy button
- Click on the Paste button
- The dialog box below will be displayed
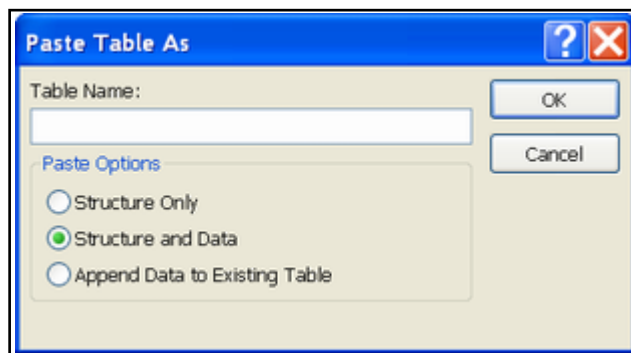
Download free eBooks at bookboon.com

Append Data to Existing Table

This is a method of copying all records from one table to another. I**f will only work where the field names are identical.**

☞ **To append data**

- Select the table containing the records you wish to copy. You do not need to open the table
- Click the Copy button
- Click the Paste button. The Paste Table As dialog box will appear.
- Type the table name that you wish to append the records to in the Table Name box.
- Ensure the radio button Append Data to Existing Table is selected
- Click on OK

Renaming Tables

☞ **To rename a Table**

- Click on the table with the right mouse button.
- Choose Rename
- Type the new name and press Enter
  Note: Renaming a table will break any relationships between tables. It will also break links between forms and subforms

Notes

Section 7 Using Filter and Select Queries

Objectives

The following are discussed in this chapter

- **Create a filter by selection and filter by form**
- **Save a filter by form as a select query**
- **The Query Design Window**
- **Specifying Text, numeric, date, and logic criteria**
- **Working with conditions**
- **Calculated Fields**
- **Simple Query Wizard**

7.1   Filtering Data in a Table

Having all the information entered into a table, it is possible to search for information based on criteria. This is called a filter and is especially useful when a change needs to be made e.g. a lady was recently married and hence her surname needs to be changed. You can filter all the records based on her old name, identify her record and then make the relevant change.

Once a filter has been applied, the entire table *hides* the records that don't meet the criteria. A filter cannot select out only certain fields e.g. if you wanted to create a view that doesn't show the salary field, you should rather create a query.

7.2   Filtering Data in a Table

Filtering can be used to find a *subset* of data based on *criteria* the users specifies, e.g. find all the people in the table that have made sales in the West.

In a table, Access of three types of filters:

Using	Description
Filter By Selection	Allows the user to specify which set of records they want to work with by selecting the value they are searching for directly in the datasheet (or form) – once the user has narrowed the focus to a specific set of records, they can then narrow it even further by selecting another value from within the subset of records
Filter By Form	Allows the user to specify which set of records they want to work with by switching to a view of the datasheet (form) with blank fields (instead of data) into which the user specifies the value(s) to search for

☞   **To Filter By Selection**

Menu

- In the Datasheet View, select the field(s) to filter, e.g. Manchester and Liverpool

	Id	Client ID	Street	Town	Postcode
	1	5	221B Baker Street	London	LA3 5GT
	2	67	61 ABC Street	Bristol	TS6 5NT
▶	3	13	67 High Street	Manchester	MF5 4TS
	4	50	874 Broadway	Liverpool	LA6 7TT

- Choose Records, Filter, Filter By Selection

  The table datasheet now displays only records with the selected field, e.g. all the Manchester and Liverpool records available.

	Id	Client ID	Street	Town	Postcode
▶	3	13	67 High Street	Manchester	MF5 4TS
	4	50	874 Broadway	Liverpool	LA6 7TT
	5	720	525 The Hill	Liverpool	LA6 7TT
	6	986	45 DEC Street	Liverpool	LA6 7TT
✳	(AutoNumber)	0			

*To redisplay all records choose **Records, Remove Filter/Sort***

Mouse

- In the Datasheet View, select the field(s) to filter, e.g. Manchester and Liverpool
- Click
- The table datasheet now displays only records with the selected field, e.g. all the Manchester and Liverpool records available.

  To redisplay all records, click

☞ **To Filter By Form**

Menu

- In the Datasheet View, choose Records, Filter, Filter By Form
- The Filter Window displays
- Type a value to search for in the field required

Or

Choose the value from a list in the field required

	Id	Client ID	Street	Town	Postcode
▶				"Liverpool"	

Search Value from Drop Down List

- If required click the **Or** tab and type/choose alternate values to search.
- If earlier filters display in the Filter Window, choose Edit, Clear Grid
- To run the filter, choose Filter, Apply/Sort Filter

*To redisplay all records choose **Records, Remove Filter/Sort***

Mouse

- In the Datasheet View, click
- Type a value to search for in the field required

Or

Choose from a list in the field required

- If required, click the **Or** tab and type/choose alternate values to search.
- If earlier filters display in the Filter Window, click
- To run the filter, click

Saving and Loading Existing Filters

Although Access retains the last filter when the table datasheet is saved, filters can be saved individually as queries. These filters (queries) will display in the Database Window within Query's and can be used in the same was as any other queries. Once a filter has been saved it may be reloaded over and over again within the datasheet.

☞ **To Save Filters**

Menu

- Filter the data as required
- In the Filter Window, Choose File, Save As Query
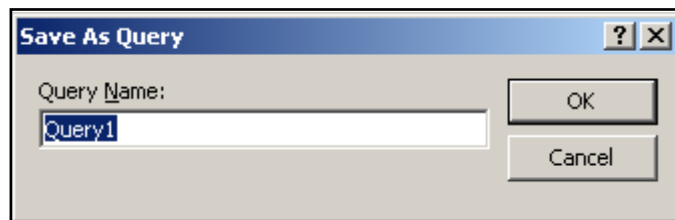
- Type a name
- Choose OK

Mouse

- Filter the data as required
- In the Filter Window, click 💾
- Type a name
- Choose OK

Filter by Selection filters cannot be saved as queries.

7.3   Running a Select Query

An Access user can retrieve and display selected data by building a *Query* on single/multiple tables or data from other software packages.

Access uses *Query by Example* (QBE) to extract selected data in accordance with specified examples. Query data can be used to create Forms, Reports, Graphs and further queries.

A query is created using a wizard or 'from scratch' in the query Design View. In the Design View, users specify the data they want to work with by adding the tables that contain the data, then filling in the design grid.

☞   **To Create a Query**

Mouse

- In the Database window, choose **Queries**
- Choose **New**
- Choose **Design View**
- Choose OK
- Double-click on the table/query to be used
- Choose Close

The Grid Window
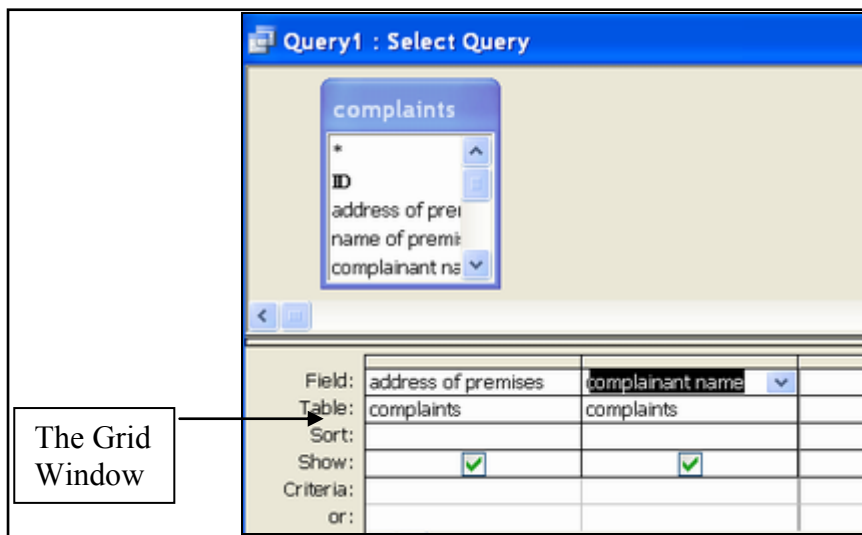
- Data can now be added to the Query grid.

It is now necessary to add fields to the grid area in the query design.

In a query, you add only those fields whose data you want to view, set criteria on, group by, update, or sort. In a filter, you add only the fields you want to use for sorting or specifying criteria, and Microsoft Access will automatically display all the fields in the filtered results.

☞   **To add a field to the query grid**

- Select the field/fields from the field list by doing one of the following:

To select	Do this
A field	Click the field name.
A block of fields	Click the first field in the block, hold down SHIFT, and click the last field.
Noncontiguous fields	Hold down CTRL as you click the fields.
All fields	Double-click the title bar of the field list or click the asterisk (*).

- Drag the field from the field list to the column in the design grid where you want to insert it. See below
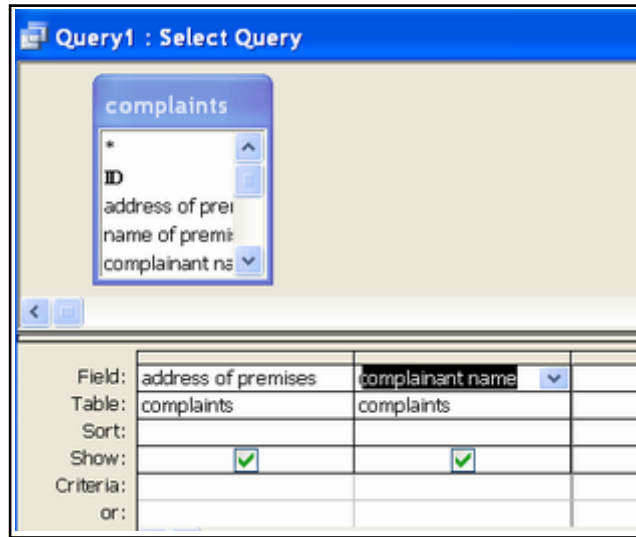
The query result is displayed in datasheet view and is referred to as the dynaset. A dynaset is a dynamic set of extracted records, which will change when records are added to, or changed in the original table.

☞   **To display the Query results**

Mouse

- Click

Menu

- Choose View, View Datasheet View
- The *Dynaset* displays.

First Name	Last Name	Salary
Anne	SMITH	27,000.00
John	KING	45,000.00
Betty	WELLS	48,750.00
Tony	HILL	21,500.00
Harry	BELL	28,000.00
Helen	LEWIS	22,500.00
Bill	BROWN	19,000.00
Kylie	ADAMS	33,000.00
Lisa	TIMMS	23,750.00
Peter	POTTER	24,000.00
Sue	GREEN	27,000.00
Helen	CRISP	18,000.00
Lee	WONG	27,500.00

Display/Suppress the display of a field

Remove fields from a query

Fields can be displayed, suppressed, and removed from the query grid window.

☞   **To display/Suppress the display of a field**

- Click on the Show check box to remove the tick to hide the field
- Click on the Show check box again to display the tick and display the field

| OrderDate |
| Orders |
| Where |
| |
| ☐ |
| Between #01/01/1997· |

Show check box

Download free eBooks at bookboon.com

☞   **To Remove a Field Column**

Keyboard

- Select the column to move by clicking on the field selector
- Choose delete on your keyboard
- Release the mouse

7.4   Specifying text, numeric, date, and logic criteria

The user enters criteria in the Query Design. For example, setting the criteria "smith" will find all occurrences of the surname smith. (Criteria are not case sensitive)

Range Operators

Operators	Description
>	Greater than
<	Less than
>=	Greater than or equal to
<=	Less than or equal to
<>	Not equal to

Criteria	Description
>=10000	Finds values greater than or equal to 10000
<="J"	Finds surnames between A and J

Wildcards

Wildcards can be used to replace field characters

Wildcards	Description
?	Any single character
*	Any characters

Criteria	Description
Sm?th	Finds Smith and Smyth
B*	Finds values beginning with B (=b* makes it case sensitive)
//91	Finds all dates in 1991

Working with multiple Criteria

Multiple conditions fall into two categories:

Categories	Description
AND Condition	All conditions specified must be satisfied before Access displays data; with multiple AND criteria covering more than 1 field conditions must be specified on the same row, AND criteria in the same field can be entered, e.g. >=1-Jan-83 and <=31-Dec-1984 – this example would display records between 1983 and 1984
OR Condition	At least one of the conditions specified must be satisfied before data is shown; Multiple OR criteria covering more than 1 field should be entered on separate field rows, OR criteria in the same field can be entered e.g. Gould or Davis – this would display records for Gould and Davis

The And Condition ←

Field:	Last Name	Department
Table:	staff	staff
Sort:		
Show:	☑	☑
Criteria:	"Smith"	"Sales"
or:		

Field:	Last Name	Department
Table:	staff	staff
Sort:		
Show:	☑	☑
Criteria:	"smith"	
or:		"sales"

The Or Condition ←

Special Operators

Some operators carry out special functions

Operators	Function
Date()	Will extract records with today's date
Like	Will extract records similar to, e.g. Like Peters* will extract surnames similar to Peters
Not	Finds records not matching the condition, e.g. Not Smith will exclude records containing Smith
Null	Extracts records with a blank field
Between And	Extracts record between two values

☞   **To Enter Criteria**

Mouse

1. In the Query Design View, click and drag the fields required
2. Type the criteria required   relevant field
3. To run the query, click

7.5   Calculated Fields

Calculated Fields perform calculations on numeric fields.

