CHAPTER 1

ACCESS 2010 ORIENTATION

INFOCUS

ICA11_A802

Microsoft Access 2010 is described as a ***database management system*** (DBMS).

A database is a structure that contains data. You enter data into the database via a variety of sources including typing (data entry), importing from other sources, and even electronically and automatically from other equipment (data logging). The data can then be manipulated by the DBMS to provide a range of useful information.

In this session you will:

- ✓ gain an understanding of how ***Access*** works and what it can be used for
- ✓ learn how to start ***Microsoft Access 2010***
- ✓ gain an understanding of the ***Backstage View***
- ✓ learn how to open an existing database file
- ✓ gain an understanding of the ***Access 2010*** screen
- ✓ learn how to work with the ***Navigation*** pane to list database objects
- ✓ learn how to work with a table
- ✓ learn how to work with other database objects
- ✓ learn how to close a database file
- ✓ learn how to exit from ***Access 2010***.

Sample

UNDERSTANDING MICROSOFT ACCESS 2010

Microsoft Access 2010 has a reputation for being a more difficult application to learn and use than its Office 2010 siblings: Word, Excel, and PowerPoint. There are many reasons for this and a good orientation to Microsoft Access will greatly help in understanding how this powerful application can be used to perform a range of useful jobs for work and even for pleasure.

1 How Access is Different

Unlike it's Office 2010 siblings, Word, Excel, and PowerPoint where you can start to create something useful almost immediately and directly on the screen, Access 2010 needs you to first design and create structures to hold your data, and then create special template layouts for displaying, manipulating and presenting that data in a useful and meaningful way. In other words, rather than just play around and look and see how things are going, Access requires more thought, more planning, and good designs in order to be used effectively. While there is a lot of *learn by doing* involved with Access, there is also great deal more *learn before doing* associated with it.

2 How Access Works

Basically, Access allows you to do two main things: firstly, it allows you to *store* huge amounts of data, and secondly, it allows you to *manipulate* that data to produce relevant and useful information. This is what ***Database Management Systems*** (DBMS) are all about, and the good news is that Access is one of the easiest of these to learn and use.

Data is *stored* in ***tables***. Tables are structures made up of rows and columns and are similar in appearance and operation to Excel worksheets. You do however need to design and create these tables yourself, before the data can be entered.

The data in tables is *manipulated* using ***forms***, ***reports***, and ***queries***. A *form* is mostly used for data entry (although you can enter data directly into a table). A *report* is used to manipulate the data and present it either on the screen or printed on paper in a more pleasing way. A *query* is used to produce a sub-set of the data – for example, in a sales system you may only want to see the sales in the northwest region.

Forms, *reports*, and *queries* are created as layout frameworks. Once the framework has been designed you can then run the data from the tables through them. Indeed, this is a common theme throughout Microsoft Access: *design* versus *display*. You create or modify a form, or report, or query in ***design mode***, and then preview the data in ***display mode***.

Even tables (that store your data) conform to this design/display metaphor. You *design* a table structure, then enter the data in a *display* (they call it a ***datasheet***) view.

Tables, forms, reports, and queries are known as ***database objects***. In fact each of these is like a mini-application within the broader Access application. Each has a very large range of commands and options that you can use to both design the structure or framework and also use to display data.

3 What can Access be Used for?

Virtually anything – no exaggeration!

You can use Access to create a system for managing your music or stamp collection, the membership at your local soccer or polo club, the petty cash, inventory and stock control, or sales at work, and much, much, much more. Any situation where you need to store data, manipulate it, and then present it as useful information is a perfect contender for Access.

The only snag with Access is that unless you use one of the pre-created system templates, you need to plan and design the system and the database objects (the tables, forms, reports, and queries) used in that system. And this is what takes time and learning to do.

