

Section 3

Tables

By the end of this Section you should be able to:

Move Around a Table
Preview and Print a Table
Views
Layout and Design

Exercise 10 - Tables

Guidelines:

A **Table** is one of the **Objects** contained in a **Database**. It is the main building block on which every other function depends.

Each different item of data in a table is called a **Field**. Many fields are needed to describe what the data represents. In the following picture, the field names **Country**, **Region**, **Capital**, etc. have been created. Data that represents these fields will be seen below the appropriate field name, in a column. Data can now be entered in rows. Each row is called a **Record**. Each record is made up of the same number of fields, but not all fields in a record may contain data.

When data is entered into a table, it is automatically saved. Only when the design or layout of a table is changed, will it be necessary to save the changes.

The following diagram shows a table that has had its field names defined and has had data entered in rows. Each row represents a different record in the database.

Field names (used as Column labels)

Record

Field

Country	Region	Capital	Population	Currency	Language
AFGHANISTAN	ASIA	KABUL	14.8	ALGHANI	PASHTU
ARGENTINA	SOUTH AMERICA	BUENOS AIRES	31.9	PESO	SPANISH
AUSTRALIA	AUSTRALASIA	CANBERRA	16.4	DOLLAR	ENGLISH
AUSTRIA	EUROPE	VIENNA	7.6	SCHILLING	GERMAN
BULGARIA	EUROPE	SOEIA	8.9	LEV	BULGARIAN
CANADA	NORTH AMERICA	OTTAWA	26.3	DOLLAR	ENGLISH
DENMARK	EUROPE	COPENHAGEN	5.1	KRONE	DANISH
MEXICO	CENTRAL AMERICA	MEXICO CITY	85.2	PESO	SPANISH
MOROCCO	AFRICA	RABAT	25.6	DIRHAM	ARABIC
NEW ZEALAND	AUSTRALASIA	WELLINGTON	3.4	DOLLAR	ENGLISH
IRELAND	EUROPE	DUBLIN	3.5	POUND	IRISH
ISRAEL	MIDDLE EAST	JERUSALEM	4.4	SHEKEL	HEBREW
KUWAIT	MIDDLE EAST	KUWAIT CITY	2	DINAR	ARABIC
PERU	SOUTH AMERICA	LIMA	21.8	INTI	SPANISH
SOUTH AFRICA	AFRICA	PRETORIA	35.8	RAND	AFRIKAANS
TURKEY	MIDDLE EAST	ANKARA	55.3	LIRA	TURKISH
UK	EUROPE	LONDON	57	POUND	ENGLISH
USA	NORTH AMERICA	WASHINGTON	248.2	DOLLAR	ENGLISH
RUSSIA	ASIA	MOSCOW	288.7	RUBLE	RUSSIAN
FRANCE	EUROPE	PARIS	55.9	FRANC	FRENCH
ITALY	EUROPE	ROME	57.5	LIRE	ITALIAN

Record Navigation Buttons

Exercise 11 - Using the Mouse within a Table

Guidelines:

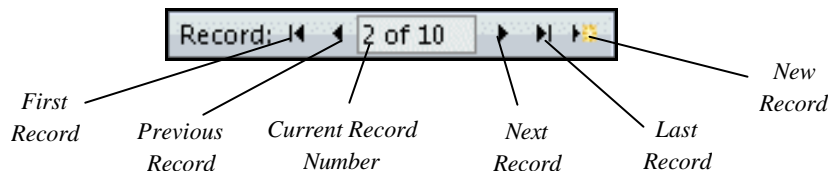
When a table is opened in **Datasheet View**, whole records or fields in the table can be navigated using the mouse.


Actions:


1. Open the **Records** database and the **Patients** table in **Datasheet View**.
2. To select text ready for editing, move the mouse pointer (cursor) over the **Surname** field **Dawson**. Click and drag over part of the field contents. The letters will be highlighted, ready for editing.



ID	Surname	Firstname	Gender
1	Bateson	Robert	M
2	Dawson	Beryl	F
3	Thomas	Harold	M
4	Coleridge	Shaun	M
5	Bhatt	Ramji	M

3. The number of the currently selected record and the total number of records in the table are shown in the **Record Navigation** buttons.



4. The **Record Navigation** buttons also allow movement through the records in a table. Click the **Next Record**  button to move down individual records.