To change the fieldname, the expression can be amended by simply deleting Expr1 and typing in the required fieldname, e.g. Increase:[Salary]*1.05

The data format can also be amended, e.g. to display currency symbols or percentage signs. The field format can be edited in two ways: changing the field properties or typing the format required.

☞   **To Change the Field Properties**

Menu

1. In the relevant field, choose View, Properties

Or

Click the right mouse button in the selected field, choose Properties

2. Choose the format required, e.g. Currency
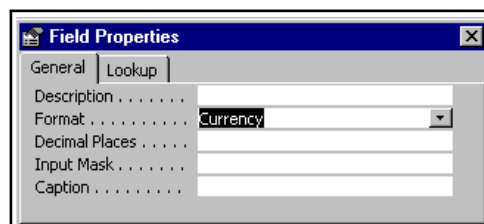
3. Click   ☒
4. Choose Query, Run

Mouse

1. In the relevant field, click
2. Choose the format required, e.g. Currency
3. Click
4. To run the query, click

☞   **To Edit the Field Format**

Keyboard

1. In the relevant field, type format required, e.g. Increase: Ccur([Salary]*1.1)

Everything inside the brackets will be formatted as currency using the currency function.

2. To run the query, click

7.6   Using Query Wizards

Query Wizards will quickly produce five other types of query and are accessible via the New Query option.

☞   **To Use a Query Wizard**

Mouse

1. In the Database Window, choose the **Queries**
2. Choose New
3. Choose the wizard required

Wizards Available	Description
Simple Query Wizard	This wizard creates a select query from the fields the user picks
Crosstab Query Wizard	This wizard creates a crosstab query that displays data in a compact, spreadsheet-like format
Find Duplicates Query Wizard	This wizard creates a query that finds records with duplicate field values in a single table or query
Find Unmatched Query Wizard	This wizard creates a query that copies records from an existing table into a new table

4. Choose OK

5. Follow the wizard steps (these vary depending on the wizard chosen)

6. On completion, choose Finish

7. The Query is now created.

☺   Useful Information

Use the query wizards when you want to find duplicate or unmatched data in tables.

Download free eBooks at bookboon.com

These can be very useful when you are trying to ensure that a field contains unique values, but when you set it up to not allow duplicates you get errors about duplicate values already being present. The find duplicate data query wizard will help you to find and eliminate the items that have been duplicated.

Similarly, the find unmatched data query wizard can quickly help you to find and eliminate "orphan" records - (those records that don't have a parent - for example a record of absence for a non-existent member of staff).

Notes

Section 8   Relationships

Objectives

The following are covered in this chapter:

- **Why we need relationships**
- **Different types of relationships**
- **Necessary conditions for setting up a relationship**
- **Referential Integrity**
- **Cascade Update**
- **Cascade Delete**
- **Creating Table Relationships**

8.1   Why do we need relationships

We looked earlier at how Access allows you to set up multiple tables in a database file. As a result of normalisation, it will probably be necessary to spilt data into several different tables. Multiple tables also make the data more accessible.

Once you divide data into multiple tables, you need to tell Access how you want to combine all or part of that data in a more meaningful way.

In order to combine data that is stored in different tables, each table must have a field with a common value. The common value may be a name, Id Number etc

For example, suppose you are working with an Employee table and an Expense table in a Personnel database file. You have been requested to create a report that contains each employee's name and their associated expenses. Because the data you need is contained within two separate tables, you need to establish a relationship between the tables to combine the data correctly.

Having a common field, such as ID in the Employee table and a corresponding Employee Id field in the Expense table will allow you to create the necessary link as shown below:

ID		Employee_ID
Lname		Expense_Amount
Fname		Expense_Date
Address		Description
City		
Postcode		
Salary		

8.2   Different Types of Relationships

When you establish a relationship between two tables, you need to ascertain the nature of the relationship. There are in fact, three types of relationships.

One-to-One Relationship

In a one-to-one relationship, a single record in the first table can have only one matching record in the second table and a single record in the matching table can have only one matching record in the first table.

For example, ;you may have confidential information about each employee, such as salary or bank account details, that you do not wish to include in the Employee table. You could create a separate table and protect it with a password to prevent unauthorised access.

Employee ID	Last Name	First Name		Salary	NI_Number
1	Davolio	Nancy		£25,000.00	NZ-1234567
2	Fuller	Andrew		£35,000.00	TY-1234567
3	Leverling	Janet		£19,000.00	TR-1234567
4	Peacock	Margaret		£11,000.00	TR-1223456
5	Buchanan	Steven		£29,000.00	NZ-1234477

This relationship is not so common. In most cases, if each record has an exact match in another table, a single table is used.

For a one-to-one relationship to be established, both tables must have the same primary key.

One-To-Many Relationship

This is the most common type of relationship. In a One-to-Many relationship, a single record in the first table can match multiple records in the second table, but a record in the second table can have at most one matching record in the first table. The relationship is based on the first table's primary key.

In the example shown below, Nancy Spain has many expenses.

Download free eBooks at bookboon.com

A One-to-Many relationship may also be called a Primary table to Related table relationship.

Many-To-Many Relationship

In a Many-to-Many Relationship, multiple values in the first table can relate to multiple values in the second table.

For example, a many-to-many relationship would exist between students and classes where many students would attend many classes.

Anther example is where you have many employees performing many tasks. This would result in a many-to-many relationship.
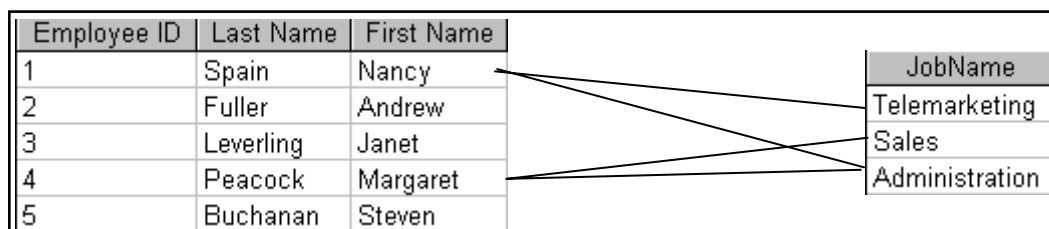
When you have more than one employee performing the same task, you will repeat the employee's details for every job description that exists for that employee. At the same time, the job description details will also be repeating.

The answer is to create a third table that breaks down the many-to-many relationships into a one-to-many relationship. The third table combines the primary key for each relationship that exists which combines the primary keys from the first two tables.

8.3   Creating a relationship

Access will only allow one relationship between two tables. If you create a second relationship, it will replace the first relationship.

It is not possible to create a relationship using a table that is open, so ensure all tables are closed.

☞   **To create a relationship**

- Click on the Relationships button
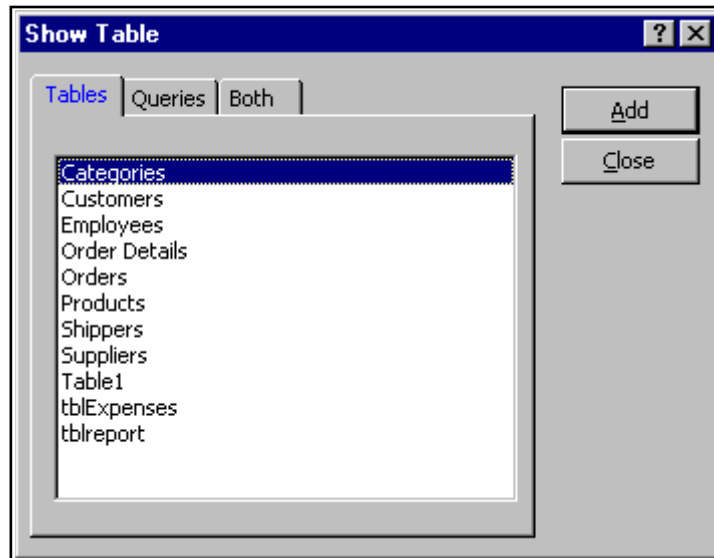
Access displays the Relationships window with the Show Table dialog box open

- Add the tables you wish to relate to the relationships window by double clicking on the table name
  Each table appears as a list of fields in the relationship window. You may choose one field form each table to establish a relationship.

  You create a One-to-Many relationship between two tables by joining the **Primary key** field of one table to a matching field in another table. Matching fields can often have the same name, although is not necessary that they do, and they **must** contain the same value for related records

- Drag the field from the primary table and drop in on the appropriate field in the related table. The dialog box below will appear
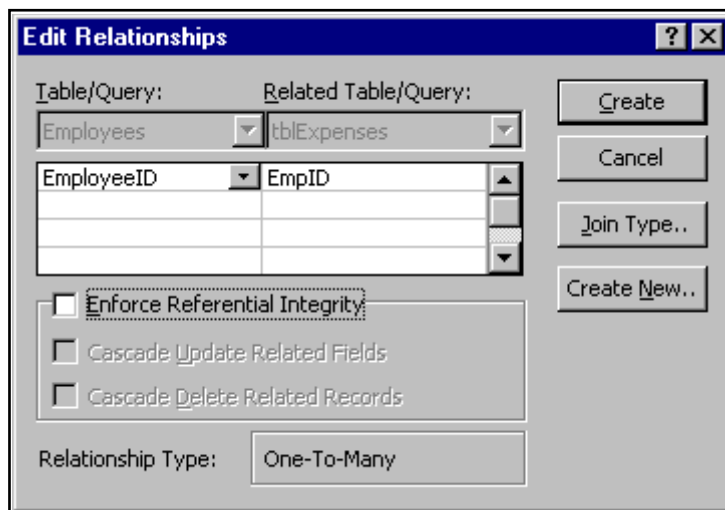
Do one of the following