Sample

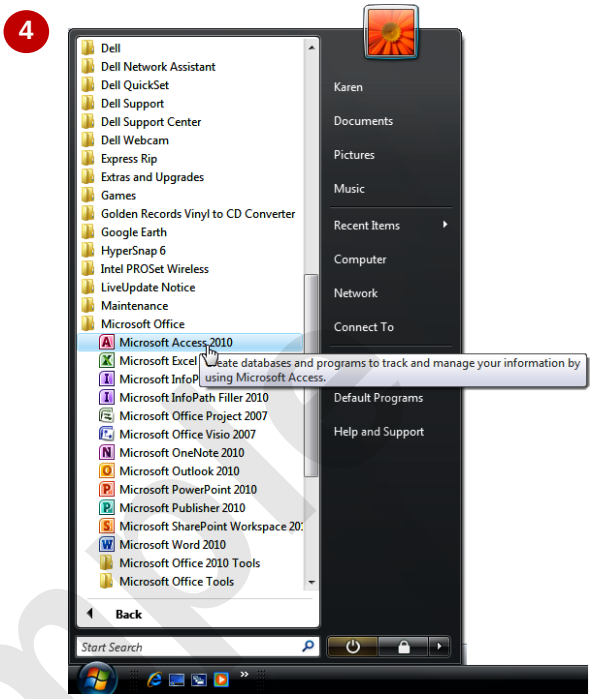
STARTING ACCESS

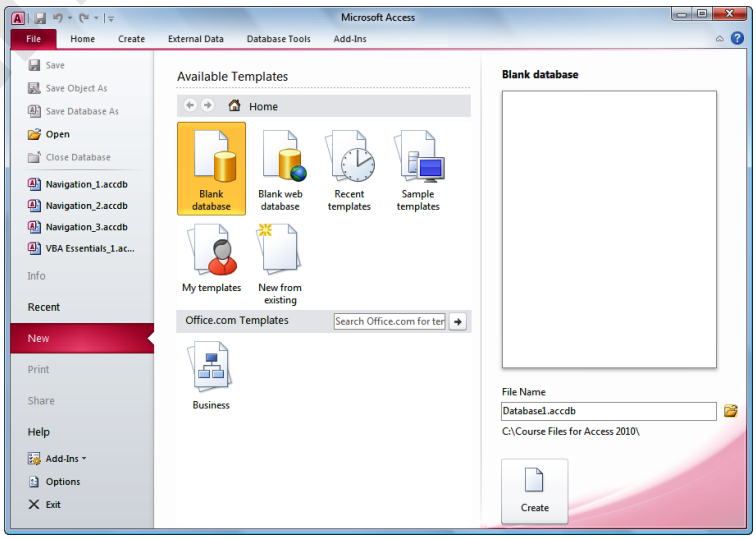
To create a new database, or work with an existing one, the first thing that you need to do is to start ***Microsoft Access***. As a standard software application, how ***Microsoft Access*** is started is determined by Windows. For example, it can be started from the Windows ***Start menu***, from a ***shortcut***, or even by opening a database that was created previously in Access.

Try This Yourself:

Before you begin ensure that the computer is on and that the Windows desktop is displayed...

1. Click on the ***Start*** button in the bottom left corner of the screen to display the ***Start Menu***
2. Click on ***All Programs*** to see all of the programs that you have access to
3. If you can't see ***Microsoft Office*** in the list, use the scroll bar to scroll down until it can be seen
4. Click on ***Microsoft Office*** to expand the sub-menu and see all of the applications available to you, then hover the mouse pointer over ***Microsoft Office Access 2010*** to see a brief description of what this application does
5. Click on ***Microsoft Office Access 2010*** to display the *"Getting Started"* screen





Sample

For Your Reference…

To ***start Microsoft Access***:

1. Click on the ***Start*** button
2. Click on ***All Programs***, click on ***Microsoft Office***, then click on ***Microsoft Office Access 2010***

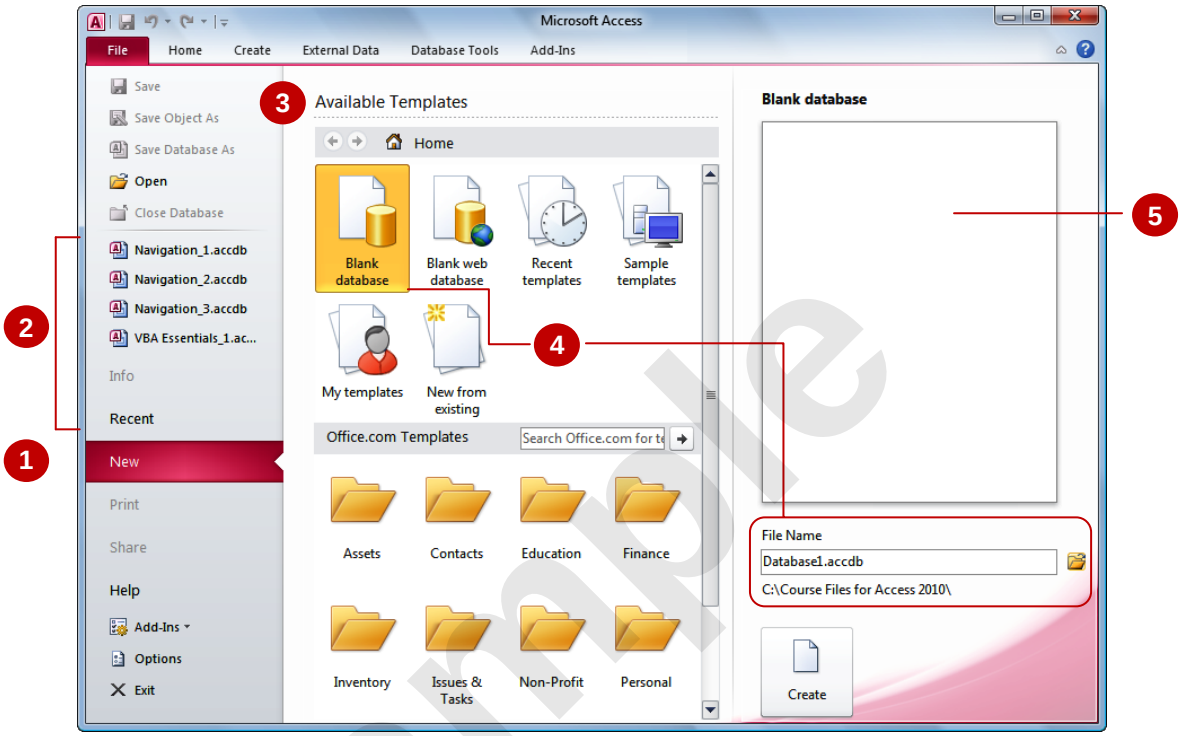
Handy to Know…

You can also start Access by:

- Double-clicking on an Access ***shortcut***
- Double-clicking on a database file icon in a file listing
- Choosing a database from the ***Recent Items*** list on the ***Start*** menu

UNDERSTANDING THE BACKSTAGE VIEW

Before you are allowed to properly enter Microsoft Access 2010, you must have a ***database file*** open. A database file is where your database objects (*tables*, *forms*, *reports*, *queries* etc) for a particular system or project you are working on are located. The ***Backstage View*** is, amongst other things, a gateway to Access where you can nominate which database to open.



