

## Reports

### *Aims of session:*

To enable you to:

- Design and create a simple report based on a data table
- Sort data using one or more data fields
- Create multi level reports
- Use simple functions in a report
- Devise more complex combinations of functions
- Base a report upon a query

### *Creating a Simple Report.*

Reports are used to present information in printed form. Not everyone is inclined or able to access information on-line, therefore any workable database should have a means of printing well formatted and highly tailored reports. Most RDBMS packages will allow reports to be exported into other software (Access allows a wide range of exporting options, including the option of “publishing” the report using Word).

Using a report will allow control over:

- The layout (page headers, page numbers etc.)
- Simple calculations (e.g. give a total number of children)
- The order of the records in the report
- Creating sub sections (grouping)




### *Designing the “all students” report.*

The “all students” report (Figure 3.1) lists all of the students whose details we have recorded in the table STUDREC.



Notes

**Practical Exercise:**

-  If you haven't already done so, load Access and ensure that the database window (the central "control form") is displayed on your screen
-  Click on the REPORTS tab of the database window
-  Begin to create a report by clicking on the NEW button

This will display a "New Report" dialogue box (Figure 3.2).

all students								
SREFINIT	SNAME	DOB	GENDER	RES	KIDS	HTOWN		DISTANCE
41	S	OSMAN	29-Aug-53	M	No	3	HUDDERSFIELD	14
1	TJ	OSMAN	29-Sep-53	M	No	0	MILLHOUSE GREEN	9
2	S	LANGLEY	21-Aug-57	F	No	0	HUDDERSFIELD	14
3	H	WILSON	07-Jul-62	M	Yes	1	HUDDERSFIELD	14
4	J	CARTER	21-Mar-5	F	Yes	2	BARNESLEY	3
5	A	JONES	10-Nov-4	F	Yes	2	SHEFFIELD	14
6	S	ISHMO	05-Dec-50	M	No	0	LEEDS	34
7	K	ARNOTT	01-Aug-60	F	Yes	2	SHEFFIELD	14
8	B	ARNOTT	23-May-6	F	Yes	1	LEEDS	34
9	N	GREEN	30-Sep-58	M	Yes	1	SHEFFIELD	14
10	H	JACKSON	21-Apr-41	M	Yes	0	SHEFFIELD	14
11	A	ARNOTT	23-Aug-54	M	Yes	2	BARNESLEY	3
12	N	HEY	10-Oct-55	F	No	0	SILKSTONE	1
13	K	WILSON	13-Mar-6	M	No	2	BARNESLEY	3
14	J	BROWN	29-Sep-53	F	Yes	1	BARNESLEY	3
15	A	ARNOTT	23-Aug-54	F	No	1	BARNESLEY	3
16	G	WHITE	03-Mar-6	M	Yes	3	BARNESLEY	3
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
27	B	NADIR	24-Sep-58	M	No	0	SHEFFIELD	14
28	A	OLIVER	24-Feb-58	F	Yes	1	SHEFFIELD	14
29	T	JAMISON	23-Jan-29	F	Yes	0	SILKSTONE	1
30	C	ARNOTT	03-Apr-53	F	Yes	0	HUDDERSFIELD	14

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Figure 3.1: The "all students" report



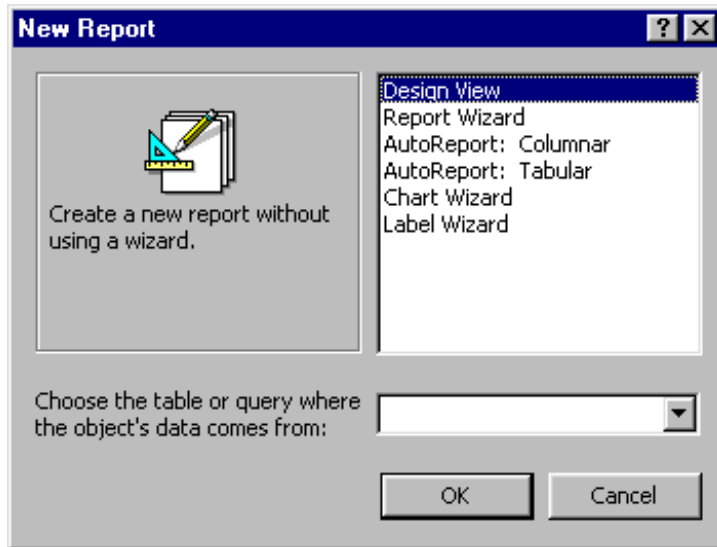


Figure 3.2: New Report Dialogue Box

We need to define where the data for the report is to be taken from, this can be either a query or a table.

- Click on the “pull down arrow” in the “chosed a table or query” text box and select the table STUDREC (see Figure 3.3).

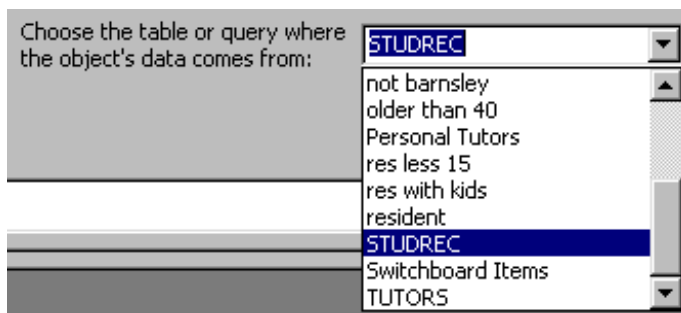


Figure 3.3 : Choose the table STUDREC

We now need to determine how the report is to be generated. The basic choices are between doing everything yourself (Design View) and allowing Access to automatically generate a report for you (everything else). As this is our first report, we'll create it the quick way by using one of the Access wizards.