- Select the Enforce Referential Integrity (see next topic) check box and then choose Create
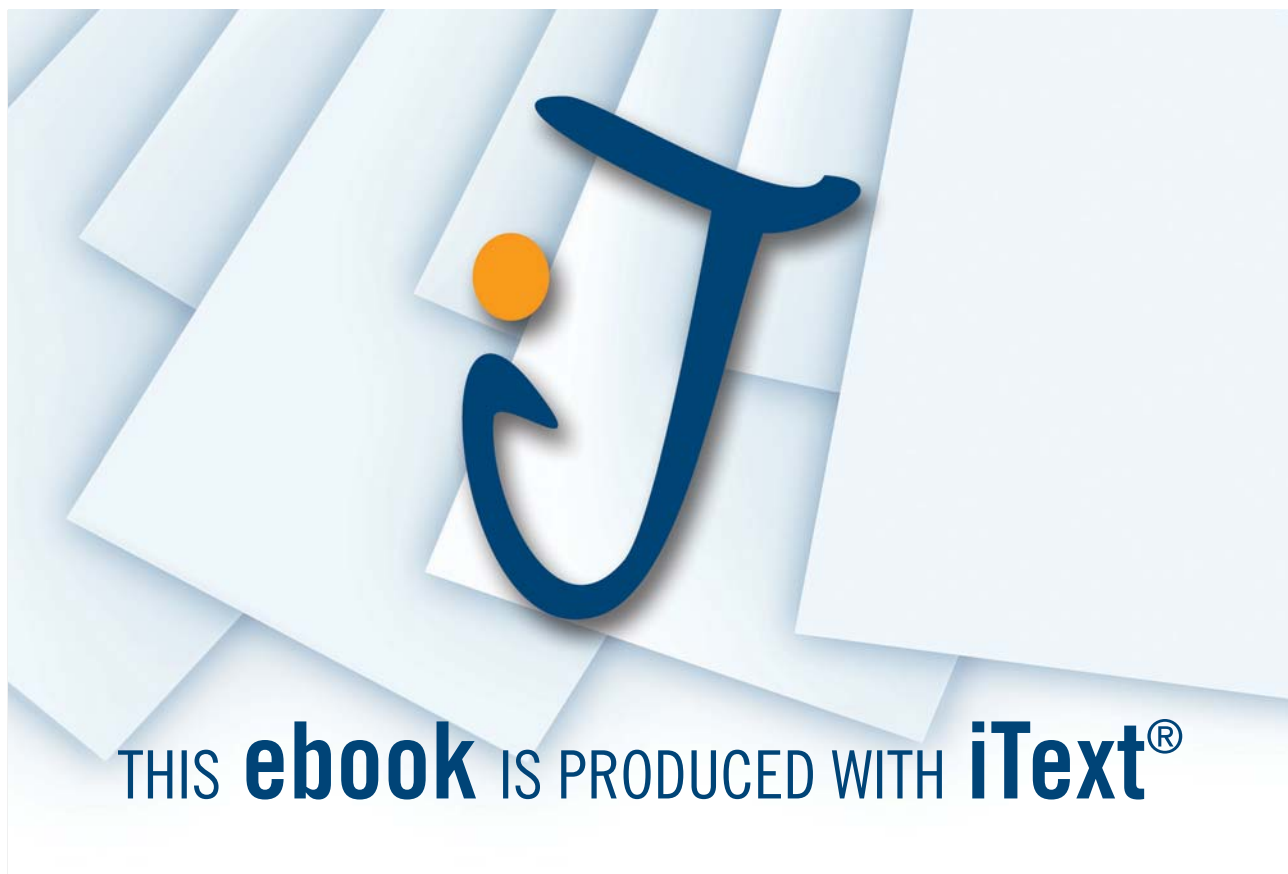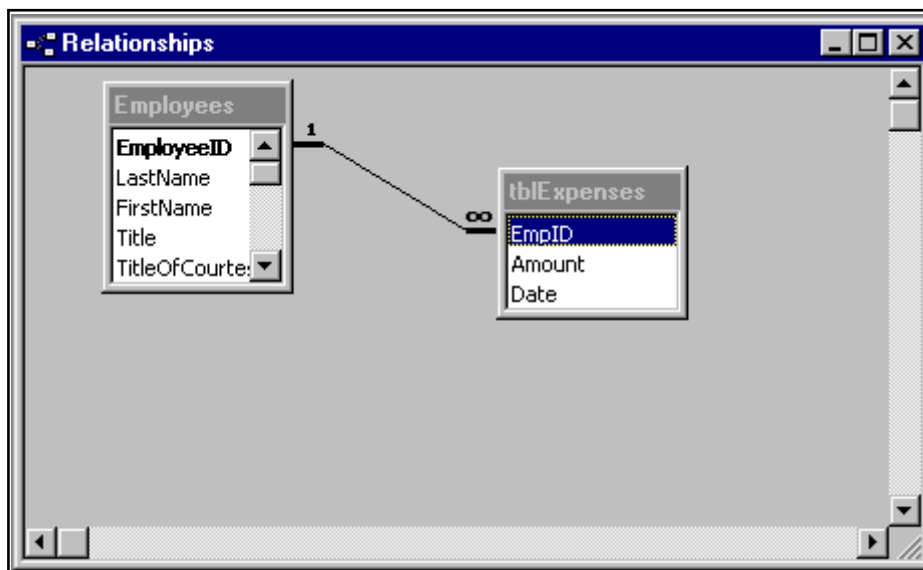
A line will appear between the two tables (see below) :

Or

- Choose Create

A line will appear between the two tables (see below) :
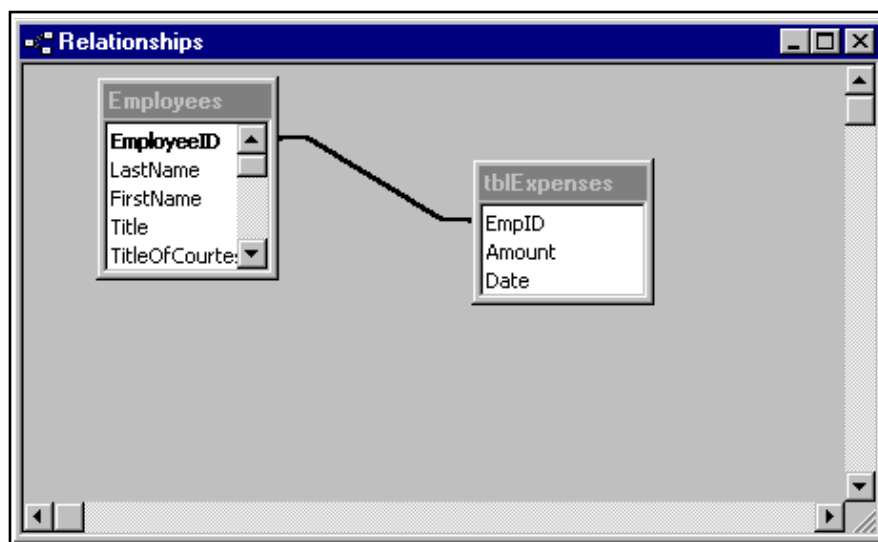
Referential Integrity

Referential Integrity helps ensure that your data is related in a logical manner and that you don't accidentally delete data that is related between tables. When you select his option, Access observes the following rules:

- When you add data from to the **Related** table, there must be a matching record in the **Primary** table.For example, if you add a new expense record for an employee, the Employee Id must match an Employee Id in the Employees table.
- You cannot delete records from the **Primary** table if records in the **Related** table use that data.
For example, ;you cannot delete an employee from the Employees table who has expenses in the Expenses table.

Access can enforce Referential Integrity when the following conditions are met:

- The matching fields from the **Primary** table is a primary key or has a unique index
- The fields don't necessarily have to have the same fieldname, but they must **both be of the same data type.**
- Both the tables must belong to the same Access database

Having checked the **Enforce Referential Integrity** checkbox, you noticed that two further checkboxes **Cascade Update** and **Cascade Delete** appear.

Cascade Update

This automatically duplicates a change made to the "shared" filed of related tables.

For example, the Employee table is connected to the Expenses table by the date in the Employee Id field. If an employee Id is changed in the Employee table, the records related to that table in the Expenses table will automatically be updated so that the Employee ID is the same for both tables.

Cascade Update only works in one direction, from One to Many.

Cascade Delete

If you delete records in a Primary table, related records in the Related table will also be deleted, after a warning message.

For example if you were to remove an employee from the Employees table, all expenses records for that employee would be automatically removed from the Expenses table.

☞   **To Edit a Relationship**

Mouse

- Double-click on the relationship join
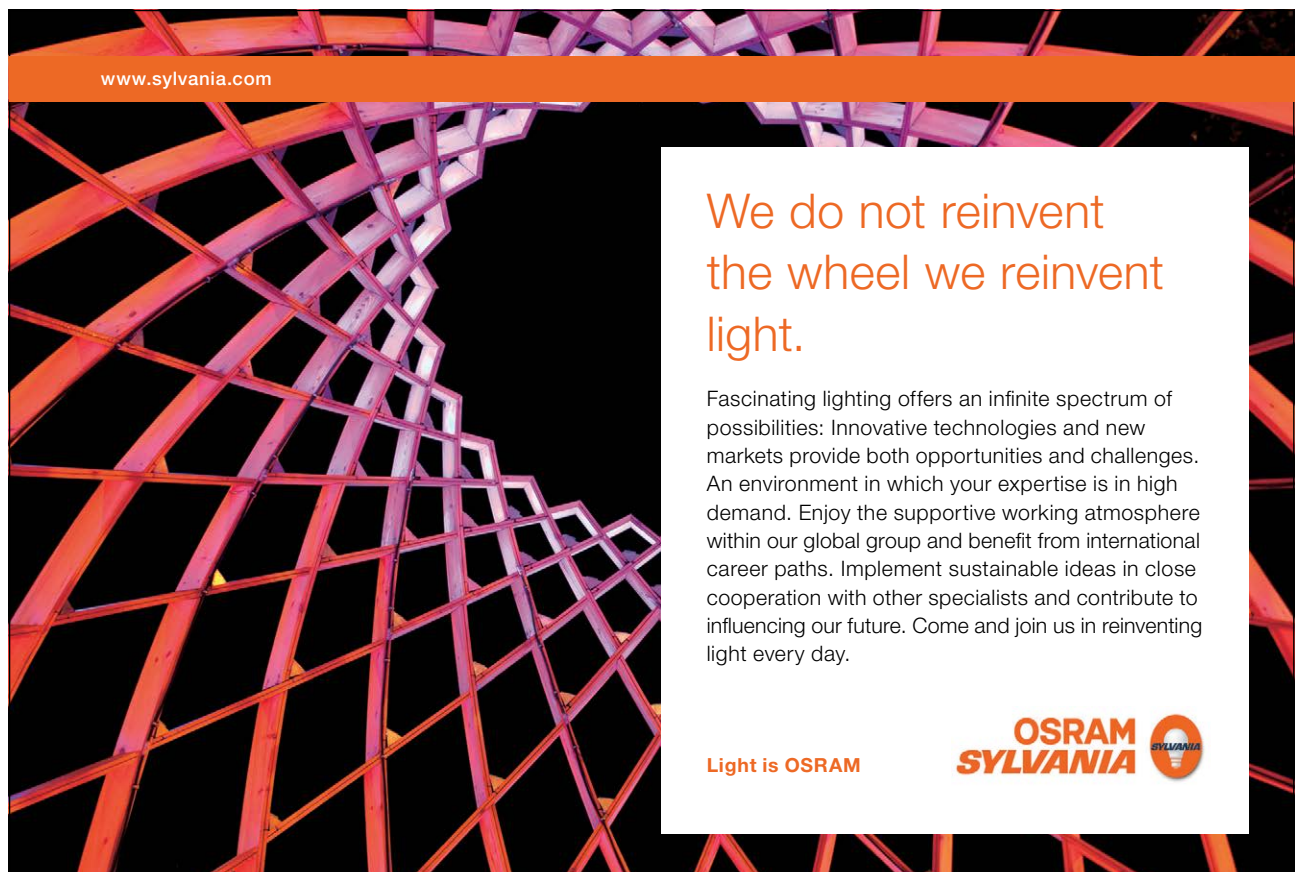
Notes

Section 9   Multi-table Queries

Objectives

The following are covered in this chapter:

- **Multiple Table Queries**
- **Joining Tables for a query**
- **Join Properties – Inner and Outer Joins**
- **Find Unmatched Query Wizard**
- **Find Unmatched Query Wizard**

Download free eBooks at bookboon.com

9.1   Multiple Table Queries

Multiple table queries enable you to select data from more than one table.

For example, you may wish to list all employees with there expenses

In this query, data from both the **Employee** and **Expenses tables** is combined.

9.2   Deciding which tables to Join

To assist you in designing Queries, it is often helpful to create a diagram of your database structure, showing how the various tables relate to one another, as shown below:
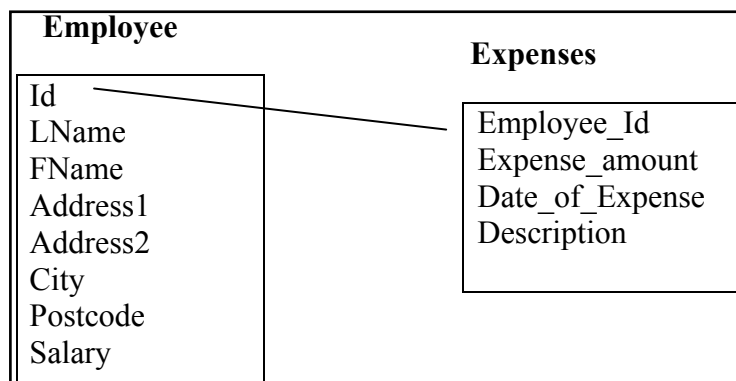
9.3   Joining Tables for a query

To link tables while creating a query, first create a new query. If the Show Table dialog box does not display automatically, click the **Show Table** button on the toolbar. Double click the tables you wish to query and click on **Close**

Whenever you query multiple tables, those tables have to joined. Joined tables are displayed in the query window with a **join line** connecting them.