1 When you open Microsoft Access 2010 or click on the ***File*** tab, *Backstage View* is displayed. By default, the **New** tab is selected. This tab offers a number of ways for you to create a new database. To open an *existing* database, you need to click on **Open**, which will display a traditional ***Open*** dialog box.

2 The ***Recent*** tab displays databases that have been recently opened. This is a particularly useful feature if you find that you are regularly using the same database and coming back to it on a frequent basis. This list can display up to the last 50 opened databases. All you need to do is to click on the desired database and it will be opened for you.

You will also see the last 4 opened databases listed directly in the ***File*** tab, for quick access.

3 The ***Available Templates*** icons provide you with a range of pre-designed database templates that come with Access and also enable you to use online templates from ***Office.com***. The templates generally already have database objects such as tables, forms, reports, and queries designed and created for you. All you need to do is to enter the data into the tables.

While templates sound like a good idea, they can actually cause you more work and trouble. It is unlikely that a template will exactly meet your needs, so some modification will be necessary to adapt it to your requirements. It can sometimes be quite time-consuming learning how the template is structured and then making the required changes.

4 Click on the ***Blank Database*** icon in ***Available Templates*** to create a new, blank database. You need to specify a ***File Name*** for the new database and select location for where it will be stored by clicking on the ***Browse*** icon .

5 The ***Preview*** offers a large thumbnail of the selected database.

Sample

OPENING AN EXISTING DATABASE FILE

A good way to see how Access 2010 works is to ***open an existing database file***. If the database file has recently been opened it will appear in the ***Recent Database*** listing in the left panel of the ***Backstage View***. However, if it doesn't appear here you will need to use the **Open** option to display the ***Open*** dialog box, to search for and open the database file.

Try This Yourself:

Before starting this exercise ensure that the Backstage View is displayed...

1. Select **Open** in ***Backstage View*** to display the ***Open*** dialog box

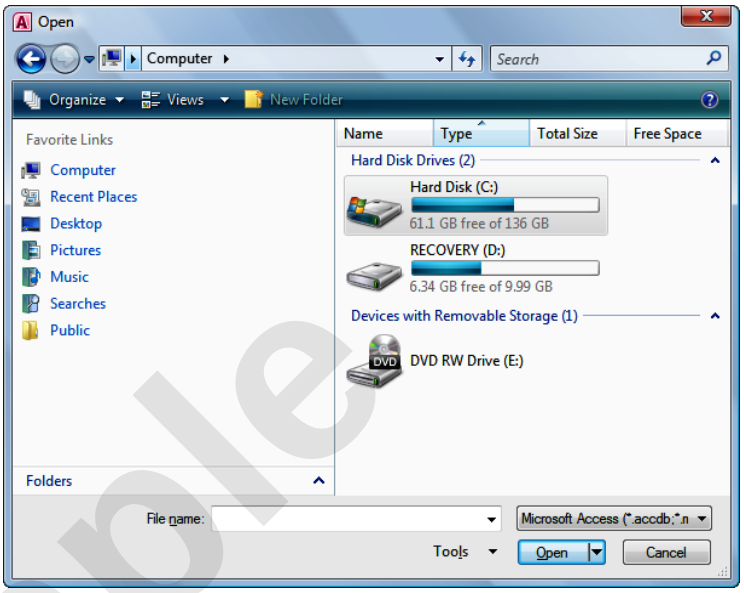
   Let's change the folder location to display our existing database files…

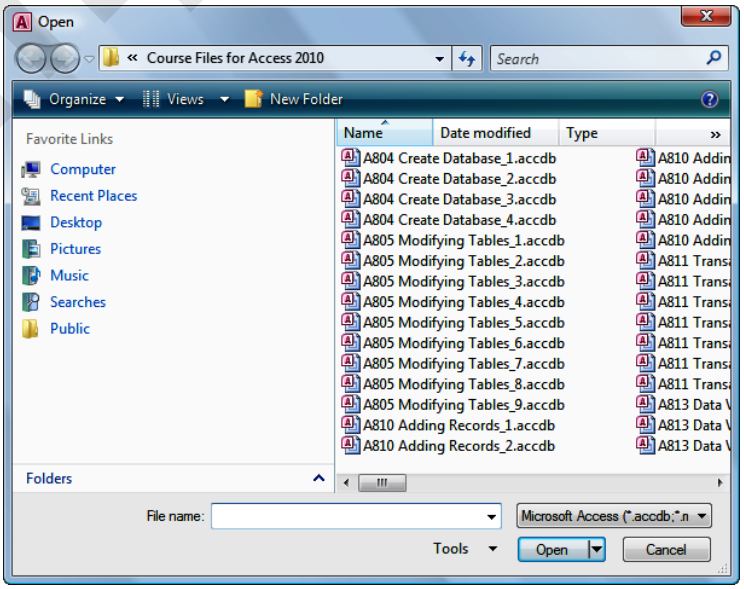
2. Click on ***Computer*** in ***Favourite Links*** in the left pane of the dialog box

