

Data entry and editing

Topic objectives

Having created the table structures, the next stage is to enter data into the tables. Data can also be entered through queries and, more importantly, forms. Here you will see that entering data via a table is very straightforward.

This topic will show you how to:

- open a table in Datasheet view and enter data into the datasheet
- move around the datasheet so data can be edited.

Data entry

In the preceding topics we have worked with tables in Design view only. For data entry, a table needs to be opened in Datasheet view.

Whether you open a table in Design or Datasheet view, it is easy to switch from the Datasheet view to the Design view and vice versa. If you make changes to the table structure in Design view, you will be asked to save them if you switch back to the datasheet view. Use the button on the toolbar for switching between the views (Figure 5.1):

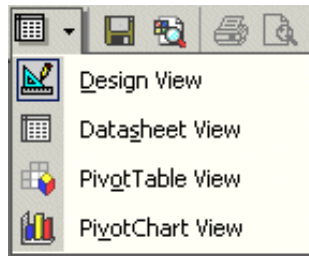


FIGURE 5.1

In Datasheet view, the headings of the columns are the field names you previously defined. Each row in the datasheet is a record and, as you complete each record, it is automatically saved into the table.

Entering client data

To open a table in Datasheet view:

- 1 Open the **Total Health and Fitness** database. In the Database window, if the **TABLE** object type is not selected, click on it.
- 2 Double-click on the **Client** table or select the **Client** table, and choose the **OPEN** button. The table will open in Datasheet view. Notice there are some fields already filled with the values you set as defaults. You can enter an alternative value or do nothing, thereby accepting the default value. Note, you could delete the value to leave the field blank if the required property is not set.
- 3 Do not enter a value into the **Client No** field but press **ENTER** to move to the next field. This is an AutoNumber field and, if you do try to enter data into it, the entry will not be accepted. Let Access number all the Client number fields.
- 4 Enter the data for the **Client** table as shown in the Appendix. After entering the data for each field, move to the next by pressing **ENTER**, **TAB** or **→**. When

entering the data for the logical fields use a tick to indicate Smoker or Male (blank is Non-smoker or Female). When you press **ENTER** after entering data into the last field of a record, Access saves the record.

- 5 While you are entering the data, try testing the validation rules (those Access applies and those that have been defined). Try entering text into a date type field. Access expects the correct data type, and the Office Assistant will inform you of your mistake (see Figure 5.2).

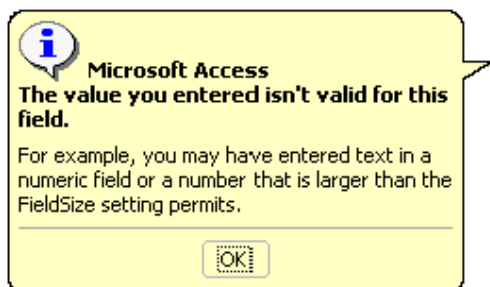


FIGURE 5.2

- 6 Try entering a **Status** number greater than 6. This will test the validation rule set up in the field properties for **Status** (Figure 5.3).

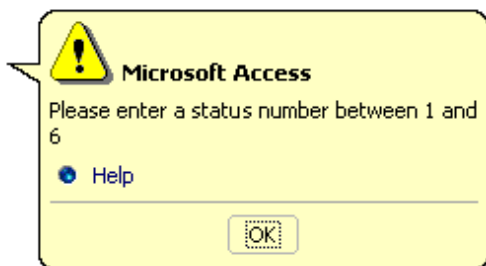


FIGURE 5.3

- 7 Skip fields that are blank (see below for more details about data validation, editing data and using **UNDO**).

Data validation


Data is validated on entry. If it does not conform to the data type set for that field an error message will be generated. If the data entered breaks any validation rule that has been set as a property for that field, if there is validation text, this appears as the error message.

Fields without data (null values)

Sometimes not all the data for a record is available (for example, the telephone number may be missing). To skip a field, simply press **ENTER** or **TAB** to take you to the next field. It is acceptable to skip fields where the data is not vital but, for data such as the **Last Name**, it is not acceptable.

Where a field is left without an entry it is said to be *null* (i.e. there is nothing there). If you perform mathematical calculations on numeric fields, Access ignores fields containing nulls.