If a relationship has been established between tables at the database level, Access automatically displays a join line between the tables.

If no relationship exists between the tables, but a field of the same name and datatype exists in each table and one of them is a primary key field, the join line will be created automatically.

Although it is easier if you have linked the tables using the **Relationships** window, it is not absolutely necessary that you do so, as Access also allows you to link tables while creating a query.

An example of a query with two tables added appears below.

Note that the tables are not yet joined
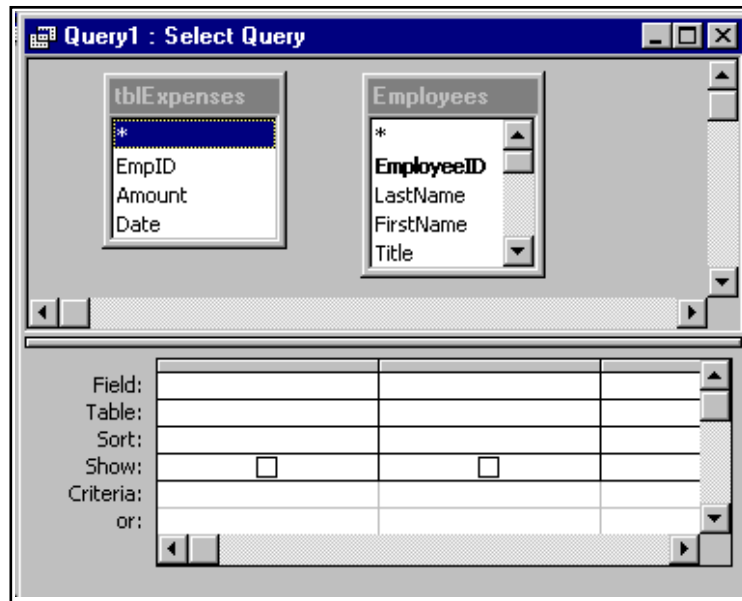
You join tables when you select a field from one table and drag it to the matching field in the next table. It is not necessary that the field names be matching, but the information in each field must be identical. Once the tables are joined, Access displays a join line as displayed below:
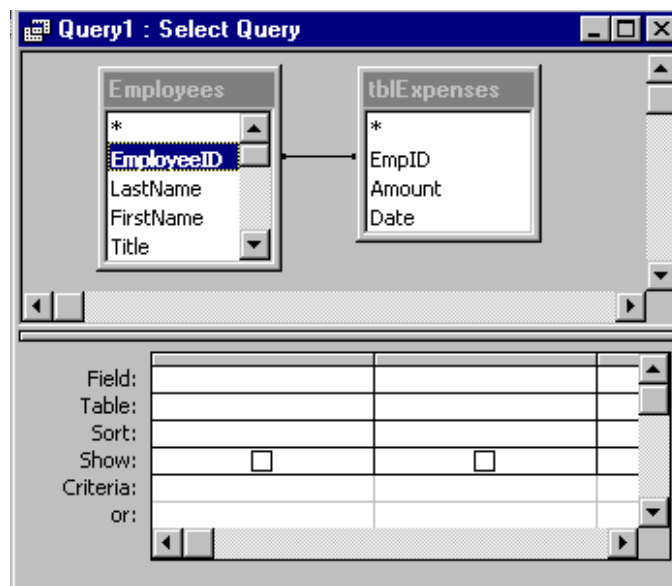
9.4   Joining Tables in Queries

Joins create temporary relationships between multiple tables and are only active when a query is run.

☞   **To Join Tables**

Mouse

1. Create a new query
2. Add tables required
3. To link fields, click and drag one field to the other to create a join Line
4. Only link fields of same data type containing similar data.
5. Choose sort fields and criteria required
6. To run the query click

To add further tables and joins to a query click and follow steps 3 o 5.

☞   **To Delete the Join**

Menu

1. Select the join line
2. Choose Edit, Delete

Join Properties

When tables are joined in the Query window, a join line appears, linking the tables.

The join may automatically appear, for example when two tables have an existing relationship, or you may have created it by dragging a field from one table to another.

Different relationships have different lines. Some have a thin line, some a thick line with an arrow, some the One-to-Many join line. **No matter what kind of line is displayed, the automatic join property is the same.**

Click on the join line and click View, Join Properties. Alternatively, double click on the join line to see the Join Property dialogue box:
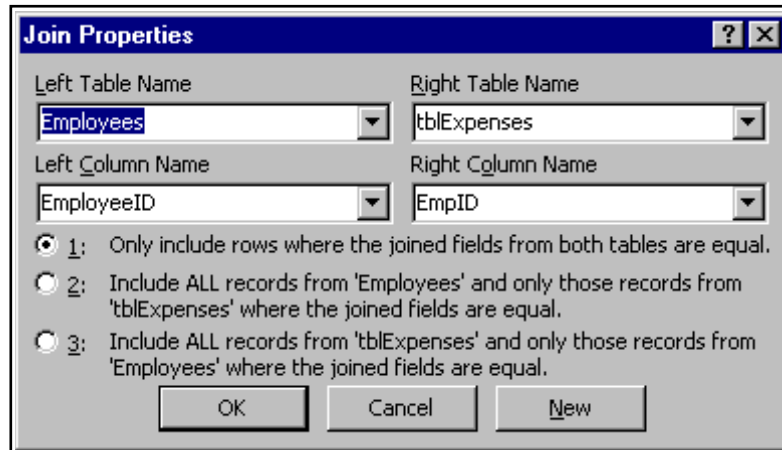
The three types of joins will be explained using the Employee and Expenses table as an example:

Option 1

Shows all records where an employee has claimed expenses.

Will not show employees without expenses

Will not show expenses without a matching employee Id no

This can also be called an Inner Join

Download free eBooks at bookboon.com

Option 2

Shows all records from the Employee table and all matching expenses records.

Will not show Expenses without a matching employee Id no

This can also be called a Left Outer Join.

Option 3

Shows all expense records and matching Employees.

Will not show Employees who have not claimed expenses

This can also be called a Right Outer Join

9.5   Find Unmatched Query Wizard

This creates a select query to find records in one table that don't have related records in another table. For example, you can find Employees who have not claimed Expenses.

☞   **To use the Find Unmatched query wizard**

- In the Database window, click **Queries** under **Objects**, and then click **New** on the Database window toolbar.
- In the **New Query** dialog box, click **Find Unmatched Query Wizard**, and then click **OK**.
- Follow the directions in the wizard dialog boxes. In the last dialog box, you can choose to run the query or see the query's structure in Design view.
- If the resulting query isn't exactly what you want, you can rerun the wizard or change the query in Design view.

9.6   Find Duplicates Query Wizard

The Find Duplicates Query Wizard, creates a select query to determine if there are duplicate records in a table. For example, you might search for duplicate values in an Address field to determine if you have duplicate records for the same supplier, or you might search for duplicate values in a City field to see which suppliers are in the same city.

☞   **To use the Find Duplicates Query Wizard**

- In the Database window, click **Queries** under **Objects**, and then click **New** on the Database window toolbar.
- In the **New Query** dialog box, click **Find Duplicates Query Wizard**, and then click **OK**.
- Follow the directions in the wizard dialog boxes. If you don't choose to show fields in addition to those with duplicate values, the query results will sum the instances of each duplicate value. In the last dialog box, you can choose to run the query or see the query's structure in Design view.
- If the resulting query isn't exactly what you want, you can rerun the wizard or change the query in Design view.

Notes

Section 10   Creating Forms

Objectives

The following are covered in this chapter:

- **Creating Forms using the Auto Form**
- **Tabular/Datasheet/Pivot Form Wizard**
- **Creating Forms using the Form Wizard**
- **Data Entry in Forms**
- **Resizing and moving controls**
- **Changing Text Attributes**
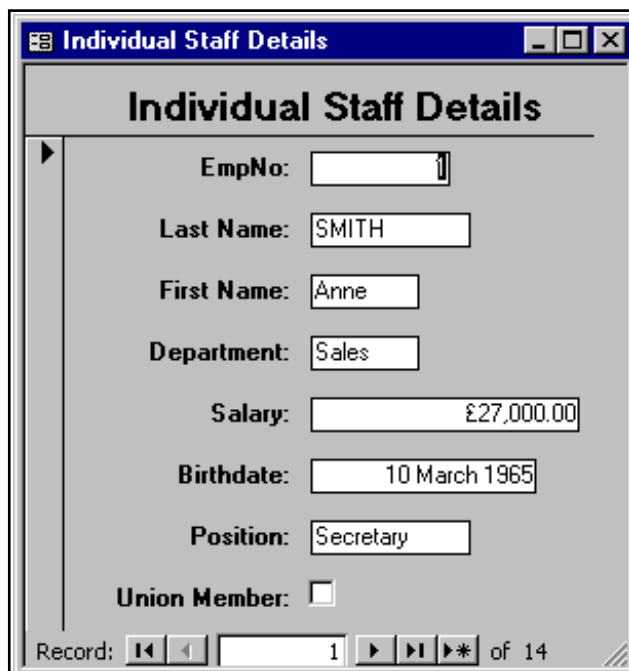
10.1   Using Forms

A *Form* is a user-friendly screen displaying selected table or query information for data entry and viewing.

Fields, data, pictures, calculations, headers, footers, fonts, lines, colours can be displayed. Each form can have a maximum of 2 *sub forms*.

Creating a Form

Users can create their own forms or allow Access to create forms based on a single table or query by using the Auto Form feature. Auto Form creates a form that displays all fields and records in the underlying table or query. If the record source you select has related tables or queries, the form will also include all the fields and records from those record sources

☞   **To create a form using Auto Form**

- Select the table or query that you wish to base the Auto Form on
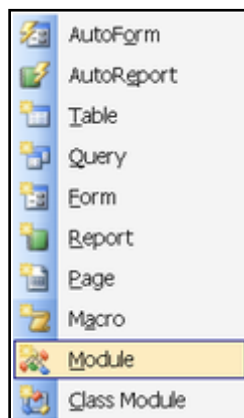
- Choose the New Object button on the toolbar and choose the Auto Form option.

10.2   Viewing Forms

Form data can be viewed in five different formats:

- Design View
- Form View
- Datasheet View
- PivotTable View
- PivotChart View

☞   **To Display in Design View**

Mouse

1. Click
2. Choose **Design View**
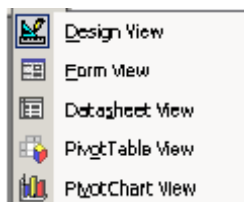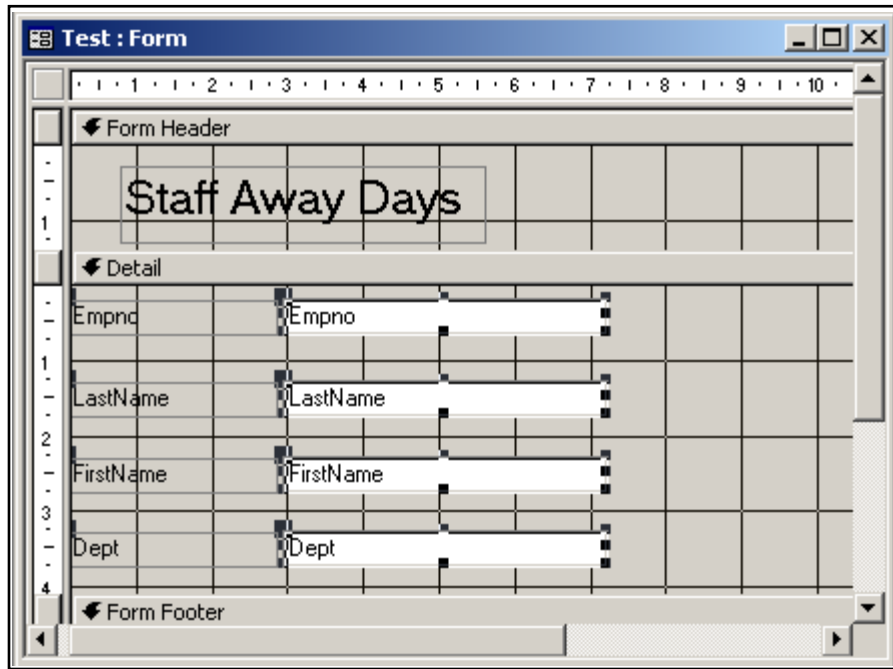
☞   **To Display Form View**

Mouse

1. Click
2. Choose Form View

Or

In the Database window, click

☞   **To Display Datasheet View**

Mouse

1. In the Design or Form View, click
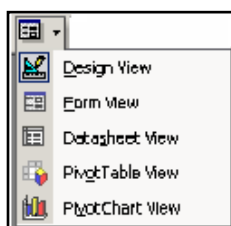
2. Choose Datasheet
3. The Datasheet displays.

