

Selection Queries (1)

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This handout is part of a series.

Please see section 7.1 at:

www.robin-beaumont.co.uk/virtualclassroom/contents.html

1. Learning outcomes check list for the session

This chapter aims to provide you with a number of skills along with the necessary knowledge for you to achieve the learning outcomes listed below. After you have completed the chapter you should come back to these points ticking off those with which you feel happy.

Learning outcome	Tick box
Describe what an LibreOffice Base (LOB) query is	<input type="checkbox"/>
Describe the components of an LibreOffice Base (LOB) query	<input type="checkbox"/>
Be able to create a query using the Query By Example (QBE) design window	<input type="checkbox"/>
Be able to add tables to the query design window	<input type="checkbox"/>
Be able to run a query	<input type="checkbox"/>
Be able to save a query	<input type="checkbox"/>
Know how to save the results of a query to a VIEW (table)	<input type="checkbox"/>
Be able to specify criteria for number fields for one specific value and a range of values	<input type="checkbox"/>
Be able to specify criteria for text fields	<input type="checkbox"/>
Be able to explain and use wild cards	<input type="checkbox"/>
Be able to use the 'And' operator	<input type="checkbox"/>
Be able to use the 'OR' operator	<input type="checkbox"/>
Know the difference between 'OR' and 'XOR'	<input type="checkbox"/>
Be able to find or exclude blank (NULL) fields	<input type="checkbox"/>

2. Introduction

In this chapter we will begin to investigate queries. Queries are a method of examining or manipulating one or more tables to obtain useful information. For example, we might wish to examine the patient table in the consultations database for the patients that live in a particular city or who were registered before 1970. This chapter will both demonstrate, and get you to carry out, such queries.

A query consists of three components:

- The tables to query
- Query definition
- Result

These can be thought of as the input, process and output. The input is simply one or more fields from one or more tables in a database. The process is interrogating the table, using a special facility called QBE (or its big brother SQL), and the output is the result. A result can be either:

- the creation of a temporary dataset, Select queries
- the creation of a results table or some type of
- updating to the current table.

This session will look specifically at **Select** queries which result in a new temporary set of records being produced based upon some such criteria defined in the QBE facility.

Exercise 1. Opening the Database

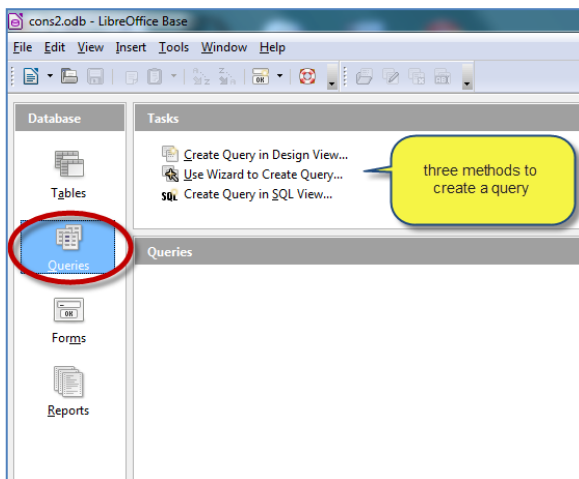
Open the cons2 database now.

This makes use of the cons2 database which contains the following records in the **Doctor** table.

Consultations database, Doctor table.

Doc id	doc first name	doc Surname	Gender	Date reg	Addr title	Addr st name	Addr st no	city	postcodeA	postcodeB	Phone No
1	john	SMITH	2	01/04/67	The old surgery	12 station rd	Walkergate	Newcastle	Ne23	4rr	0191 009282
2	steve	Jarvis	2	01/05/70	Morpeth HC	High st	Morpeth		Mo2	1ts	0127 485739
3	Mary	Goodall	1	27/11/67	Seeham HC	The harbour	Seaham		Se1	4jp	0191 345867
4	Fiona	black	1	30/01/76	Cragside HC	The East Wing	Cragside castle		Cr3	1ws	0146 389431
5	Anna	Scriabin	0	25/03/61	Uniiversity MC	Newcastle Univeristy		Newcastle	Ne1	1aa	0191 445776
23	mark	Goodall	2	27/02/55	Seaham HC	The harbour	Seaham		Se1	4jp	0191 345867

3. Ways of Creating queries



As with most things in LibreOffice Base (LOB) you can create queries several different ways. LibreOffice Base (LOB) provides three methods of creating queries from design Wizards to the grow up way of writing SQL, which is the programming language underneath QBE. in this chapter we will use the half way house using the QBE query design window.

Exercise 2. Opening the Query design window

Select the Queries option on the far left and then select the 'Create Query in Design View' option to open up the Query design window

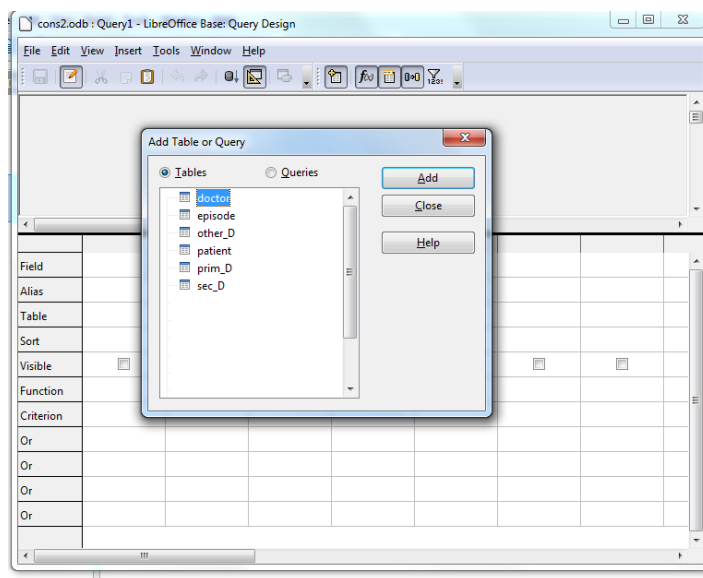
4. The Query design Window

You will now be presented with the query design window, this is one of the most complex in LibreOffice Base (LOB) and what makes it worse, is the fact that it is partially obscured by the **Add table or Query dialogue box**, asking you which tables you would like to query in the present database.

