

Using Computers

Database

Task 6

Working with a large database: finding items, sorting and querying

Copy the database task 6 onto your course disk. This database will show you how to powerful Access can be. All your information is stored in a table and becomes harder and harder to analyse as you add more records. There will be occasions when you have to find specific information. To do this you write a query to 'interrogate' the information stored in the table. This task which demonstrate using find, sort and querying using the Form database.

TASK 6

Use the FIND, SORT and FILTER BY FORM functions to answer the following questions. Produce a Microsoft Word document to type your answers as a numbered list. Write each answer as a sentence i.e. Fred Bloggs is a UCATT member.

1. Where does Mark Knapp live?
2. Who's Membership number is 09863277?
3. How many people on the database live in Cottingham?
4. How many APEX members are on the database?
5. What department does Andrew Adams work in, what union is he in, and what is his membership number?
6. When did Paul Greenwood join MSF?
7. Is Ruth Burgin a union member?
8. How many people pay their union subscriptions by 'Check Off'?
9. Who lives at 15 Plantation Drive, Ferriby?
10. How many people called 'Jones' are on the database?
11. How many retired MSF members are there?
12. How many people work in Reprographics department that are not members of APEX? What other unions have members in that area?
13. How many union members pay £8.00 or more subscription?
14. What is the combined membership of MSF, AEEU and APEX?
15. Who is the oldest person on the database?
16. Who is the Youngest?
17. Which union boasts the person with the longest membership?
18. Who is the newest recruit and which union did the person join?

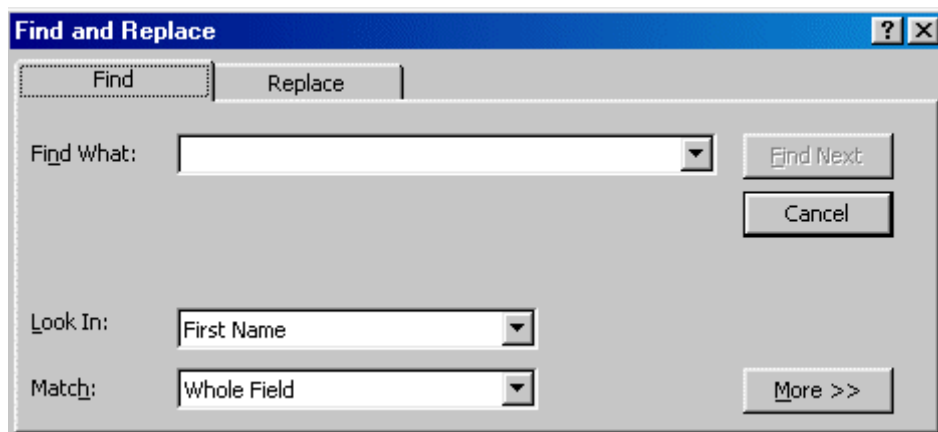
Methodology Task 6

Performing simple searches using Edit + Find

Questions 1, 2, 5, 6, 7 & 9



Edit + Find is the simplest way to search for information within an Access database. You can access this function by clicking on the binoculars icon shown above or by using the similar icon which has been provided on this database form. This is the window which is displayed:-



This function can only search for information for one thing at a time so, for example, if you were to search for Mr. Fred Bloggs, only the Bloggs part of the name could be used in the 'find what' field. This is fine for fields such as membership number where the information is unique but may cause problems if searching for a name like Brown, when there may be several on the database.

Handling 'How Many...?' questions using Records + Filter + Filter by Form

Questions 3, 4, 8 & 10



Records + Filter + Filter by Form can also be used to find how many occurrences of a string there are. When you select Records + Filter + Filter by Form the database form goes blank and a toolbar appears as shown below:-



To find out how many people live in Driffield, type Driffield into the 'Town' field and click on the Funnel icon in the toolbar shown above (this may appear as a window or as

part of the toolbars at the top and bottom of your screen depending upon your system settings).

Access then returns to the form view and displays only the records, which contain the string 'Drifffield'. This can be seen by the number in the bottom left hand corner. Instead of showing Record 1 of 1695, it now shows Record 1 of 13 (Filtered), indicating that 13 people live in Drifffield.



Notice how the funnel icon in the main tool bar appears to be pressed in; indicating that a filter is applied.



To remove the filter and display all of the records again just click on the funnel icon shown above. To create a new query just select Records + Filter + Filter by Form again (or use the icon to the left of the funnel shown above) and click on the red X icon in the Filter by Form toolbar shown below. This clears the filter.



Using Records + Filter + Filter by Form to ask more than one question Question 11

When it is necessary to ask Access more than one question at a time (e.g. how many MSF members work in design office) the procedure is very similar to that described above. Once you are in the Filter by Form view you can enter as many criteria as you wish e.g. MSF in the union field and Design Office in the Department field. Access will then display only the records that match both criteria.