☞   **To Print Preview**

Mouse

1. In the Form or Design View, click

A preview of how the form will look when printed now displays.

Moving Around Form View

When viewing, adding or changing records in Form View the following may be used:

Keyboard

Key	Action
[TAB]	Move to next field
[SHIFT]+[TAB]	Move to previous field
[END]	Move to last field in record
[HOME]	Move to first field in record
[CTRL]+[HOME]	Move to first record
[CTRL]+[END]	Move to last record
[CTRL]+[PAGE UP]	Move to current field in next record
[CTRL]+[PAGE DOWN]	Move to current field in previous record
[PAGE UP]	Move to previous record screen
[PAGE DOWN]	Move to next record screen

Mouse

Click the appropriate navigation button outlined below
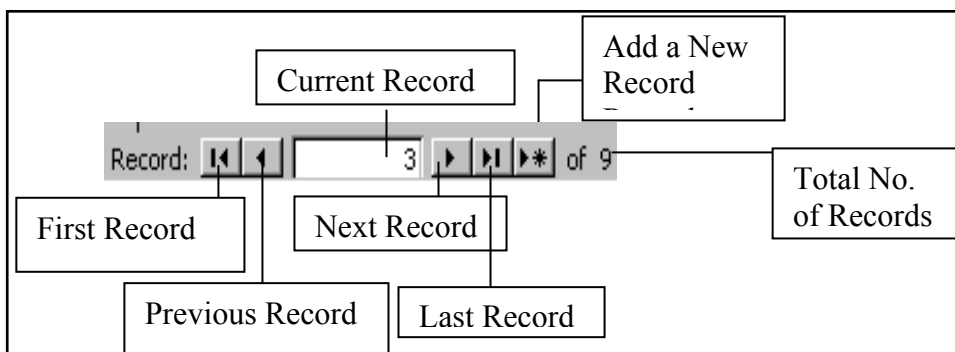
10.3   The Form Wizard

Tabular Form Wizard

The fields in each record appear on one line, with the labels displayed once at the top of the form.

☞   **To create a tabular form using the Wizard**

- Select the Forms button on the Objects Toolbar

- Select [New] from the Toolbar

- Choose AutoForm: Tabular
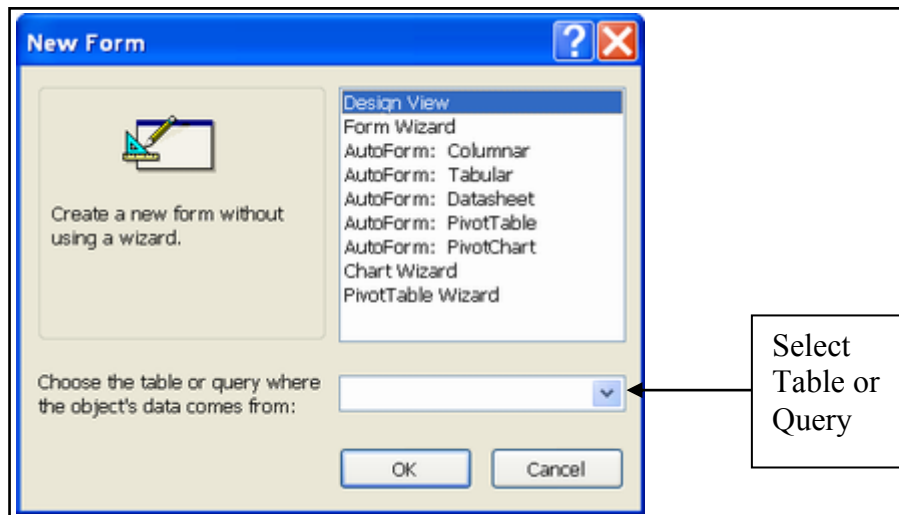- Select the table or query that you wish to base your form on
- Choose OK

Datasheet Form Wizard

The fields in each record appear in row-and-column format, with one record in each row and one field in each column. The field names appear at the top of each column.

☞   **To create a Datasheet form using the Wizard**
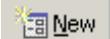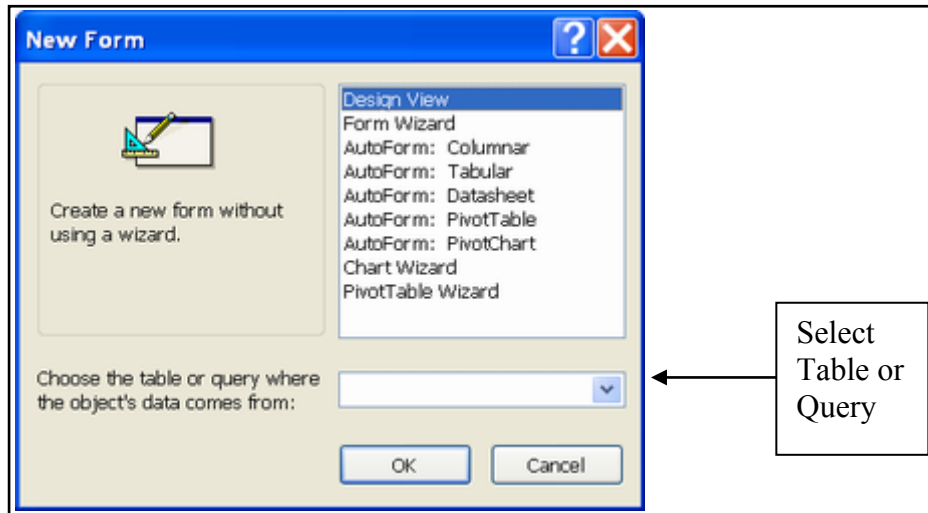
- Select the Forms button on the Objects Toolbar

- Select from the Toolbar
- Choose AutoForm: Datasheet
- Select the table or query that you wish to base your form on
- Choose OK

Pivot Form Wizard

The form opens in PivotTable view. You can add fields by dragging them from the field list to the different areas in the view.

☞   **To create a Pivot form using the Wizard**

- Select the Forms button on the Objects Toolbar
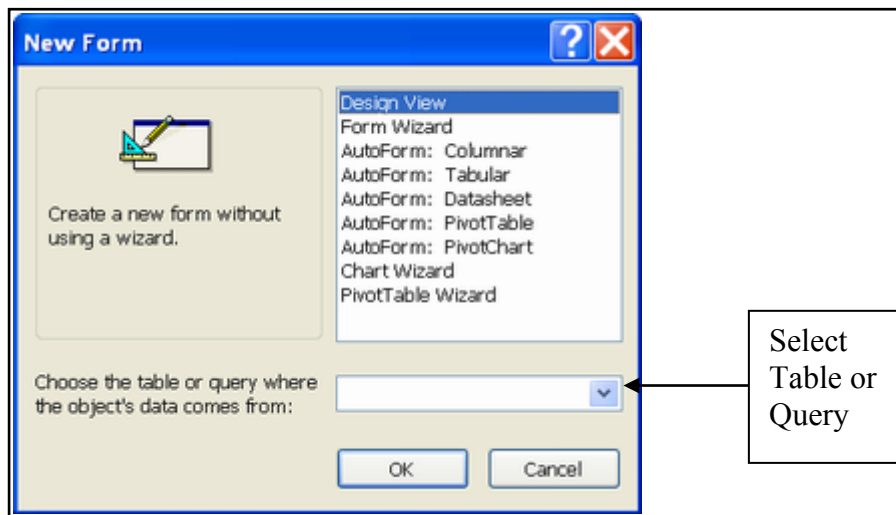- Select   New   from the Toolbar
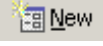
- Choose AutoForm: Pivot Table
- Select the table or query that you wish to base your form on
- Choose OK

Creating Forms using the Wizard

☞ **To create a form using the Wizard**

- Select the Forms button on the Objects Toolbar
- Select New from the Toolbar

- Choose Form Wizard
- Select the table or query that you wish to base your form on

- Choose OK
- Add the fields required, choose Next
- Choose the form layout required, choose Next
- Choose the form style required, choose Next
- Type a name for the form
- Choose the screen display required, e.g. Open the form to view or enter information
- Choose Finish

Access automatically creates a form. The form created by the wizard can be modified to suit the user's requirements.

Data Entry in Forms

☞ **To enter a new record using forms**

- Ensure the form is open
- Click on the new record button
- Enter the data in the first field and use the Enter or Tab key to move between fields

Resizing Forms

Notes

Section 11 Form Layout and Formatting

Objectives

The following are covered in this chapter:

- **Resizing and Moving Controls**
- **The Field List Box**
- **Selecting Controls**
- **Formatting Controls**
- **Format Painter and AutoFormat**
- **Properties of an item**

Download free eBooks at bookboon.com

11.1   Editing Forms

Once a form has been created, you may wish to amend the design of the form. Select the **Form** tab and then click on the **Design** button. The ruler acts as a guide to help you place controls on the form.

Shown below is a sample employees form in Design View
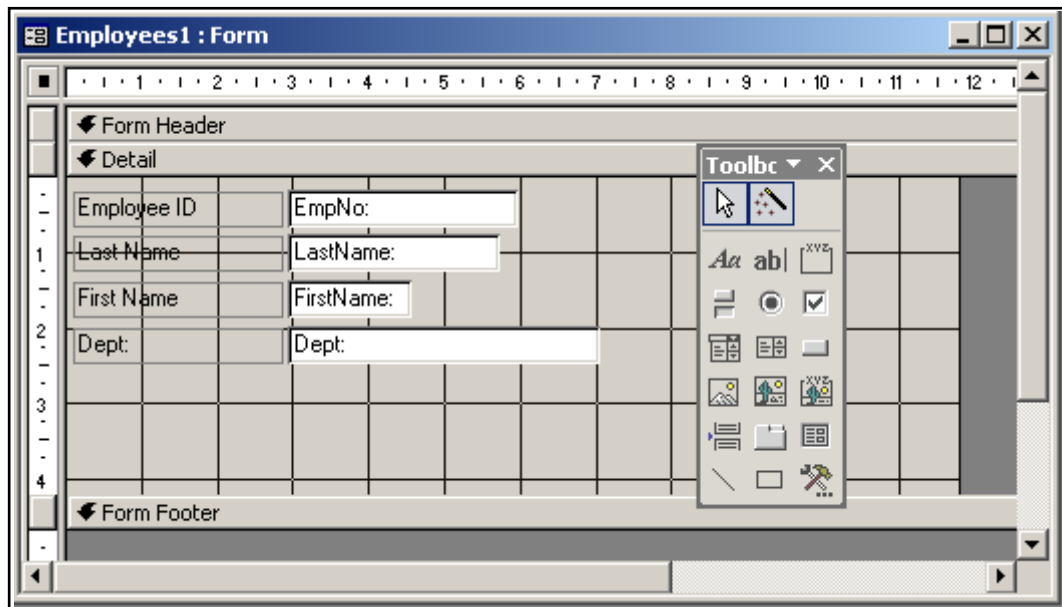
The field names on the form are text boxes called controls. A *Control* is an object which can be a text box, field, frame, label, line, etc. placed to display data, perform actions or as an enhancement. There are different types of controls:

Type	Description
Unbound Controls	An unbound control is not connected to a field; unbound controls display informative text, such as instructions on using a form, or graphics and pictures from other applications, e.g. lines and rectangles are unbound controls
Bound Controls	A bound control is tied to a field in a table or query; bound controls display, enter and update values from fields in the database – the values can be text, dates, numbers, Yes/No values, pictures, graphics or other objects and the most common type of bound control is a text box

Control items can be moved, sized, copied and deleted following selection.