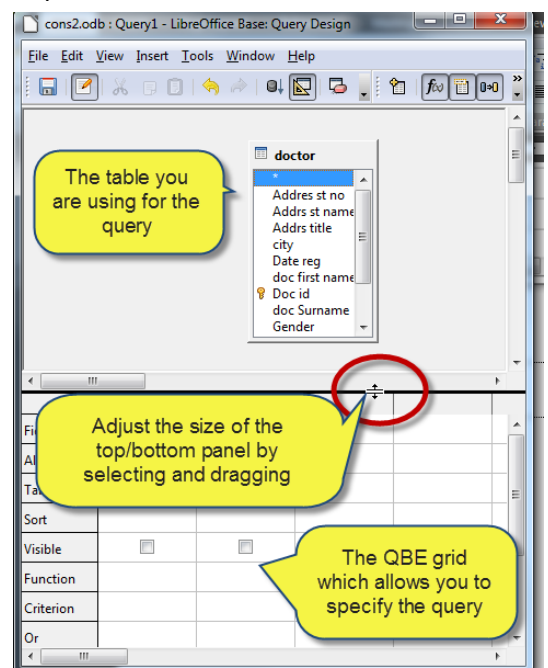
In the following sections, we will carry out a number of queries on the 'doctor' table. As a preliminary step the table needs to be added to the query design window.

Exercise 3. Adding the Doctor table to the Query design window

Select the doctor table in the Add Table or Query dialog box and then click the Add button - You can then click the Close button to close the dialog box.



The query window consists of two parts. The top part shows graphically what tables you are using to develop the query. The bottom part is a graphical query tool using a method known as **QBE** (Query By Example) this is also used in other databases so learning QBE in LibreOffice Base (LOB) means you can transfer to another databases relatively easily.



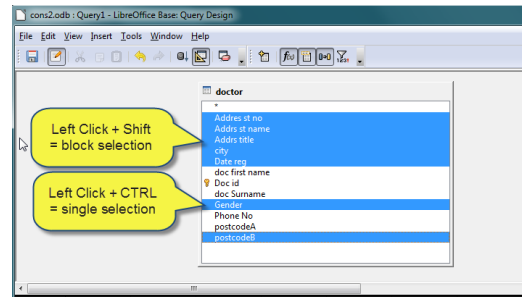
Rather than describing all the features of the query design window, of which there are many, we will carry out a few very simple examples using firstly the doctor and then the patient tables.

4.1 Adding fields to the Query

The first thing to do is to select the fields you want to use to develop the query and also which ones you wish to see in the result. This is achieved by double clicking the necessary fields from the top part of the window which moves them to the grid in the bottom part.

Techie note: In Access you can drag individual fields by selecting each individually or, alternatively choosing the asterisk at the top of the field list and dragging that to choose all the fields. You can also select either block of fields or individual ones by using the left mouse click + CTRL or shift.

At the present time in Base you can only add individual fields to the query grid by double left mouse clicking on each



5. Specifying a query

The most important aspect of queries is actually specifying what they should do. You will be specifying what they do using a special query language called QBE (Query By Example). This is often referred to as query building.

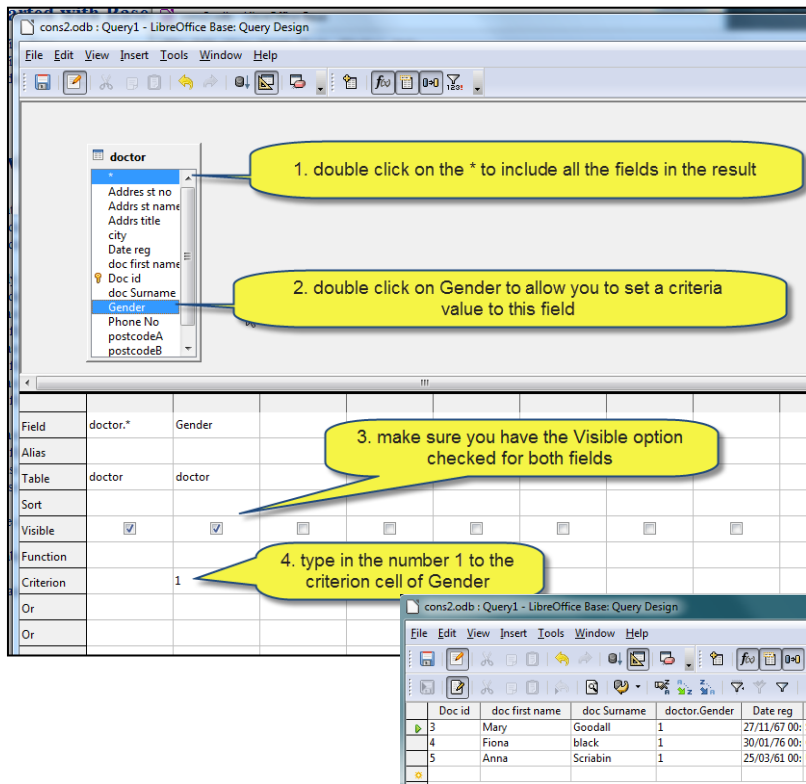
The next section will demonstrate how to build select type queries. These 'select' queries, allow you to select a sub set of records from one or more tables based on certain criteria which is hardly surprising given their name! The criteria you enter into the various cells are often called **expressions** or **statements**. The doctor table will be used for all the examples and initial exercises.

6. Specifying criteria for number fields

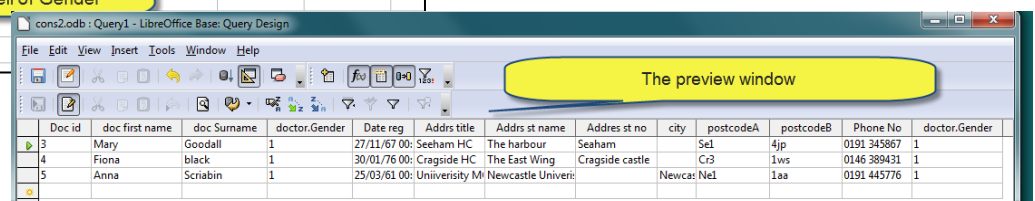
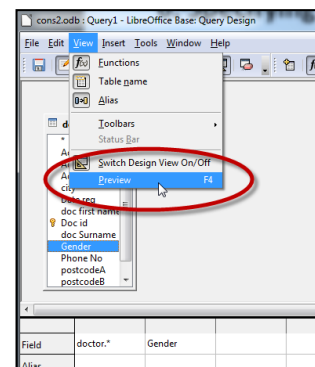
6.1 A specific value - Find me all the female GPs

Example: To Select all the female doctors form the doctor table. i.e. Gender =1

We would set the query grid up in the following manner. The doctors the following coding for gender; 1=female;2=male. Therefore, all we need to do is place a 1 in the criteria box of the gender field in the QBE grid:



To run the query and see our results we need to either press the F4 button or select the menu option View -> Preview



Exercise 4. Finding all the female Doctors

Carry out the step described previously to specify, run and view the Query .