Note: The record following the last complete record in a table is always blank. This record is shown with a , to the left of the blank record.

5. Click the **First Record** button, , to move to the top of the table.
6. Move the cursor to the **Firstname** column, move down so that the cursor is over the word **Ramji** and double click. The text, **Ramji** is selected.
7. The mouse can also be used to select an entire field. Move the cursor to the left edge of **Bateson**.
8. The pointer should change to . Click the mouse to select the whole field. This is not quite the same as selecting all of the text in a field.

9. Leave the **Patients** table open for the next exercise.

Exercise 12 - Using the Keyboard within a Table

Guidelines:

The keyboard may be used to move about the table instead of the mouse. The following keys are used to move from field to field and record to record.

→	-	moves one field to the right
←	-	moves one field to the left
↓	-	moves one record down
↑	-	moves one record up
End key	-	moves to end of record
Home key	-	moves to start of record
Tab key	-	moves one field to the right
<Shift Tab> key	-	moves one field to the left
<Ctrl Home> key	-	moves to the top left of the table
<Ctrl End> key	-	moves to the bottom right of the table

*Note: When two keys are mentioned such as **Ctrl** and **End**, the first key (**Ctrl**) should be held down while the other key (**End**) is pressed and released.*

Actions:

1. Still using the patients table, select the entire field **Philips** from the third record and press **<Ctrl Home>** to move to the top left corner of the table, (first record, first field).

Note: The movement keys move between fields and records as described here only when the whole field is selected first. If text is selected, some movement will be within one field.

2. Press → to move to the next field, the **Surname** field.
3. Keep pressing → to move right to the last field of the record. This may be **Contact No**, or it may be a blank column, *Add New Field*. Press → again to move to the first field on the next record.
4. Press **<End>** to move to the end of a record, i.e. the last field in the record.
5. Move to the bottom right of the table by pressing **<Ctrl End>**.
6. Practise moving about the table using the keyboard, but be careful not to make any changes to the data.
7. Close the **Patients** table and the **Records** database.

Exercise 13 - Database Views

Guidelines:

There are several different view options available for each database object. For tables, the two that will be used are:



Datasheet View

displays the table content, i.e. the data, such as names and addresses

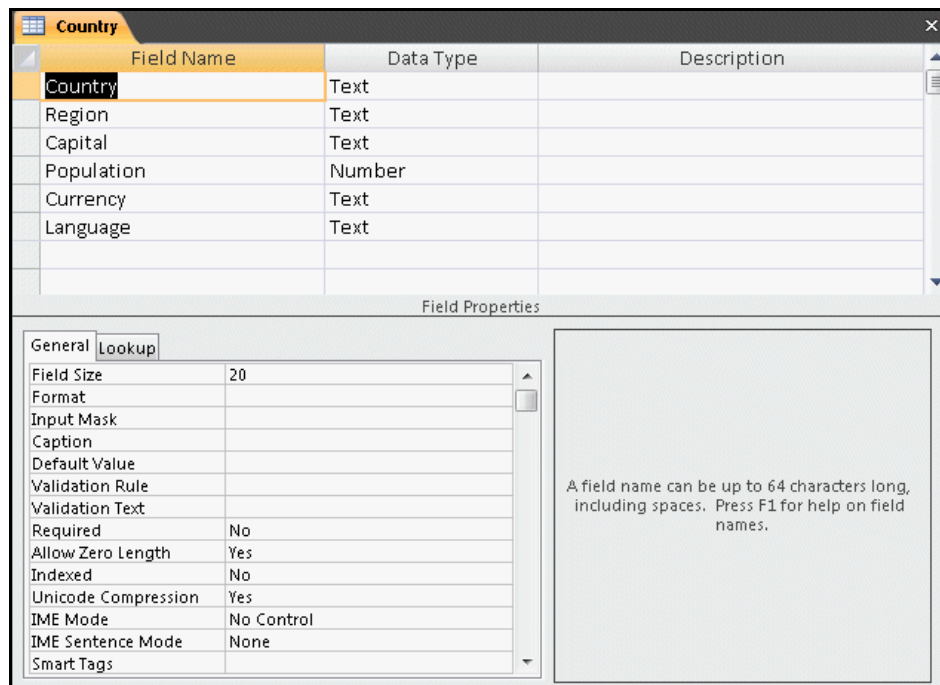


Design View

displays the design of the table or how the names and addresses will be displayed.