☞   **To Select Individual Controls**

Mouse

 1. Click on the required control
 2. The control is selected and displays moving and sizing handles.
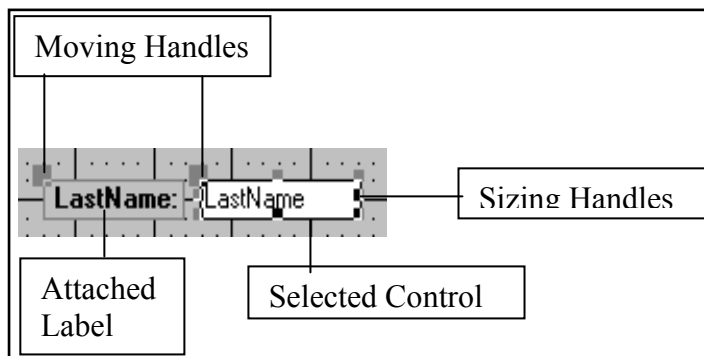
☞   **To Select a Group of Controls**

Mouse

 1. Click and drag from top left corner to bottom right corner of the group
 2. Release the mouse
 3. Before selecting ensure the mouse pointer is an arrow shape.

☞   **To Select Disparate Controls**

Mouse

1. Hold the [SHIFT] key whilst clicking in the required controls

    To deselect any controls click on the form background.

☞   **To Move Controls**

Mouse

1. Select the control
2. Position the mouse pointer on the control to move
3. Click and drag the control to a new location
4. The mouse pointer changes to a hand.
5. Release the mouse
    To move the control, without the label, click and drag the top left corner of the control to move. The mouse pointer changes to an upward pointing hand.

☞   **To Copy Controls**

Menu

1. Select the control
2. Choose Edit, Duplicate
3. Click and drag the copy to the required position
4. Release the mouse

☞   **To Size Controls**

Mouse

1. Select the control
2. Hover the mouse over one of the object handles and wait for a double sided arrow
3. Click and drag the sizing handle to the required size
4. Release the mouse

☞   **To Delete Controls**

Keyboard

1. Select the control
2. Press [DELETE]

11.2   The Field List box

The Field List box allows you to add fields from the underlying table (or query) to the form. The Field List box can be displayed or hidden using the button

☞   **To add a field to the form**

•   Click on the Field List button on
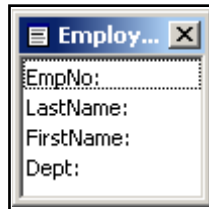
•   Select the field to be added from the list.
•   Drag the field name onto the form

11.3   Formatting Controls

Forms can have many enhancements applied, such as changing the background colour of the form and adding more fields.

The appearance of an entire form or just parts of a form can be altered.

☞   **To Format a Control**

Mouse

1. In the Design View, select the control
2. Click on the required button on the formatting toolbar, e.g. Bold

The formatting toolbar

11.4   Format Painter

If you have formatted a single control and would like to use the formats to enhance other controls on your form, use the format painter to copy and paste them.
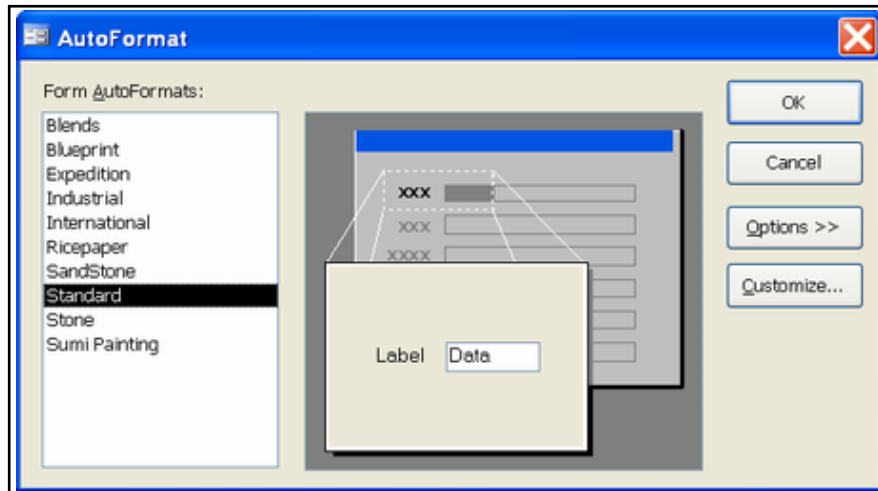
☞   **To use the Format Painter**

Mouse

1. In the Design View, select the control with the formats required
2. Click
3. The mouse pointer now has a paintbrush attached.
4. Click on the control that you wish to apply the formats to formats

☞   **To Format the Entire Form using Autoformat**

Mouse

1. In the Design View, click
2. Choose the AutoFormat required, e.g. Clouds

3. Choose OK

When using an AutoFormat, any attributes not required can be deselected using the following selections

Choose **options** to apply or omit font, colour, and border attributes.

Choose **customise** to display the following dialogue box
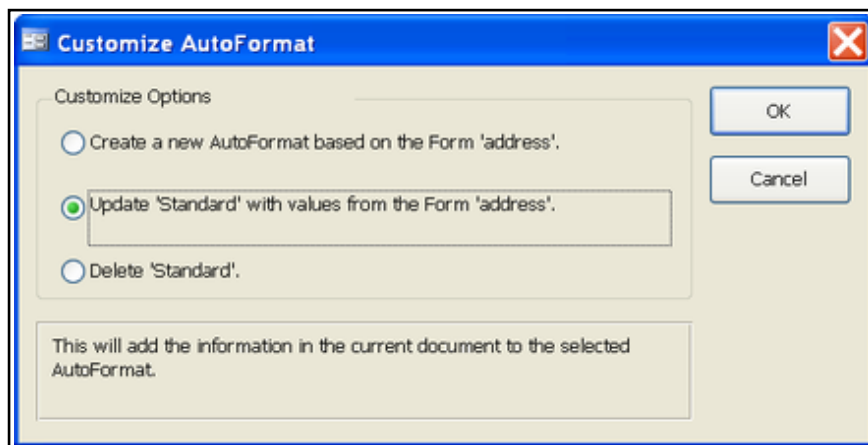
Choose	Description
Create a New AutoFormat Based on the Form 'current form name'	This will allow the user to create their own AutoFormats based on the current document
Update 'current AutoFormat name' with values from 'current form name'	This will add the information in the current document to the selected AutoFormat
Delete 'current AutoFormat name'	This will remove the AutoFormat from the list

Notes

Section 12 Creating Reports

Objectives

The following are discussed in this chapter

- **Standard Reports using the Wizard**
- **Page Components**
- **Customising Reports**
- **Grouping Data**
- **Viewing Reports**
- **Mailing Labels**

Download free eBooks at bookboon.com

12.1   Creating Reports

A *report* is an effective way to present data in a printed format. The user has control over the size and appearance of everything on a report, displaying information the way the user wants to see it.

Most of the information in a report comes from an underlying table or query, which is the source of the report's data. Other information in the report is stored in the report's design.

Text, data, pictures, lines, boxes, graphs and pictures, headers and footers can be incorporated into a report.
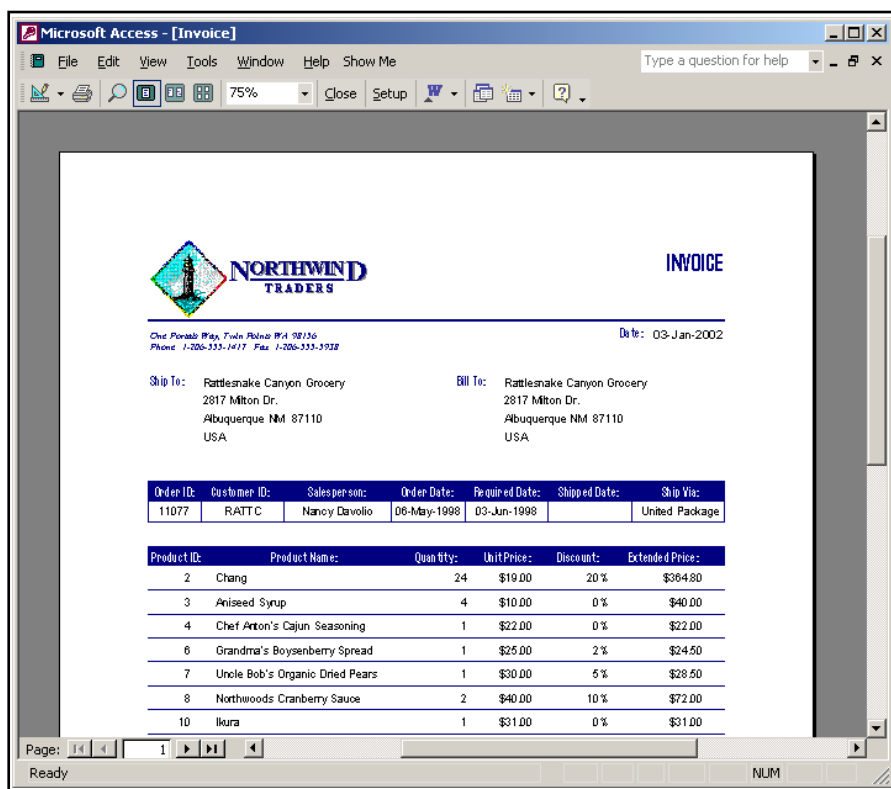
Types of Reports

Users can create their own reports or request that Access creates them using a Wizard. A Wizard speeds up the process of creating a report as it does all the basic work. When using a Wizard, Access prompts for information and creates a report based on the answers.

Wizards Available	Description
Report Wizard	Automatically creates a report based on the fields selected by the user
AutoReport: Columnar	Automatically creates a columnar report
AutoReport: Tabular	Automatically creates a tabular report
Chart Wizard	Creates a report with a chart
Label Wizard	Creates a report formatted for printing on labels

☞ **To Create a Report Using an Auto Report Wizard**

Mouse

- In the Database window, choose **Reports**
- Choose New
- Choose the AutoReport required, e.g. Tabular
- Choose the table/query that includes the data to base the report on
- Choose OK
- Access automatically creates a report. The report created by the wizard can be modified to suit the user's requirements.
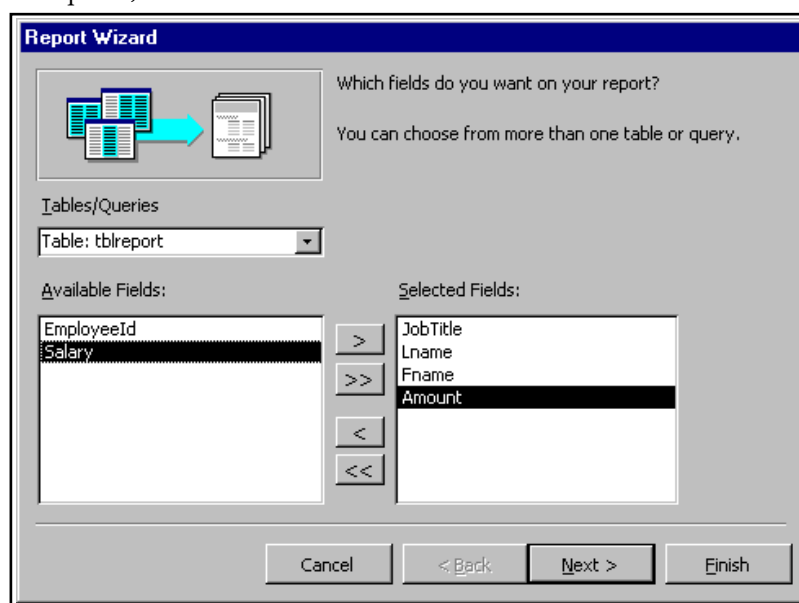
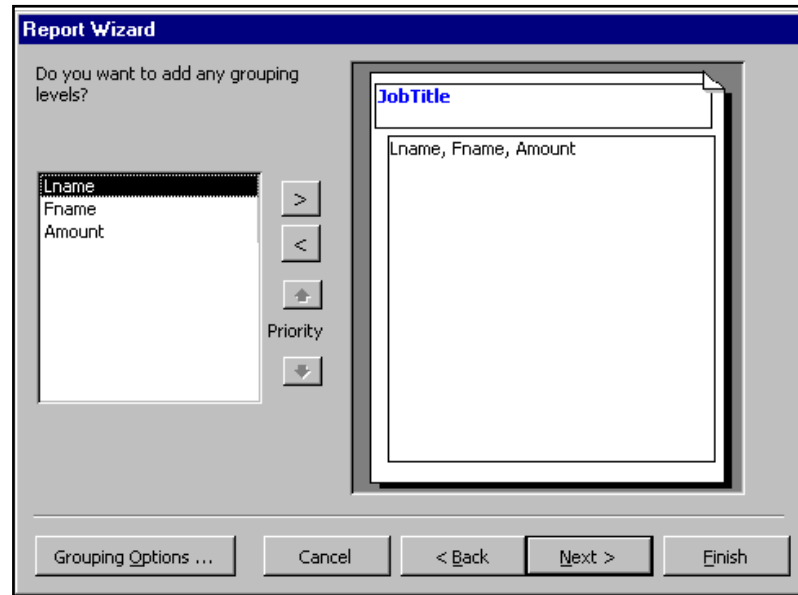☞   **To Create a Report Using the report Wizard**