6.2 A range of values

A large number of queries search for a range of values rather than a specific one. This is achieved by using various numeric operators such as (<,>, >=, <=, <>, between). For example:

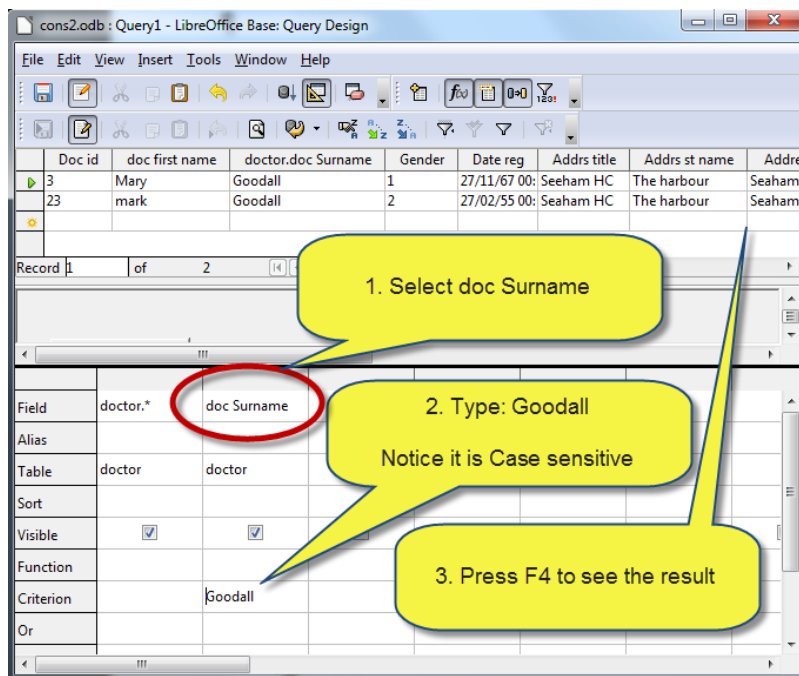
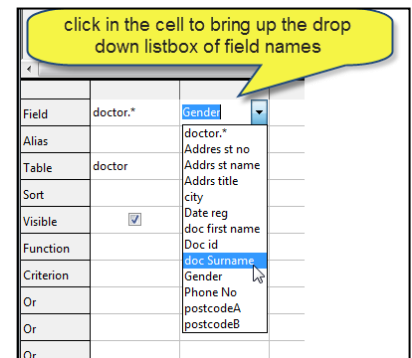
Expression	Meaning
>234	Select all records with a value greater than 234
<150	Select all records with a value less than 150
Between 1 AND 3	Select all records between 1 and 3 inclusive
<>1	Select all records not equal to 1

7. Specifying criteria for text fields

7.1 A specific value

Example: To select all the doctors with the surname Goodall from the doctor table

Looking at the records in the Doctor table there are two with the surname Goodall. To search for all the doctors with that name we enter Goodall in the criteria box of the surname field in the QBE grid. Rather than creating another query we can just edit the one we already have by selecting the Gender cell in the QBE grid and the selecting the doctor surname field name instead.



Case sensitivity:

LibreOffice Base (LOB) is **case sensitive**. This means that if you run a query searching for GOODALL and then another one searching for GoodALL you would end up with different results.

There is an easy way of ignoring the case in a text field search but involves the development of an expression, something we will look at in the next chapter.

Notice that LOB adds quote marks around Goodall when it runs the query, if you wish to specify any additional criteria (see the next section) you need to add these quotes yourself.

Exercise 5. Finding all the Doctors with a specific name

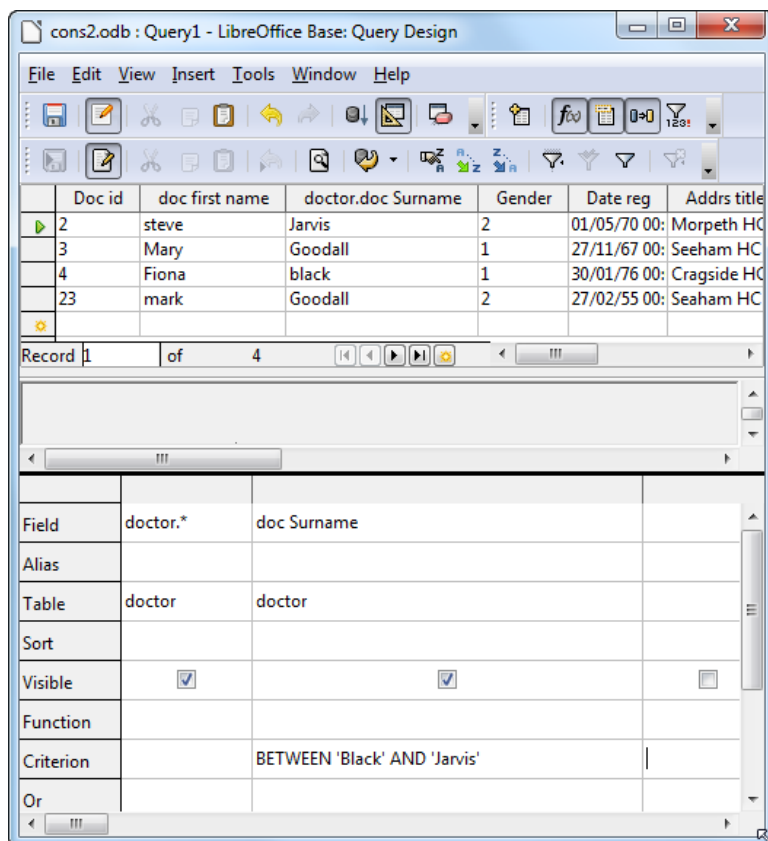
Carry out the step described previously to specify, run and view the Query. **Remember to clear any other criteria you may have specified from previous queries.**

7.2 A range of values

As with numbers you can search strings using various numeric operators such as (<,>, >=, <=, <>, between). For example:

Expression	Meaning
> 'beaumont'	Select all records from beaumont to the end of the alphabet
< 'Xandua'	Select all records from Xandua to the beginning of the alphabet
BETWEEN 'Black' AND 'jarvis'	Select all records in the alphabet between black and jarvis inclusive
<> 'Beaumont'	Select all records not equal to Beaumont

Example: To select all the doctors records with a surname between Black and Jarvis from the doctor table would require the QBE grid to be set in the following manner:



Exercise 6. Finding all the Doctors between Black and Jarvis

Carry out the step described previously to specify, run and view the Query. **Remember to clear any other criteria you may have specified from previous queries.**

7.3 Wild cards

A wild card is a special character you can use in an expression to search for certain patterns. A question mark (?) stands for a single character and the percent sign (%) stands for any number of characters in the same position.