   This will display all of the hard drives and devices on your computer…

3. In the right pane, double-click on the icon for C drive (***Hard Disk C:***), then double-click on the ***Course Files for Access 2010*** folder

4. Click on ***A Sample Database*** and click on **[Open]** to open the database





Sample

For Your Reference…

To ***open*** an ***existing database*** file:

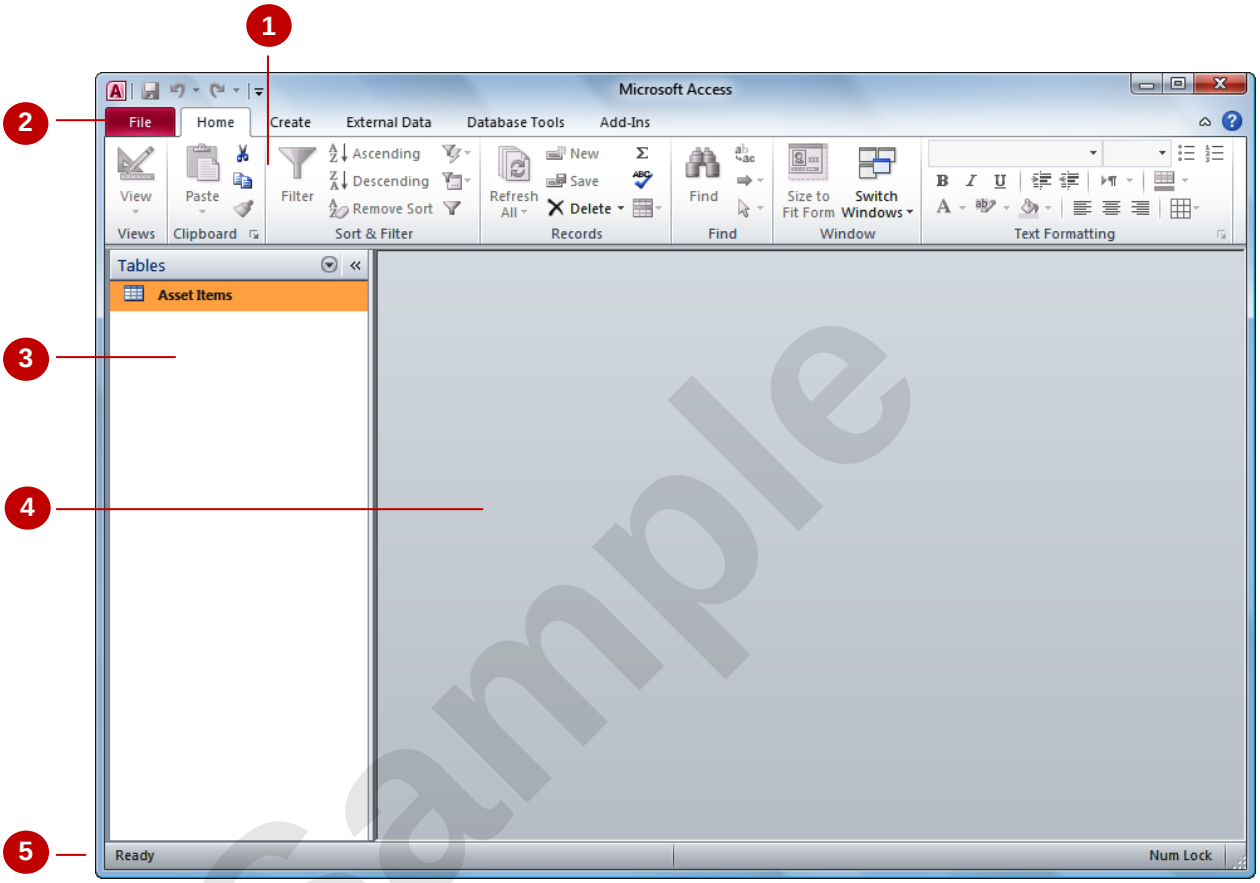
1. Select **Open** in ***Backstage View***
2. Move to the folder that contains the file
3. Click on the file to select it
4. Click on **[Open]**

Handy to Know…

- You can also use the keyboard shortcut Ctrl + O at any time to display the ***Open*** dialog box.

UNDERSTANDING THE ACCESS 2010 SCREEN

At first glance there's nothing much to an Access 2010 database screen. The screen really only gives you access to either *create*, *modify*, or *run* one of the ***database objects*** in a database file (tables, forms, reports, queries, etc). It isn't until you choose to perform one of these operations that the screen really becomes more intricate.



Sample

1. The ***Ribbon*** is the tabbed band that appears across the top of the window. It is the command control centre of Access 2010. You use the ***tabs*** on the Ribbon to access ***commands*** which have been categorised into ***groups***. Commands can be buttons or sometimes include ***galleries*** of formatting options that you can select from. This area really comes to life when a database object is opened.