Undo

If you use the wrong command by mistake or something unexpected happens, always try **EDIT – UNDO** or click on the **UNDO**  button before doing anything else.

Editing data

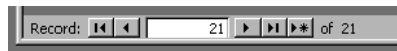
When the records have been entered into a table, this data is available to be used, as is evident in the following topics. The data in the datasheet can be checked and, if necessary, any errors corrected.






Moving around records

You can move around records in the datasheet by using either **EDIT – GO TO**, the **UP** and **DOWN ARROW** keys, **PAGE UP** and **PAGE DOWN** keys or the vertical scroll bar. However, the most efficient way to move around records in large databases is with the navigation buttons in the lower-left corner of the window.

Navigation buttons and record indicators

In the status bar of the datasheet window are the navigation buttons and record indicators. The record number of the currently selected record is displayed.



<i>To move to</i>	<i>Click</i>
First record	
Last record	
Previous record	
Next record	
New record	
Specific record	Click in record counter box <input type="text" value="1"/> (or press F5), type the record number you want, and then press ENTER .

Selecting data in the datasheet


Various parts of the datasheet can be selected, as described below:

<i>To select</i>	<i>Do this</i>
A single field	Move the pointer to the left-hand side of a cell so it changes shape into a white cross and click
A word in a field	Double-click on the word
A record	Click in the record selector at the left edge of the record, or choose EDIT – SELECT RECORD
More than one record	Click and drag in the record selector edge for the required number of records

A field column	Click on the column heading (the field name at the top of the column)
Several field columns	Click on the first column heading required for the selection and drag to the last

Moving and copying fields

A field may be moved, by selecting it, using **EDIT – CUT**, clicking in the cell where the field is to be moved to and using **EDIT – PASTE**.

A field may be copied, by selecting it, using **EDIT – COPY**, clicking in the cell where the copy is required and using **EDIT – PASTE**. Alternatively you may prefer to use the cut, copy and paste  buttons.

Moving and copying records

A complete table or a selected set of records of a table can be copied to other tables or within the existing table via the clipboard. It is possible to hold up to 12 clips on the clipboard. Records may be moved and copied using **EDIT – CUT/COPY** and **EDIT – PASTE**. Generally moving isn't an operation you would need to carry out within the same table as the records can be displayed in any order chosen. Moving and also copying can be carried out between databases providing the table structures are similar.

One instance where copying is useful is for making a backup of a table. Should you decide to revise the data types of fields in a table, it is advisable to make a backup of the table first in case mistakes are made that could result in the loss of data.

Backing up a table

Using copy and paste, a backup of the **Client** table will be made:

- 1 Choose **TABLES** in the **DATABASE WINDOW**.
- 2 Select the table **Client** and choose **EDIT – COPY**.
- 3 Next, create a database to hold the backup by choosing **FILE – NEW**, selecting the folder in which the backup file is to be stored, keying **THF backup** in the **FILE NAME** box and clicking on **CREATE**. This database is now active.
- 4 Choose **EDIT – PASTE** and in the **TABLE NAME** box of the **PASTE TABLE AS** dialog box key in **Client backup**
- 5 Check the default option **STRUCTURE AND DATA** is selected before clicking on **OK**.
- 6 Use **FILE – CLOSE** to close the backup database.

If this backup is needed to restore a damaged file, open the backup database, select and copy the table, open the normal database (use **FILE – OPEN**) and paste as described above.

Note: You can also use **FILE – EXPORT** and **FILE – GET EXTERNAL DATA** to perform this backup operation (see Topic 26) or, alternatively, you may back up the

entire database by first closing it and switching to Explorer (or My Computer) and copying the file to another folder or to floppy disk or other backup medium.

Adding photographs

In the **Client** table a field **Photograph** of type OLE object has been created. OLE stands for 'Object Linking and Embedding'. In the **Photograph** field a link to a client's image file can be stored and this photograph can be displayed in a form or report. As we are entering data in the **Client** table datasheet, we will leave creating this kind of link until we have created a form for the **Client** table in Topic 11. If after adding links to image files you view the **Client** table in datasheet view, Access will display the name of the object type (for example, bitmap image).