If you enter this expression	meaning	And finds these values
LIKE 'SM?TH'	? = Single character	SMITH, SMYTH
LIKE 'G% %I'	% = Multiple characters (any length)	Goodall, Ghemringgall, 'God help us all'
LIKE '**a'	** = any number of prior characters	Anna, Anita, Fiona
LIKE '**n**'	**n** = n occurs anywhere, can be the first middle or last letter	Condiments, Confections, nuts, bun
LIKE '?a%'	?a% = any word where the second letter is a	Mary, mark
30-01-76	Within a data field	All dates on the 30th jan 1976

Techie note: According to the hsqldb guide (the database that runs Base) "The LIKE keyword uses '%' to match any (including 0) number of characters, and '_' to match exactly one character. To search for '%' or '_' itself an escape character must also be specified using the ESCAPE clause. For example, if the backslash is the escaping character, '\%' and '_' can be used to find the '%' and '_' characters themselves. For example, SELECT LIKE '_%' ESCAPE '\' will find the strings beginning with an underscore" This does not seem to be the case when running the above examples.

8. Specifying criteria for date fields

8.1 A specific value

To retrieve all records with a specific date you type in the date you are looking for, Base sometimes adds the hash symbol at the start and end of the date i.e. #01-09-2010# but sometimes you need to add it to make the query work.

8.2 A range of values

To retrieve a range of dates you can use the between function i.e. BETWEEN 01-01-86 AND 01-01-96. It is also important to note that if you attempt to add dates with wild cards such as */12/78 you get an error message. The start and end date must be fully defined, however this is not the case in Access where you can use the asterisk. In Base this works:

BETWEEN #01/01/1967# AND #30/04/1976#

8.3 A range of values before or after today

Typing the expression NOW() in the required field returns records for the current date. This expression can be adapted to search for ranges such as:

Expression	Meaning
BETWEEN #01/01/1970# AND NOW()	Records between 01/01/1970 and now

9. Multiple Criteria

The above example uses two words (**between** and **and**) to specify the query. Besides these words QBE recognises several others (e.g. IS EMPTY, OR, LIKE) which allow the specification of very complex queries. We will now investigate the use of the AND.

Techie note: When combining (concatenating) string fields in LOB the standard SQL operator || rather than the non-standard + operator should be used.

9.1 And

This word is used when looking for multiple criteria which only returns records when all the criteria are found.

9.1.1 Several fields

Example: To retrieve all the records where the Doctor Surname=Goodall AND gender = 1 we setup the QBE grid as shown opposite.

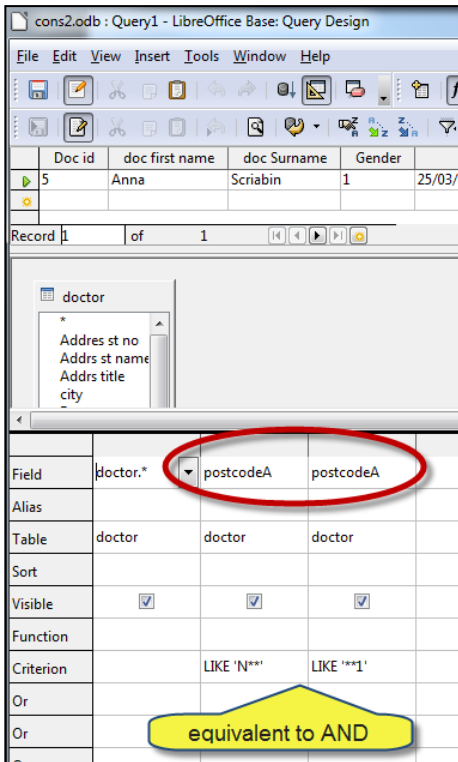
The screenshot shows the 'Query Design' view in LibreOffice Base. The 'doctor' table is selected in the left pane. The QBE grid is displayed with the following data:

Field	doctor.*	doc Surname	Gender		
Alias					
Table	doctor	doctor	doctor		
Sort					
Visible	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function					
Criterion		'Goodall'	1		
Or					
Or					
Or					
Or					

Exercise 7. Finding all the Doctors who are Female AND have the surname = Goodall

Carry out the steps described above to specify, run and view the Query. **Remember to clear any other criteria you may have specified from previous queries**

9.1.2 One field

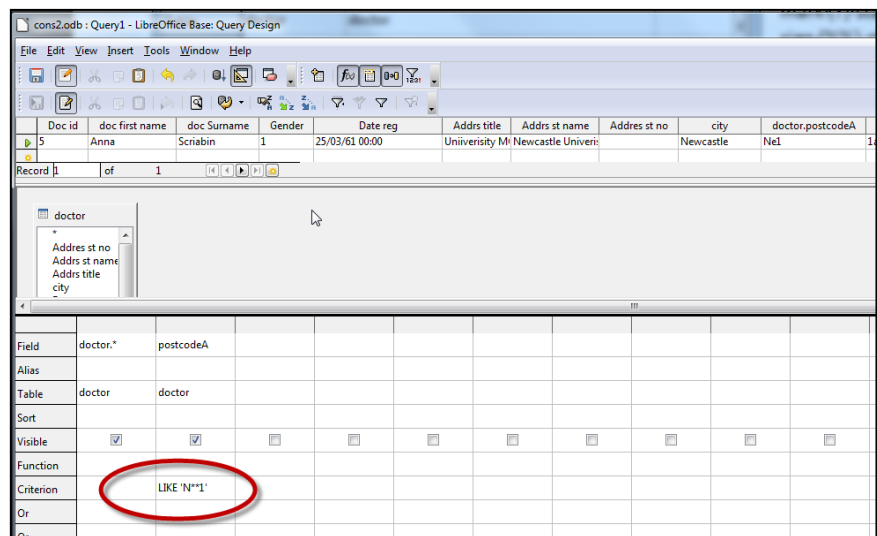


The above situation can appear rather confusing. Consider the criteria "Goodall And black" for the doctor surname field. At first it might appear that three records should be retrieved. However, if the query is run no records are returned. This is because there are no surname fields in which both the word goodall and smith occur together. If the 'And' had been replaced with an 'Or' the required result would have been obtained.

Example: If you want to obtain all records with a PostcodeA beginning with an 'N' and ending with a '1'

One method is to enter the expression, LIKE 'N**' AND LIKE '**1' in the criteria cell of the 'postcodeA' column. However, in LOB you cannot enter the word AND in the cell instead you just repeat the field column again in the QBE grid (see opposite), this is in contrast to Access where you would enter the 'and' in the cell.

Interestingly you could have obtained the same result using a simpler expression in this instance (see below).