What about negative questions?

Question 12

All the questions you have asked so far are positive questions e.g. "how many people are..." it is often necessary to ask a negative question e.g. "how many people are not...". To do this simply add the symbols <> before the item you are looking for. For example entering <>MSF in the union field would return all of the people on the database who are not members of MSF.



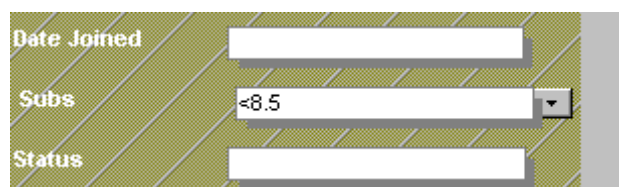
Filters using mathematical values

Questions 13

When a database contains numeric fields such as the subscription field in data base 2 it is possible to filter by comparing the value in the field to a set amount e.g. to find out members paying less than £8.50 subscriptions. These operations use standard mathematical notation that you may or may not be familiar with. The common ones are shown below.

=	Is equal to
<>	Is not equal to
<	Is less than
>	Is greater than
<=	Is less than or equal to
>=	Is greater than or equal to

Don't panic if this looks complicated, just refer back to this page when you need to use this type of filtering. So, to find out how many members pay less than £8.50 subscription you would enter <8.50 into the filter (notice how you do not need the £ sign)

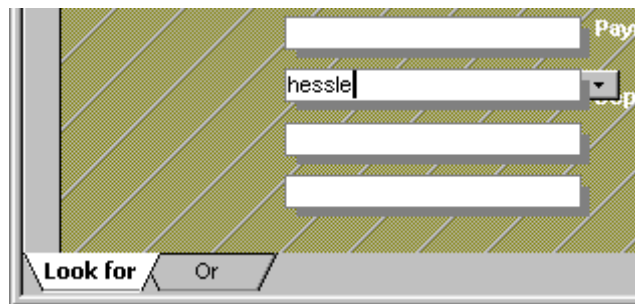


Filters using 'OR' relationships

Questions 14

In the earlier examples using more than one criteria you asked Access to find records which matched both of the conditions; this is known as a LOGICAL AND relationship. For example "how many people are AEEU members AND work in machine shop". You can also create a filter which asks for either criteria rather than both, this is a LOGICAL OR relationship, for example "how many people live in either Hessle OR Beverley"

To do this create a new filter and enter your first criteria e.g. Hessle in the town field, then click on the OR tab at the bottom left of the form, filter clears and you can enter the second option e.g. Beverley. You can add as many OR options as you wish. Easy!



Sorting records in Access

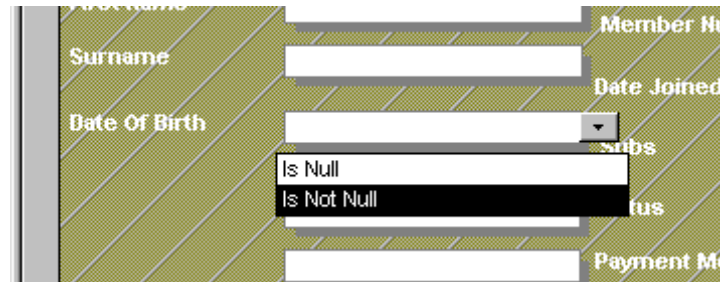
Questions 15, 16, 17 & 18



The ability of a PC base to sort records very quickly is one of its most useful features. Access uses the functions Records + Sort + Sort Ascending / Sort Descending (the icons shown above). You can sort by any field shown on the database form, just click on the field you want and click either the sort ascending or sort descending as you require.

Where has it gone?!

One problem with sorting is that all records that do not have a value in them come first in the sort. In this database there are around 500 entries that do not have the Date of Birth field filled in. Access can deal with this by using our old friend Records + Filter + Filter by Form. Create a new filter and then click on the field you wish to sort by. Now click on the arrow to the right of the box and select "Is Not Null".

A screenshot of a database form with a green and white striped background. The form has several input fields: 'Surname', 'Date Of Birth', and 'Payment Me'. To the right of these fields are labels for 'Member Nu', 'Date Joined', and 'Subs'. A dropdown menu is open over the 'Date Of Birth' field, showing two options: 'Is Null' and 'Is Not Null'. The 'Is Not Null' option is highlighted in black.

When you apply this filter all records without an entry in that field will be removed allowing you to sort easily.

Tip: Use a Wild card *

What is a wild card?

When a wild card * is used within a query it stands for any number and type of character e.g. If you were unsure how to spell the name. You could enter SM*THSON or SM*SON. You can place the wild care before, after and between characters ad you can use it more than once in a single field, e.g. SM*TH*.