Actions:

1. Open **The World** database.
2. Right click on the **Country** table in the **Navigation Pane**, and select **Design View** from the menu. The **Country** table is displayed in **Design View** showing the names of the fields or columns and the types of data each contains. You will look at this again later.




3. As the table is open in **Design View**, the **Ribbon** now shows the **Design** tab. Click the drop down arrow on the **View** button at the left of the tab.




continued over

Exercise 13 - Continued

4. Select  **Datasheet View**. The view is switched to **Datasheet View**.
5. Notice how the column headings are defined by the field names seen in **Design View**.

Country	Region	Capital	Population	Currency	Language
AFGHANISTAN	ASIA	KABUL	14.8	ALGHANI	PASHTU
ARGENTINA	SOUTH AMERICA	BUENOS AIRES	31.9	PESO	SPANISH
AUSTRALIA	AUSTRALASIA	CANBERRA	16.4	DOLLAR	ENGLISH

*Note: **Datasheet View** shows all of the information displayed as a table on the screen and is the view most commonly used for data entry.*

6. Now that **Design View** is not selected, the **Home** tab is displayed again. This tab also has a **View** button on the left. The default for the **View** button selection is **Design View**, as shown by the icon, . Click on the icon, not the drop down arrow, to change to **Design View**. Notice the field names at the left are the same as the column headers in the table. Also notice the data types available in this table - **Text** and **Number**.

7. Click on the **Datasheet View** button, , at the left of the **Design** tab, to toggle back to **Datasheet View**.
8. Close the **Country** table and **The World** database.

*Note: Any changes made in **Design View** would need to be saved.*

Exercise 14 - Checking Column Width

Guidelines:

When **Field Names** are long and the data contained in the field is short, the database can **truncate** or cut off some of the field name. When data is longer than the default column width, the data display will be truncated. In either case it is an easy matter to display all of the content by changing the column width.

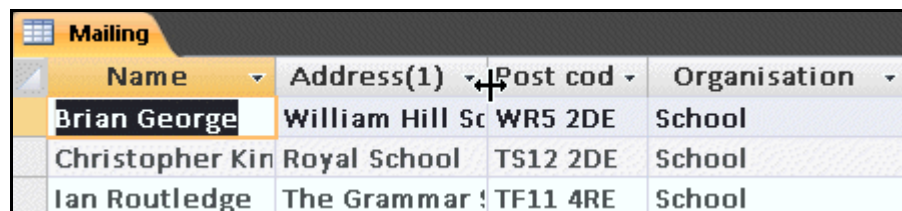
Actions:

1. Open the database **Address Book** and the table **Mailing**. As you can see, the **Address(1)** column has data cut off or truncated.
2. Now look at the last column. The field name or column heading has been truncated. It should read **Organisation**.
3. There are two ways to deal with this problem. First, place the cursor on the right border of the heading of the column to be altered, **Organisation**, as shown below. The cursor changes to a double-headed arrow.



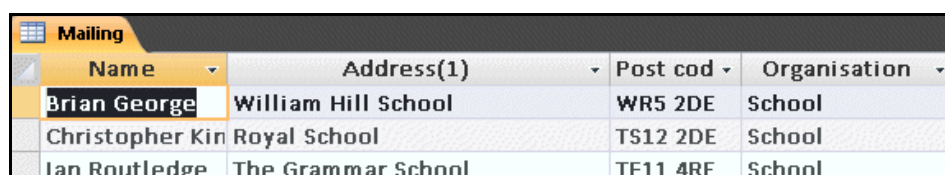
Name	Address(1)	Post cod	Organi
Brian George	William Hill Sc	WR5 2DE	School
Christopher Kin	Royal School	TS12 2DE	School
Ian Routledge	The Grammar	TF11 4RE	School

4. Click and drag the cursor to the right. This will increase the column width. Drag it until all of the text in the heading can be seen.
5. The second way of handling this problem is to place the cursor again on the right edge of the required field name, **Address(1)**, so that the cursor changes to a double-headed arrow.



Name	Address(1)	Post cod	Organisation
Brian George	William Hill Sc	WR5 2DE	School
Christopher Kin	Royal School	TS12 2DE	School
Ian Routledge	The Grammar	TF11 4RE	School

6. Double click and the column width will increase to accommodate the largest field in this column, i.e. the column will fully display all the data within it, even data that is not on this screen.