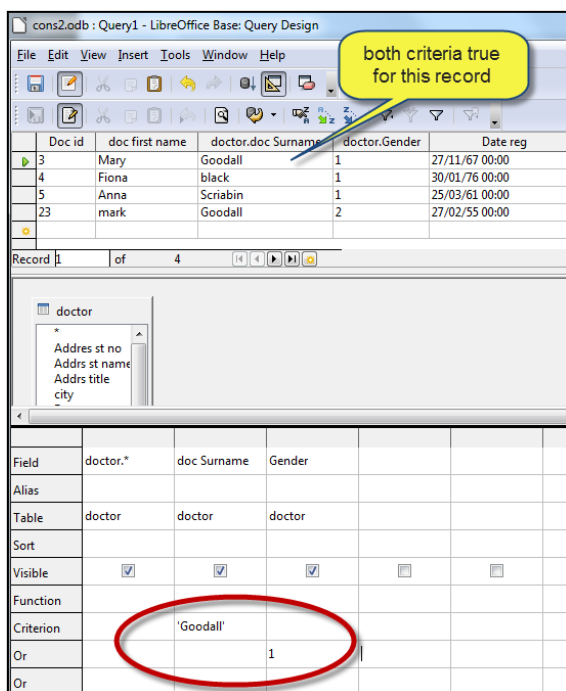
Exercise 8. Finding all the post codes which start with a N and end in 1

Carry out the steps described above to specify, run and view the Query.

Remember to clear any other criteria you may have specified from previous queries.

9.2 Or (inclusive)

This word is used when looking for multiple criteria which returns records when ONE OR more of the criteria are found. This is often called an inclusive OR because it includes records that would be chosen when all the expressions are true.



9.2.1 Several fields

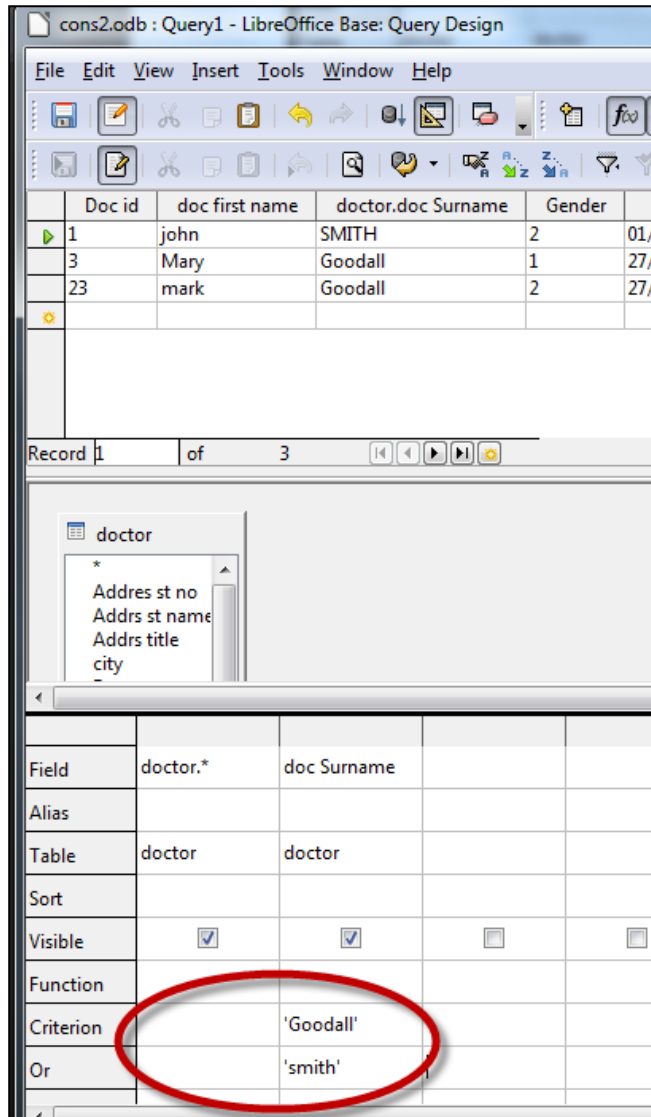
Example: To select all the records with the doctors surname = Goodall OR / AND are females requires the QBE grid to be setup in the manner opposite:

Exercise 9. Finding all the Doctors named Goodall OR/AND are female (gender=1)

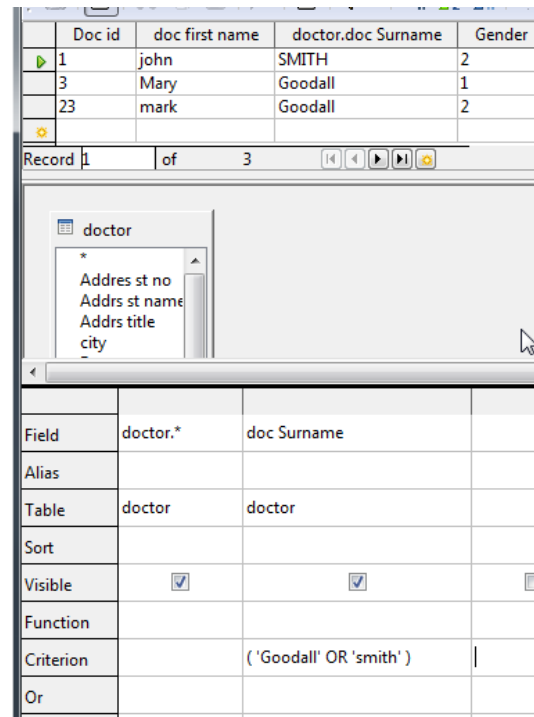
Carry out the steps described above to specify, run and view the Query. **Remember to clear any other criteria you may have specified from previous queries.**

9.2.2 One Field

Example: To find all those doctors with the surname Goodall OR SMITH:



In contrast to the situation of not being able to type AND in the cell you can type OR in the cell to obtain the same result or use the OR row:



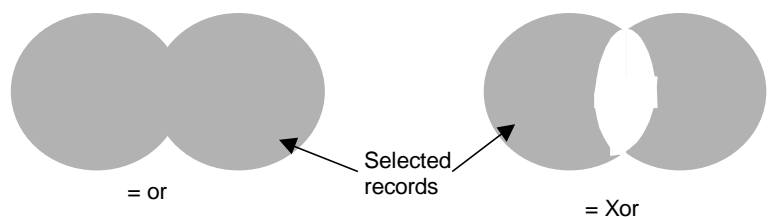
Exercise 10. Finding all the Doctors named Goodall OR are SMITH

Carry out the steps described above to specify, run and view the Query. **Remember to clear any other criteria you may have specified from previous queries**

9.2.3 Xor (Exclusive or)

You can also use the **Xor** term for an exclusive 'OR', that is one that leaves out the records that evaluate true for all criteria. This requires you to type the complete expression in one cell. To do this you may need to reference a field in another column achieved by placing the field name in square brackets. You can think of the two different types of 'or' as two different Venn diagrams

In this course, you are not expected to be able to produce 'xor' expressions but only to be aware of the difference. In the real world it is particularly important to be aware of the ambiguity in the 'or' term when requesting data from other people.