2. The ***File*** tab of the ***Ribbon*** is used to access file management functions such as saving, opening, closing, printing, etc. *Access Options* are also available so that you can set your working preferences and options for Access 2010.

3. The ***Navigation Pane*** is used to list and navigate the various database objects (*tables*, *forms*, *reports*, *queries*, etc) that exist in the database. In the screen above this area has been filtered so that only table objects appear – there is only one table in this database and it is named ***Asset Items***.

4. The main part of the screen is the data area. Here a ***database object*** will appear either in design or in preview mode. The database object must first be opened before it will appear so, even though ***Asset Items*** in the screen above is selected, it hasn't yet been opened.

5. The ***Security and Message*** area displays information about the database object that is currently open. Since there are no objects open the area isn't really showing much at the moment other than the fact that it is *ready* for you to start something.

WORKING WITH THE NAVIGATION PANE

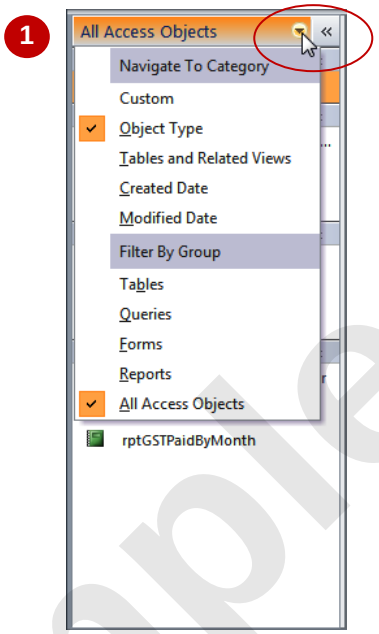
The ***Navigation Pane*** is an essential part of Access 2010 as it provides you with access to the database objects that are in your database file. The pane itself can be filtered to show you more or less objects and you should get a pretty good grasp on how it operates before commencing to create tables or other database objects.

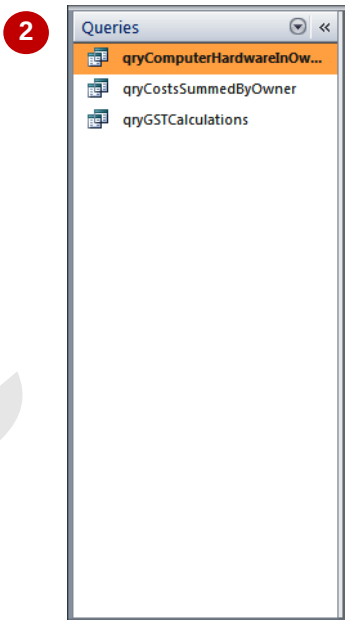
Try This Yourself:

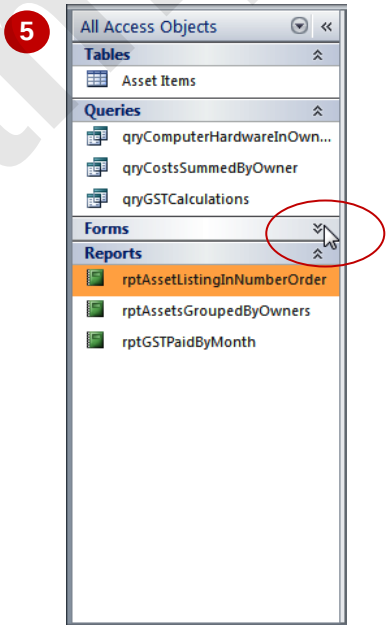
Same File

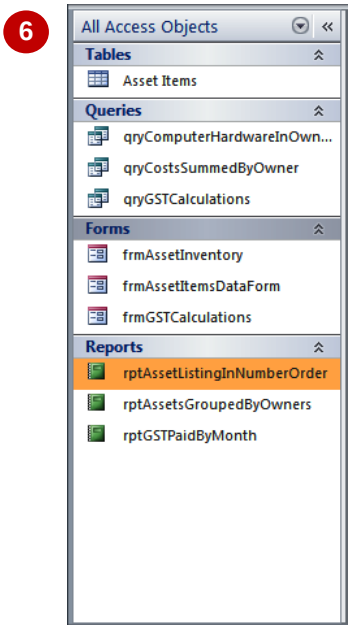
Continue using the previous file with this exercise, or open the file A Sample Database.accdb...

1. Click on the drop arrow for ***All Access Objects*** in the ***Navigation*** pane to display the menu
2. Click on ***Queries*** under ***Filter by Group*** to see all of the saved query objects in the database
3. Click on the drop arrow again and click on ***Reports*** to see a list of all of the reports
4. Click on the drop arrow again and click on ***All Access Objects*** to see all of the database objects
5. Click on the up arrow for ***Forms*** in the ***Navigation Pane*** to hide all of the forms
6. Click on the down arrow that have appeared to display the forms again









Sample

For Your Reference…

To ***filter database objects***:

1. Click on the drop arrow for the object type in the ***Navigation*** pane
2. Click on the desired filter option

Handy to Know…

- The ***Navigation*** pane menu is more complex than we've used here. Once you've become proficient with it you can list the objects by date created or modified. However, the best option is to list objects grouped according to their type.