Name	Address(1)	Post cod	Organisation
Brian George	William Hill School	WR5 2DE	School
Christopher Kin	Royal School	TS12 2DE	School
Ian Routledge	The Grammar School	TF11 4RE	School

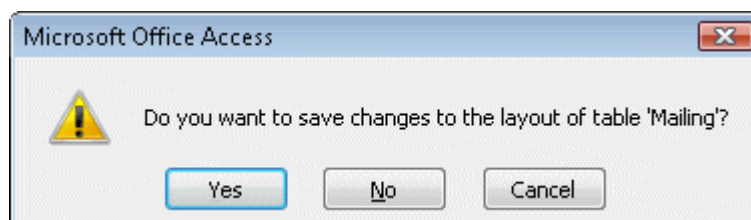
Exercise 15 - Saving Layout and Design Changes

Guidelines:


As already mentioned, any changes in data are automatically saved. However, changing column widths is regarded as a layout change. Any change made in **Design View** is a design change. Both of these must be saved manually.

Actions:

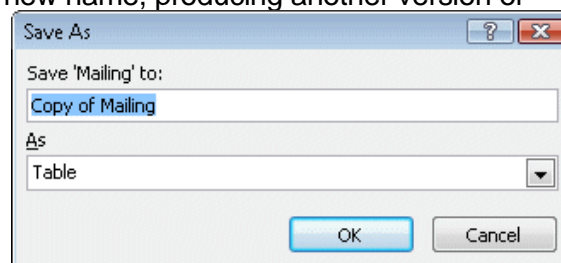
1. Close the **Mailing** table from the previous exercise by clicking its **Close** button or right clicking its tab and selecting **Close**. Because layout changes have been made, the table will need to be saved, and Access will display a warning message.



2. Select **Yes** to save the changes and close the table. Selecting **No** would not save the changes, but would close the table leaving the columns still truncated. Selecting **Cancel** would return to the table without saving.
3. Open the **Mailing** table again and increase the width of the **Name** column.
4. The table can be saved before closing. Click the **Office Button** and select **Save**. The table is saved.

*Note: The table can also be saved by right clicking its tab and selecting **Save** or clicking the **Save** button,  from the **Quick Access Toolbar**.*

5. The table can also be saved with a new name, producing another version of the original. Click the **Office Button** and select **Save As**.
6. A name for the new table could be entered here, but for this exercise click **Cancel** to abandon the save process.
7. Close the table. All changes have been saved so there is no warning message.
8. Leave the **Address Book** database open for the next exercise.



Exercise 16 - Previewing and Printing a Table


Guidelines:

Once a table has been formatted as required, it can easily be printed. It is important to preview a table before printing to make sure it looks as you expect it to. This is when truncated columns may be noticed and improved.


Actions:

1. Open the **Mailing** table again. If all of the data and field names are not fully visible, increase the column widths where needed, taking care to **Save** the changes.
2. You are now going to check all the data for printing. Click the **Office Button** and move the cursor over the **Print** option. Do not click.
3. Click on **Print Preview** from the options on the right of the panel. The table is shown as it will print and the **Print Preview** tab is displayed.

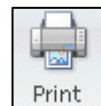
Name	Address(1)	Postcode	Organisation
Brian George	William Hill School	W15 2DE	School
Christopher King	Royal School	TS12 2DE	School
Iain Routledge	The Grammar School	TF11 4RE	School
Jean Valdron	St Christopher's Secondary	WA12 5TG	School
Kylie Minute	Austrelia College	HA6 6YT	FE

4. Positioning the mouse over the page changes it to . Click once in the page to zoom in. Check that all the data is displayed.

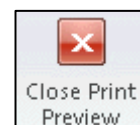
*Note: Zoom can also be controlled by using the **Zoom** button on the **Print Preview** tab or the **Zoom** slider on the right of the **Status Bar**.*

5. The mouse pointer now changes to . Click in the page to zoom out.

6. Click the **Print** button on the **Print Preview** tab to display the **Print** dialog box. Click **OK** to print one copy of the table as shown.



7. Click the **Close Print Preview** button to close **Print Preview** and return to **Datasheet View**.



8. Close the **Mailing** table and the **Address Book** database by your preferred method.