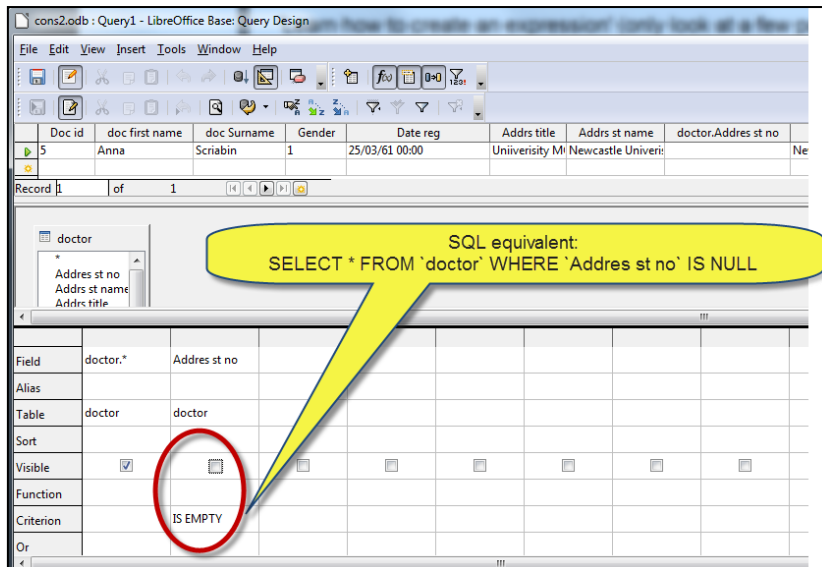


Optional exercise for insomniacs: Consider how you might go about extracting records which are chosen if the first expression is true or alternatively the second expression but not if both were true (an exclusive OR). I.e. the previous example would have left out the Mary Goodall record. [the answer is at end of the handout]

10. Blank records - looking for, or excluding from a query

This is frequently done to check to see how reliable the data is. It is achieved by adding the word 'null' to the required field.

Example: To select all records in which the address street number field is empty we type in the criteria cell for the 'Address st no' column the expression 'IS EMPTY'.



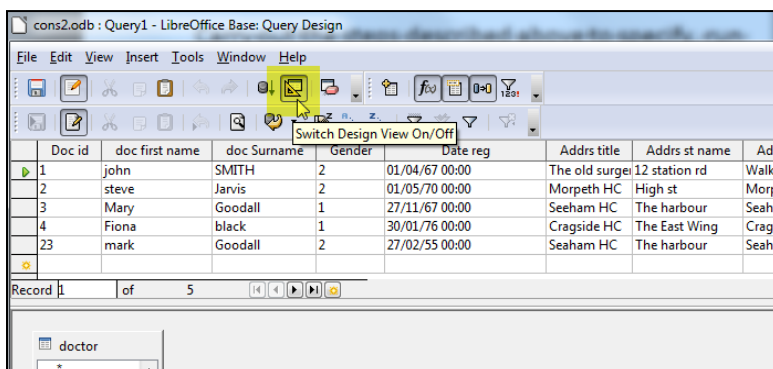
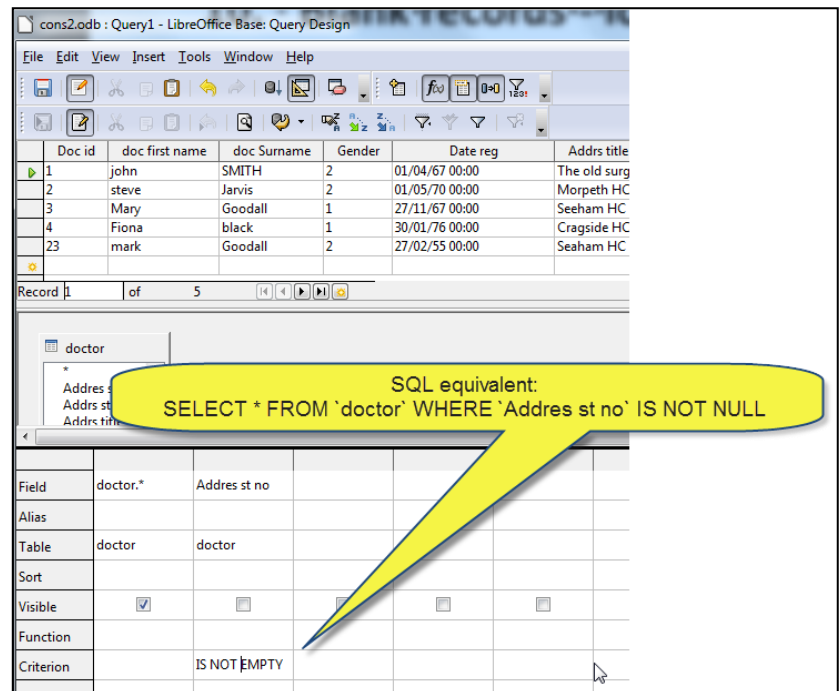
Typing the expression 'IS EMPTY' produces one record when you press F4. You can also type in 'IS NOT EMPTY' to retrieve all the non empty records for the address st no field.

Again this is different from Access where you would type NULL and NOT NULL, interestingly the code that the computer produces underneath the QBE grid (called SQL) does use the word NULL. Incidentally you will have noticed that a similar thing occurs when you type the percent (%) when it is converted to * in the QBE grid.

Also notice that I have not clicked the Visible box for the Address st no. field I'm just using it to form the query as I have already included the field in the output by selecting the doctor * field in the previous column.