Mouse

- In the Database window, choose **Reports**
- Choose New
- Choose Report Wizard
- Choose the table/query that includes the data to base the report on
- Choose OK

The Report Wizard now displays.
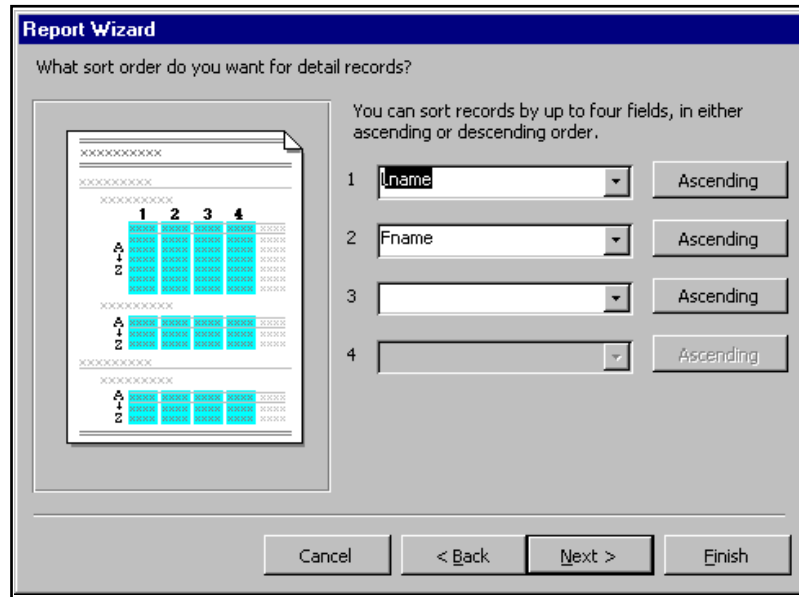
- Add the fields required, choose Next

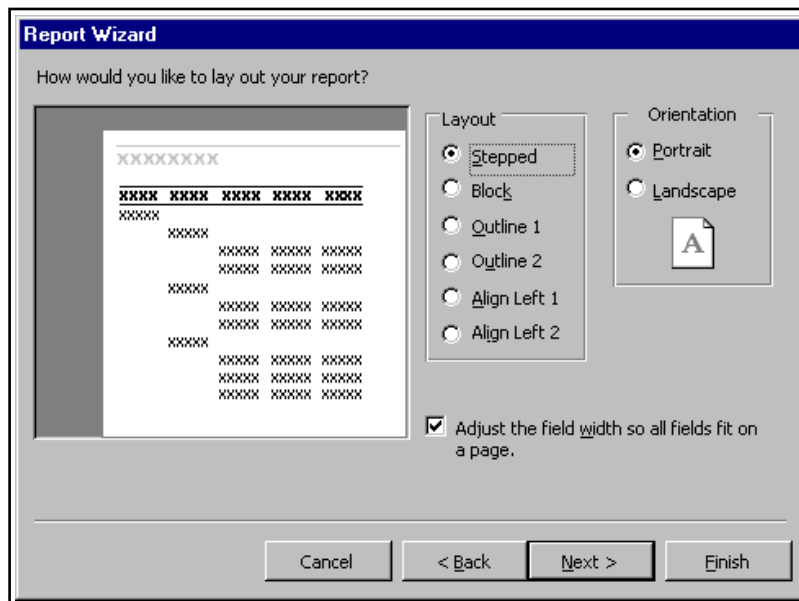- Add the grouping levels required, choose Next

By grouping records that share a common value, users can then calculate subtotals and make report design easier to read, e.g. a staff report can be grouped according to department or salary range.
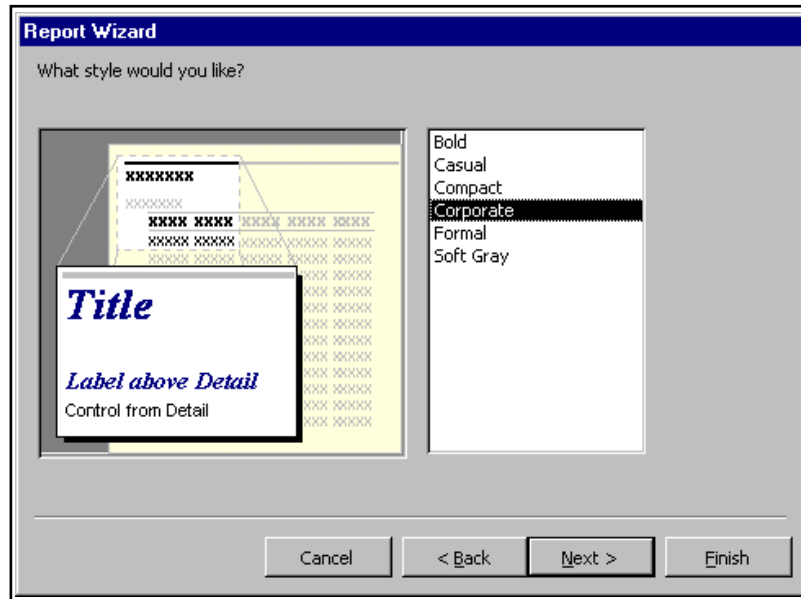
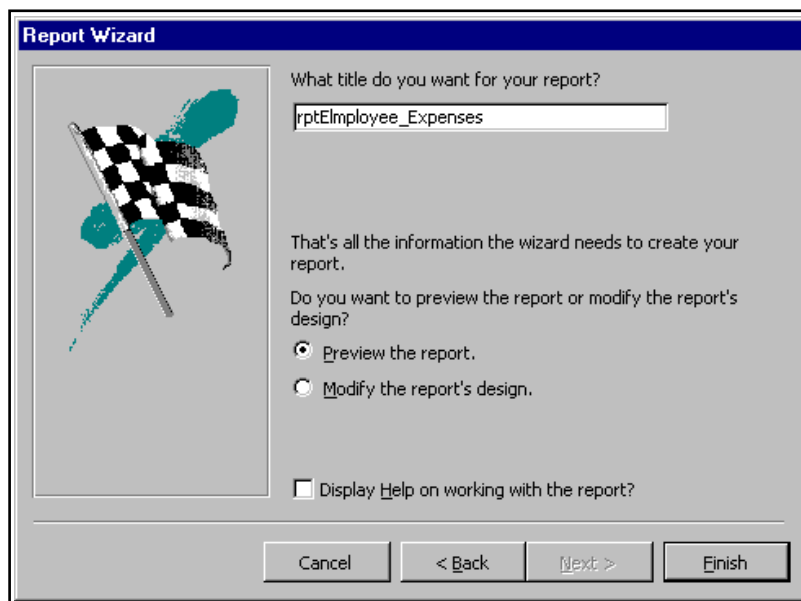- Choose the sort order required, choose Next

- Choose the report layout required, choose Next

- Choose the report style required, choose Next

- Choose the screen display required, e.g. Preview the report
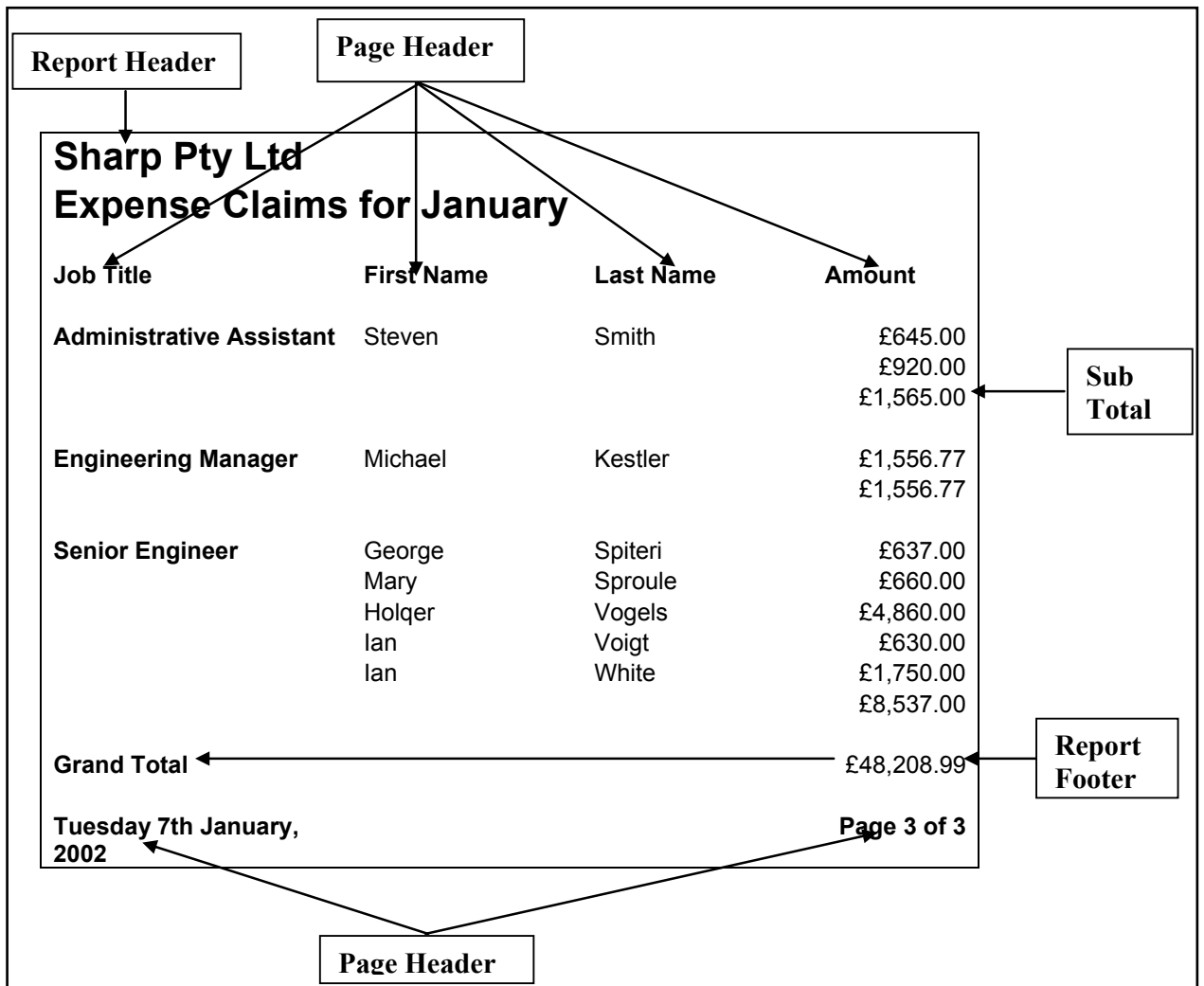

- Choose Finish

Access automatically creates a report. The report created by the wizard can be modified to suit the user's requirements.