WORKING WITH A TABLE

A ***table*** is used in a database file to store data. A table has a defined structure and in Access 2010 whenever the table is open, it is seen either in ***Design*** mode or in ***Datasheet*** mode. When it is in ***Design*** mode you can make changes to the structure of the table but not the data itself, and when it is in ***Datasheet*** mode you can make changes to the data but not the structure.

Try This Yourself:

Same File

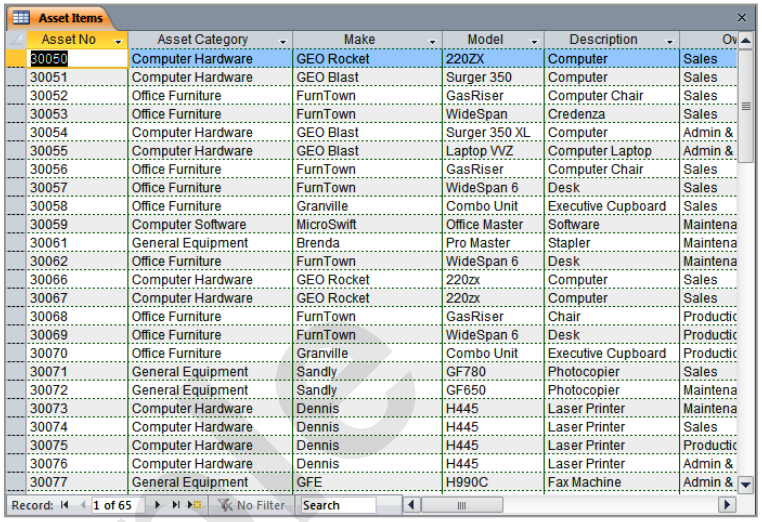
Continue using the previous file with this exercise, or open the file A Sample Database.accdb...

1. Double-click on ***Asset Items*** under ***Tables*** in the ***Navigation*** pane, to open the table in ***Datasheet*** mode – this mode provides access to the actual data
2. On the ***Home*** tab of the ***Ribbon***, click on the top half of ***View*** in the ***Views*** group, to switch to ***Design*** view

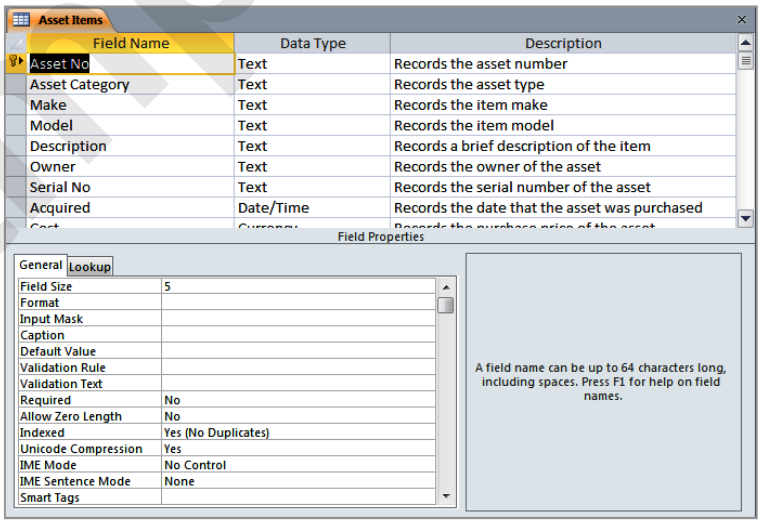
   This mode displays the structure of the table.

   There are also view buttons at the bottom of the screen which allow you to toggle between design and datasheet modes…
3. Click on ***Datasheet*** view in the bottom right of the window to see the data again
4. Click on ***Close*** to close the table

1



2



Sample

For Your Reference…

To ***display*** a ***table***:

1. Double-click on the table name in the ***Navigation*** pane to display the table in datasheet view
2. Click on ***View*** in the ***Views*** group on the ***Home*** tab to toggle the view to ***Design*** mode

Handy to Know…

- Clicking on ***View*** in the ***Views*** group (on the ***Home*** tab of the ***Ribbon***) toggles between ***Design*** and ***Datasheet*** views. For example, if you are in ***Datasheet*** view, clicking on it will switch to ***Design*** view and vice versa.

WORKING WITH OTHER DATABASE OBJECTS

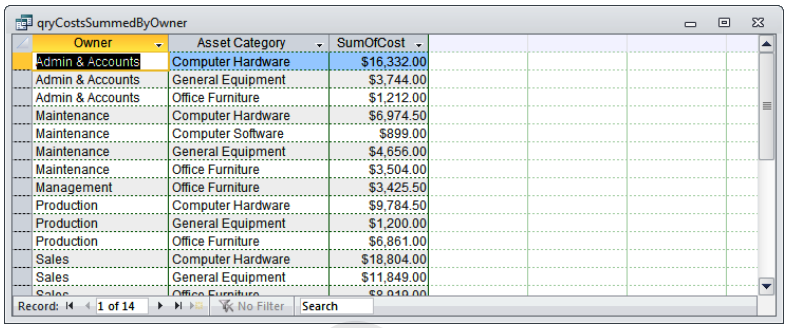
The key thing to remember with database objects including tables is that, when open, they will either be in ***Design*** mode where you can make changes to the structure or layout of the object, or in ***Data*** mode where data is parsed through the object's layout and presented to you. Once the object is open it is an easy matter to toggle between these two modes of operation.