Exercise 11. Finding all the records with an empty address st no. field

Carry out the steps described above to specify, run and view the Query. **Remember to clear any other criteria you may have specified from previous queries**

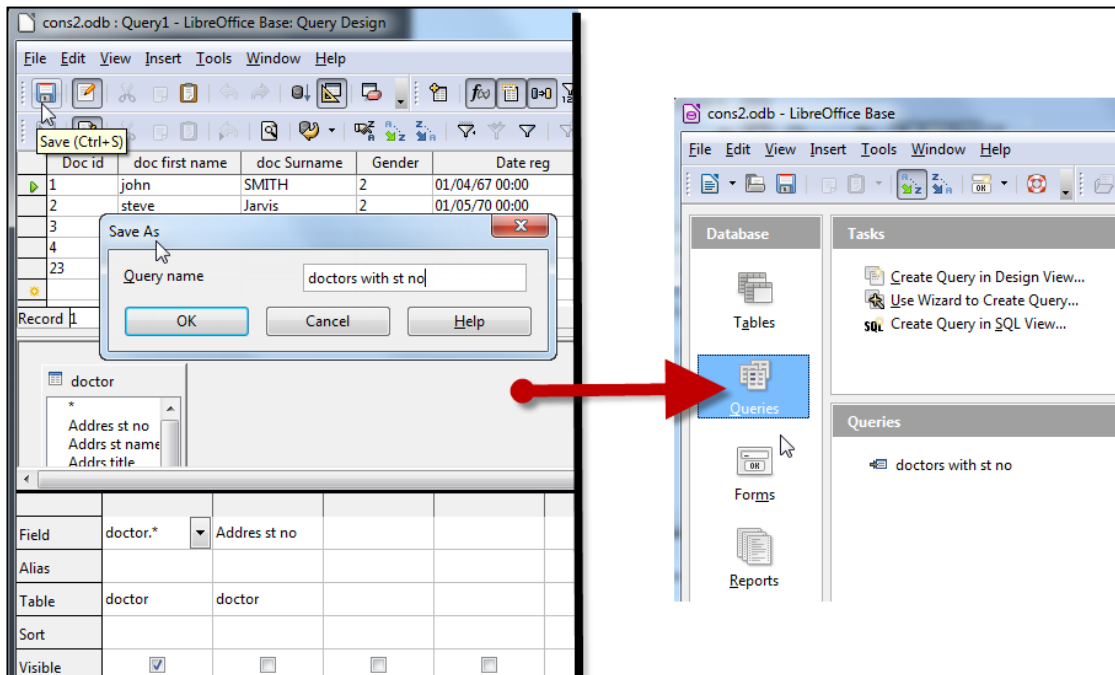


11. How to see the SQL

You can easily see the underlying SQL code by clicking on the 'Switch design view' icon shown below.

12. Saving a query

As mentioned above a query is really a definition and a result. Therefore, LibreOffice Base (LOB) offers you the opportunity to save either the query or its results. To save the query definition either click on the save icon when in the design window or use the shortcut key combination Ctrl+s. You will then be asked to provide a name for the query, after which you can then select it from the list of queries in the database.



12.1 Saving the results of a query

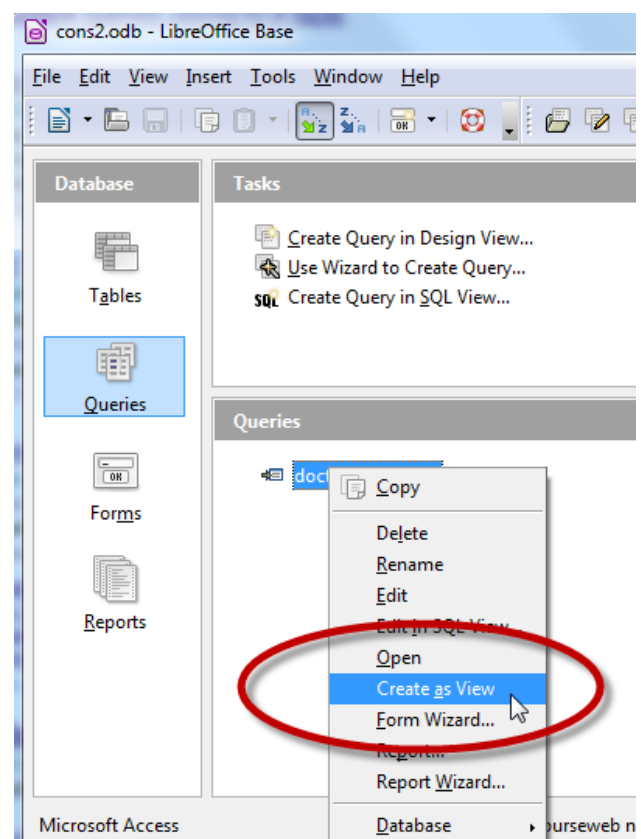
In the database window:

Choose the Queries icon and select the Queries category. Then click on the query you are interested in and then RIGHT mouse click on it to bring up a popup menu to select the **Create as view** option, you will then be asked to provide a name for this 'view' which you can think of as a table.

Once you have given it a name it will appear in the list of tables.

13. Clearing the QBE grid and removing columns

Simply select the table or the top of the relevant column(s) in the QBE grid and press the Delete Key.



14. Review exercises

Besides a set of doctor records the con2 database contains a set of records in the **patient** table.

patient id	Title	first name	Surname	Doc id	DOB	Gender	Date on list	No children	Addr title	Addr st name	Address no	city	postcodeA	postcodeB
1	mr	john	smith	23	19/02/45	2	01/02/85	3	Cherry bud	Orchard Lane	45	newcastle	NE5	2pn
2	miss	shella	jones	23	02/01/55	1	01/02/70		Cathedral view	Cathedral Row	11	durham	Du2	1b
3	prof	richard	farmer	23	06/12/55	2	01/02/89	2		Tosson tce	134	newcastle	Ne2	3no
4	mr	John	Hewitt	1	23/01/71	2	01/02/96	1		Dovetail Gardens	9	Stanley	St1	5th
5	miss	shirley	anderson	1	15/01/60	1	01/02/93	3		Newton Rd	23	newcastle	NE2	3jl

Please complete the following exercises using the **Patient** table, in the Cons2 database. You should check your results obtained in Base with the actual table above. You can find the results in the final section of this chapter.

1. List all males patients that are on the list
2. List all patients of doctor Smith (ID = 1)
3. List all patients that live in a house with a house number less than, but not including, 20. Note you may need to change the field type to a number of some variety if you get the wrong answer first?
4. List all patients with a first name of john
5. List all patients with a surname that begins with the letter h
6. List all patients that have a surname that begins with the letter h or prior to that in the alphabet
7. List all patients that have a surname that begins with the letter h to t, inclusive, in the alphabet
8. List all patients that have the first name John or richard (Notice the case)
9. List all patients that jointed the practice list in 1970
10. List all the patients that jointed the practice list between 1985 and 1995 inclusive
11. List all the patients that have more than two children (do not include those with only two) and also live in Newcastle
12. List all the patients for which there is no record of how many children they have

15. Summary

In this chapter we have started to look at QBE, one of the methods LibreOffice Base (LOB) provides for querying databases. We concentrated on one particular type of query, the **select** type and went through the process of creating, specifying and saving the definitions of such queries. Although this is only the very tip of querying databases, these very simple select queries can provide some very useful data. In the next chapter we will look at creating summary fields, additional derived fields and adjusting the layout of the results, this will, amongst other things, allow us to ignore the case problem when searching text fields.