12.2   Page Components

A report is automatically created with page components, such as a page header and footer, as shown in the diagram below:

Report Header	Page Header

Sharp Pty Ltd
Expense Claims for January

Job Title	First Name	Last Name	Amount
Administrative Assistant	Steven	Smith	£645.00
			£920.00
			£1,565.00
Engineering Manager	Michael	Kestler	£1,556.77
			£1,556.77
Senior Engineer	George	Spiteri	£637.00
	Mary	Sproule	£660.00
	Holqer	Vogels	£4,860.00
	Ian	Voigt	£630.00
	Ian	White	£1,750.00
			£8,537.00
Grand Total			£48,208.99
Tuesday 7th January, 2002			**Page 3 of 3**

Sub Total

Report Footer

Page Header

Report Header

Can include a logo, company name etc. Appears only at the start of the report.

Report Footer

May include a grand total or summary of data. Appears only at the end of the report.

Page Header

Appears at the start of each page. The page header is used to repeat headings.

Page Footer

Appears at the bottom of each page. The page footer may include the current date, a page number, or a sub-total for the page.

All aspects of the report can be modified in Design View

12.3   Grouping and Summarising Data

Grouping data arranges data according to a field and allows you to sub-total categories. In the example shown you can see that the expenses have been grouped together in job categories, and that each category shows its sub-total.

If you have chosen to group data, the next step of the Report Wizard displays with a Summary Options button below:
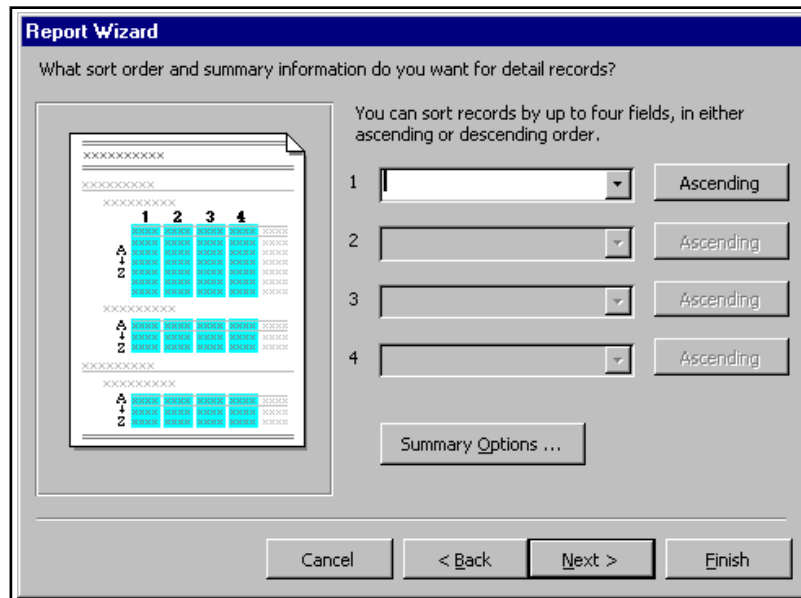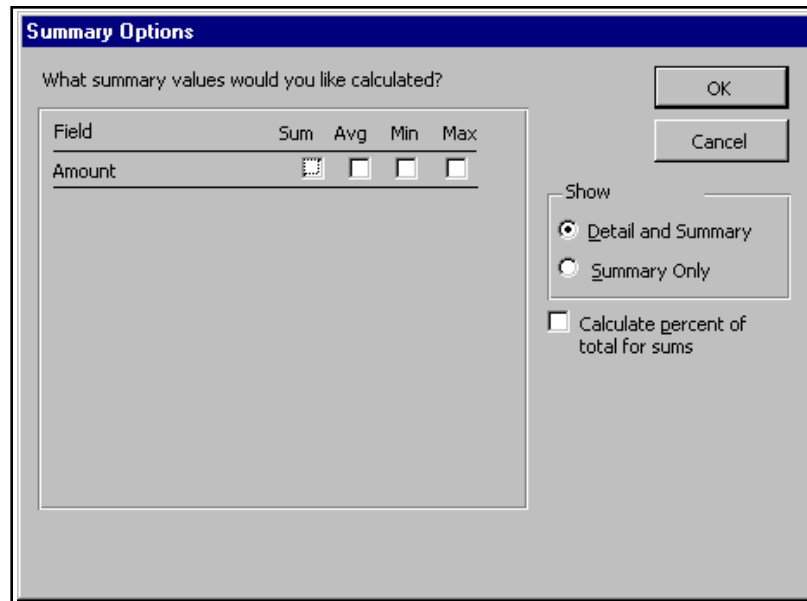
Click on the Summary Options button to display the following screen:

12.4   Viewing Reports

Reports can be viewed in three formats
Design View
Layout Preview
Print Preview

Design View

☞   **To Display Design View**

Mouse

- In the Database window, click   Design

Layout Preview

In this format the general layout, fonts and font size can be viewed with sample data.

☞   **To Display Layout Preview**

Mouse

- In Design View, click
- Choose Layout Preview
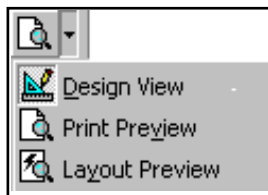
Print Preview

Print Preview is used to view the report as it will print.

☞   **To Print Preview**

Mouse

- In the Design View, Click
- Choose Print Preview
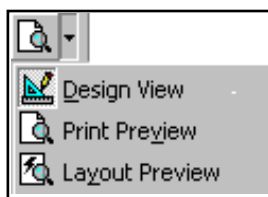
12.5   Mailing Labels

The Mailing Label report creates mailing labels in a wide variety of formats compatible with different labels manufacturers and sizes.

☞   **To create mailing labels**

- Create a new Report and choose Label Wizard
- Specify which table or query is to be used
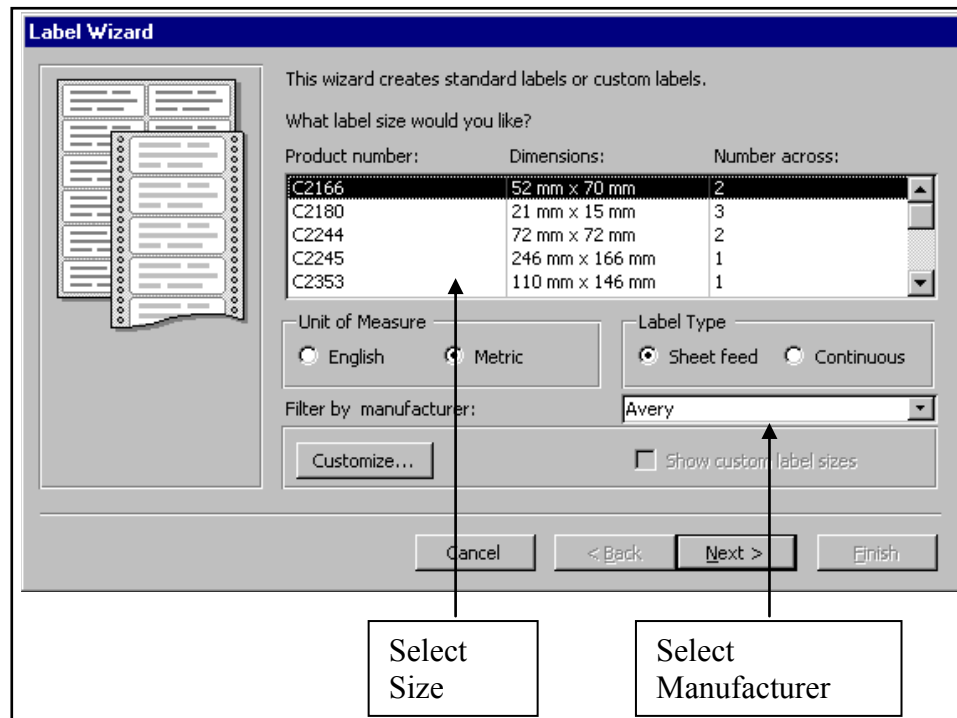
- Specify the type of label you will use. If you do not have the know the label number you can set the label size by measuring the labels you have.
- Click on Next

- Specify the font, size, weight and other attributes for the label and click on Next
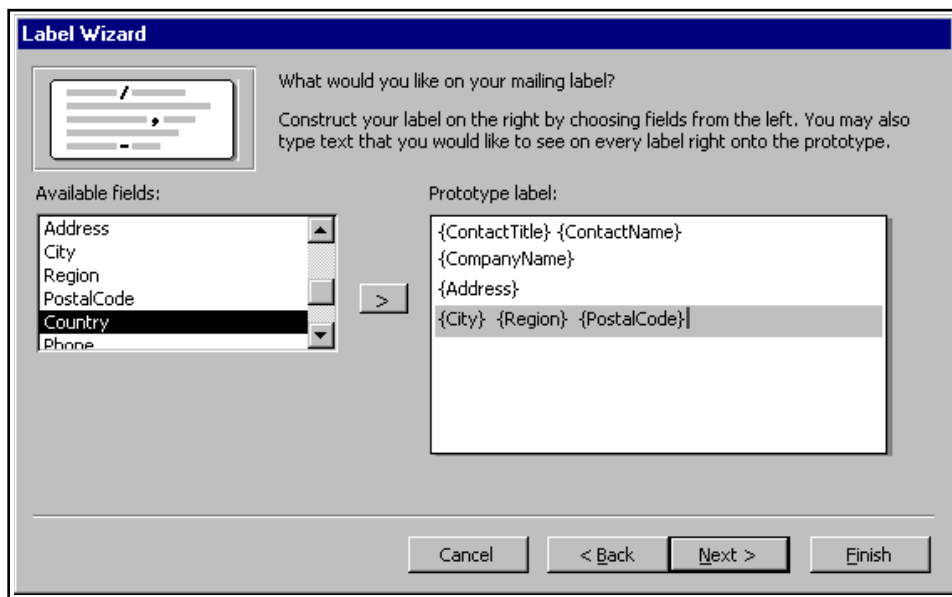

- Copy the fields from the Available Fields box to the Prototype Label.
  The Available Fields box details the data, which can be added to each mailing label. The Prototype Label box allows up to ten rows of data and punctuation to be present on each label.

  Double click on a field to add it to the Prototype Label

Additional text, such as PRIVATE can be added by typing into the Prototype box.

- Click on Next
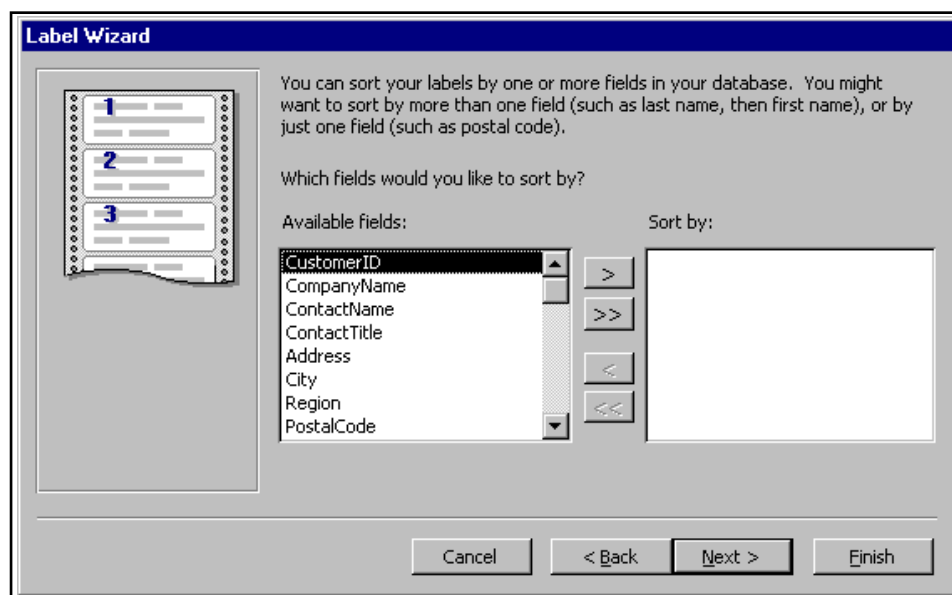
- At this stage, you can sort the records before printing the labels. You may wish to sort into Postcode order.
- Click on Next
- Access suggests a name for the report. Type a new name of you wish and click o Finish.

Notes