Try This Yourself:

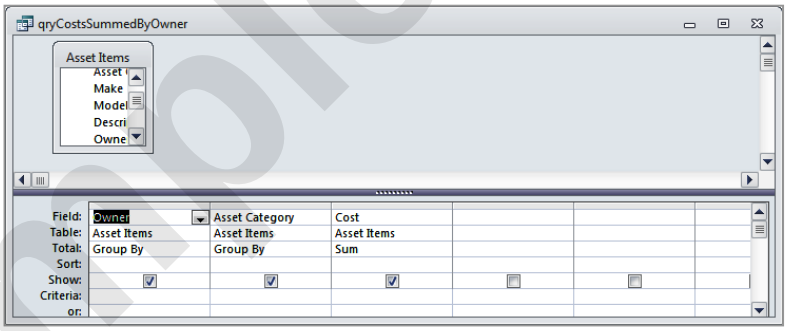
Same File

Continue using the previous file with this exercise, or open the file A Sample Database.accdb...

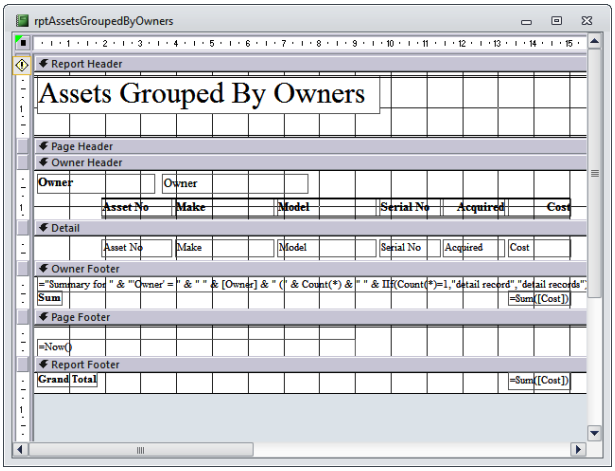
1. In the ***Navigation pane***, double click on ***qryCostsSummedByOwner*** to run the query and display the data parsed through it
2. On the ***Home*** tab of the ***Ribbon***, click on the top half of ***View*** to display the design of the query
3. Click on ***Close*** to close the query
4. Double-click on ***rptAssetsGroupedByOwners*** to run the report and display it in preview mode
5. Click on ***Design View*** in the bottom right of the window, to display the design structure of the report
6. Click on ***Close*** to close the report



1



2



5

Sample

For Your Reference…

To ***work*** with ***other database objects***:

1. Double-click on the object name in the ***Navigation pane*** to run the object
2. Click on ***View*** on the ***Ribbon*** to see the design of the object

Handy to Know…

- For forms and reports there is also a ***Layout*** view. In ***Design*** view you see the name of the controls used to display the data. You don't actually see where the data ends up in ***Design*** view. In ***Layout*** view you see the data but can still make changes to the actual layout of the form or report.

CLOSING A DATABASE FILE

Closing a database file is a little different to closing files in most other applications. In Access 2010 the data in a database file is saved as it is being entered, while changes to structures and designs are saved when the objects are closed. You will never therefore be prompted to save a database file because all of this has already been done automatically.

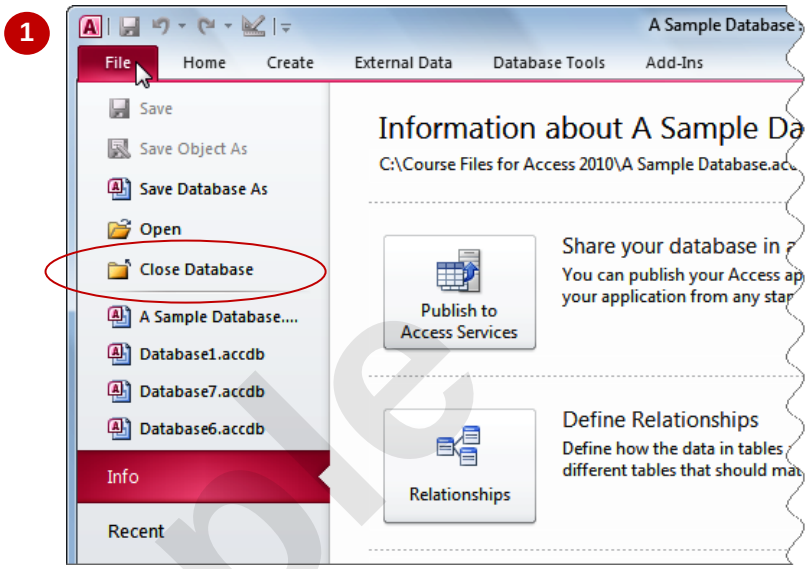
Try This Yourself:

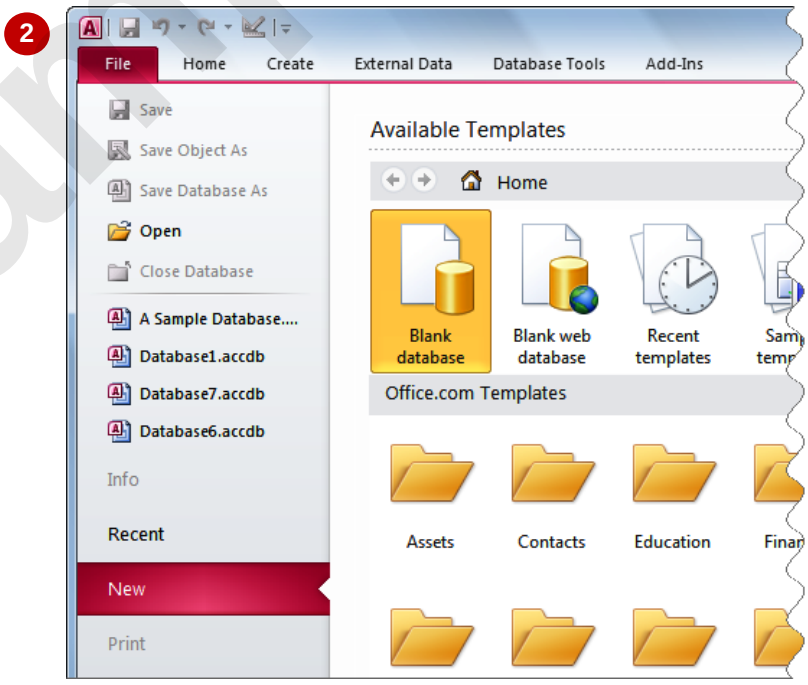
Same File

Continue using the previous file with this exercise, or open the file A Sample Database.accdb...

1. Click on the ***File*** tab of the ***Ribbon*** to display the ***Backstage View***
2. Click on **Close Database** to close the database and return to the ***New*** tab of ***Backstage View***

   The New tab has been selected because you closed the database. Only one database at a time can be opened in Access and Access 2010 will always display the New tab of Backstage View if a database is not currently open





Sample

For Your Reference…

To ***close*** a ***database***:

1. Click on the ***File*** tab of the ***Ribbon***
2. Click on **Close Database**

Handy to Know…

- The only time you'll be asked to save anything in Access 2010 when closing a database, is if there is a ***Design*** view window open and unsaved changes have been made to the design prior to closing.

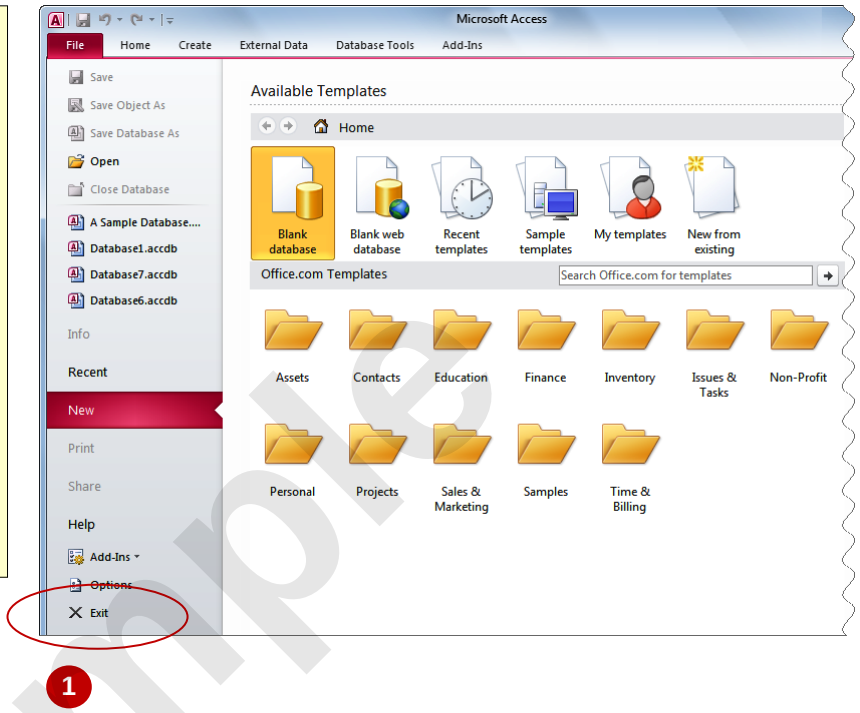
EXITING FROM ACCESS 2010

You can exit from Access 2010 without the need to worry about losing unsaved data. All of the data in a database is saved as the data is entered, while changes to the design of any database objects are saved when the object is closed.

Try This Yourself:

Before starting this exercise, ensure that either an Access database is open, or that Backstage View is displayed...

1. If ***Backstage View*** is not currently displayed, click on the ***File*** tab
2. Click on **Exit** to close Access 2010 and return to the Windows desktop



Sample

For Your Reference…

To ***exit*** from ***Access 2010***:

1. Click on the ***File*** tab of the ***Ribbon***
2. Click on **Exit**

Handy to Know…

- You can exit from Access 2010 at any point and at any stage. You don't necessarily have to be in ***Backstage View***.

NOTES:

Sample