16. Check what you have learnt

Now go back to the beginning of the material for the session and read through the 'Learning outcomes check list' for the session. How many can you tick? If you are not sure about any of them work through the relevant practical exercises again. If you still have problems please contact me.

17. web links

Plan b videos: <http://plan-b-for-openoffice.org/base/index>

18. Answers

18.1 How to implement an exclusive or (xor)

This is rather a tricky problem and there are many ways to solve it.

	Doc id	doc first name	doc Surname	Gender
	4	Fiona	black	1
	5	Anna	Scriabin	1
	23	mark	Goodall	2

Record 1	of 3			
----------	------	--	--	--

doctor			
* Doc id doc first name doc Surname			

Field	doctor.*	doc Surname	Gender
Alias			
Table	doctor	doctor	doctor
Sort			
Visible	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Function			
Criterion		'Goodall'	<> 1
Or		<> 'Goodall'	1

One of the easiest ways in QBE is to put the negatives in the diagonal cells. Meaning find all the doctors with the surname Goodall which are not females and find all the females which are not named Goodall. Comparing this with the example in section 9.2 the inclusive OR, but this time leaving out the first record where both conditions are satisfied.

For those of you who know SQL. It is interesting to note that if you approach the problem from a SQL perspective LibreOffice Base (LOB) produces the following SQL from the QBE opposite by removing the Visible property in all columns but the doctor.* column:

```
SELECT * FROM "doctor" WHERE ( "doc Surname" = 'Goodall' AND "Gender" <> 1 OR "doc Surname" <> 'Goodall' AND "Gender" = 1 )
```

In some database SQL languages you could just change the OR to a XOR (as in Access) unfortunately this is not possible in Base.

18.2 Answers to selected 'Review exercises'

Question 1

Question 2

	patient id	Title	first name	Su
▶	4	mr	John	He
	5	miss	shirley	anc
⚙				
Record 1 of 2				
<div> <div>patient</div> <div> first name Surname Doc id DOB Gender Date on list </div> </div>				
Field	patient.*	Doc id		
Alias				
Table	patient	patient		
Sort				
Visible	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Function				
Criterion		1		

Question 3

Question 4

	patient id	Title	first name	Su
▶	2	miss	shella	jones
	4	mr	John	Hewi
⚙				
Record 1 of 2				
<div> <div>patient2</div> <div> Date on list No children Adrs title Adrs st name Adrs st no city </div> </div>				
Field	patient2.*	Adrs st no		
Alias				
Table	patient2	patient2		
Sort				
Visible	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Function				
Criterion		< 20		
Or				

	patient id	Title	first name	Su
▶	1	mr	john	smi
⚙				
Record 1 of 1				
<div> <div>patient</div> <div> first name Surname Doc id DOB Gender </div> </div>				
Field	patient.*	first name		
Alias				
Table	patient	patient		
Sort				
Visible	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Function				
Criterion		'john'		

Question 5

	patient id	Title	first name	Surr
▶	4	mr	John	Hewitt
⚙				
Record	1	of	1	
<div> <div>patient</div> <div> first name Surname Doc id DOB Gender </div> </div>				
Field	patient.*	Surname		
Alias				
Table	patient	patient		
Sort				
Visible	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Function				
Criterion		LIKE 'H**'		

Question 6

	patient id	Title	first name	Su
▶	3	prof	richard	farm
	4	mr	John	Hew
	5	miss	shirley	ande
⚙				
Record	1	of	3	
<div> <div>patient</div> <div> first name Surname Doc id DOB Gender </div> </div>				
Field	patient.*	Surname		
Alias				
Table	patient	patient		
Sort				
Visible	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
Function				
Criterion		LIKE 'H**'		
Or		< 'H**'		

Question 7

	patient id	Title	first name	Surname	Doc id
▶	4	mr	John	Hewitt	1
	2	miss	shella	jones	23
	1	mr	john	smith	23
⚙					
Record	1	of	3		
<div> <div>patient</div> <div> * patient id Title first name Surname </div> </div>					
Field	patient.*	Surname			
Alias					
Table	patient	patient			
Sort		ascending			
Visible	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Function					
Criterion		BETWEEN 'h**' AND 't**'			

Question 8

	patient id	Title	first name	Surname	Doc id
▶	3	prof	richard	farmer	23
	4	mr	John	Hewitt	1
⚙					
Record	1	of	2		
<div> <div>patient</div> <div> * patient id Title first name Surname </div> </div>					
Field	patient.*	first name			
Alias					
Table	patient	patient			
Sort					
Visible	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Function					
Criterion		LIKE 'John'			
Or		LIKE 'richard'			

Question 9

	patient id	Title	first name	Surname	Doc id	DOB	
	2	miss	shella	jones	23	02/01/55	1
Record 1 of 1							
<div> <div>patient</div> <div> <div>patient id</div> <div>Title</div> <div>first name</div> <div>Surname</div> </div> </div>							
Field	patient.*	Date on list					
Alias							
Table	patient	patient					
Sort							
Visible	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
Function							
Criterion		BETWEEN #01/01/1970# AND #31/12/1970#					

Question 10

	patient id	Title	first name	Surname	Doc id	DOB	Gender
	1	mr	john	smith	23	19/02/45	2
	3	prof	richard	farmer	23	06/12/55	2
	5	miss	shirley	anderson	1	15/01/60	1
Record 1 of 3							
<div> <div>patient</div> <div> <div>patient id</div> <div>Title</div> <div>first name</div> <div>Surname</div> </div> </div>							
Field	patient.*	Date on list					
Alias							
Table	patient	patient					
Sort							
Visible	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
Function							
Criterion		BETWEEN #01/01/1980# AND #30/12/1995#					

Question 11

	patient id	Title	first name	Surname	Doc id	DOB	Gender	Date on list
	1	mr	john	smith	23	19/02/45	2	01/02/85 00
	5	miss	shirley	anderson	1	15/01/60	1	01/02/93 00
Record 2 of 2								
<div> <div>patient</div> <div> <div>patient id</div> <div>Title</div> <div>first name</div> <div>Surname</div> </div> </div>								
Field	patient.*	No children						city
Alias								
Table	patient	patient						patient
Sort								
Visible	<input checked="" type="checkbox"/>	<input type="checkbox"/>						<input checked="" type="checkbox"/>
Function								
Criterion		> 2						'newcastle'

Question 12

	patient id	Title	first name	Surname	Doc id	DOB	Ge
	2	miss	shella	jones	23	02/01/55	1
Record 1 of 1							
<div> <div>patient</div> <div> <div>patient id</div> <div>Title</div> <div>first name</div> <div>Surname</div> </div> </div>							
Field	patient.*	No children					
Alias							
Table	patient	patient					
Sort							
Visible	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
Function							
Criterion		IS EMPTY					