- Select the “Report Wizard” and click on the OK button, this will show the first Screen of the Report Wizard (Figure 3.4).



Notes

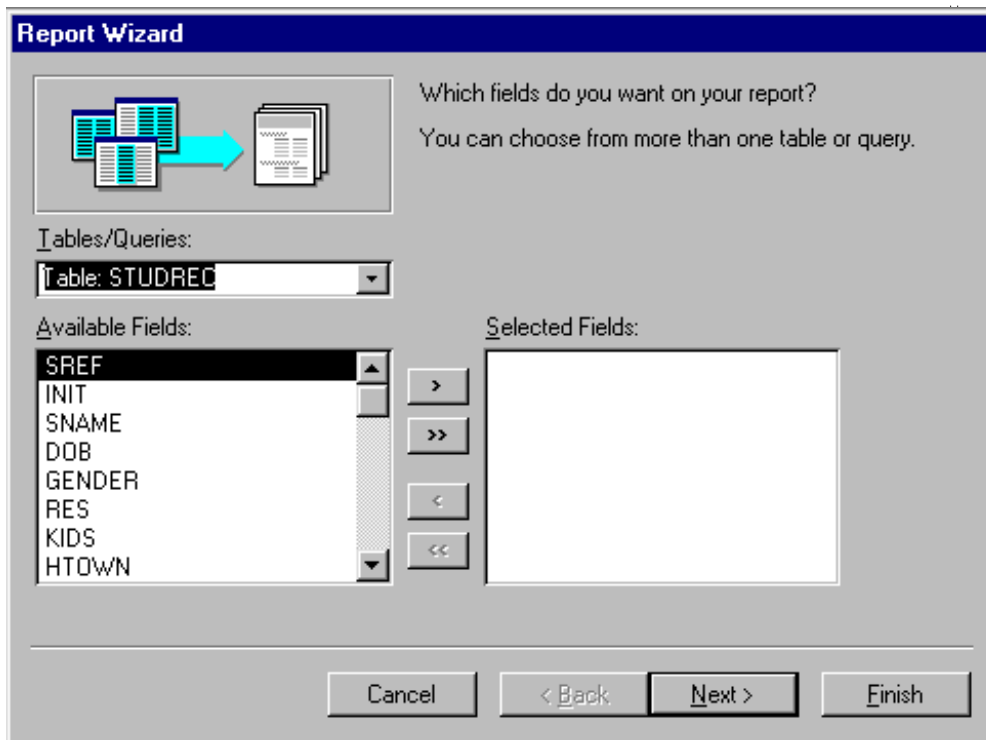


Figure 3.4: Report Wizard (screen 1)

Choosing which data fields to be displayed is one way that you can exercise control over the presentation of your report. It is important to realise that you do not have to display all data in all circumstances.

You may have noticed that the wizard informs you that you can have more than one table or query as the basis for your report. This will be revisited when we start our discussions around relational databases. For now, selecting the single table STUDREC (as you have already done) will be sufficient.

In this example we are going to choose to use all data fields, so

☞ click in the “double right arrow” >>

to select all of the available data fields. You can check that you’ve got this right by inspecting the “selected fields” list on the right of your wizard screen.

☞ Click on the NEXT button to move to the “grouping screen” (Figure 3.5).



Notes

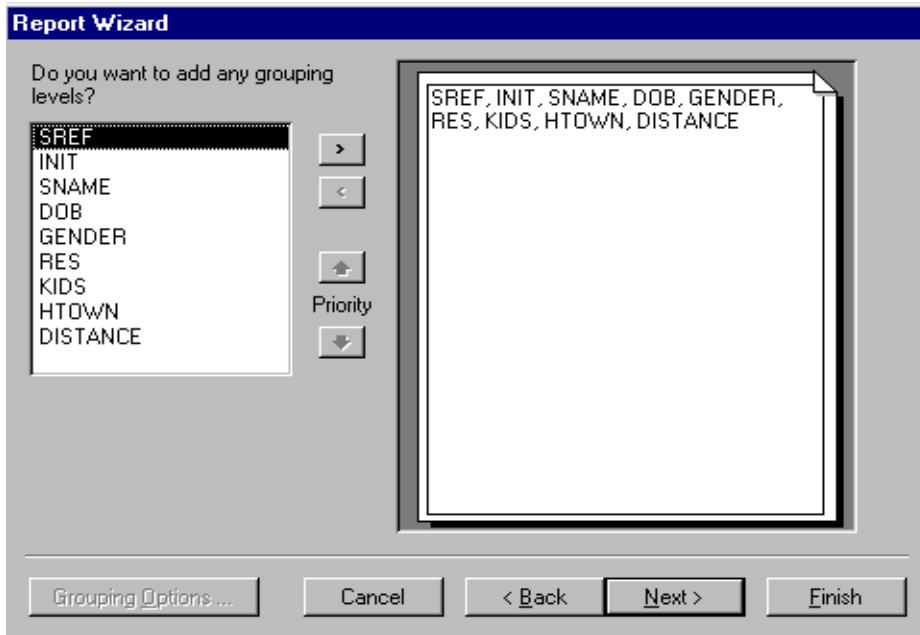


Figure 3.5 Grouping

Grouping options allow us to sub-divide the report, for example to group those students from the same home town together in one section of the report. We'll look at this in more detail later in this section.



Press the "Next" button to move to the sort order dialogue box (Figure 3.6).

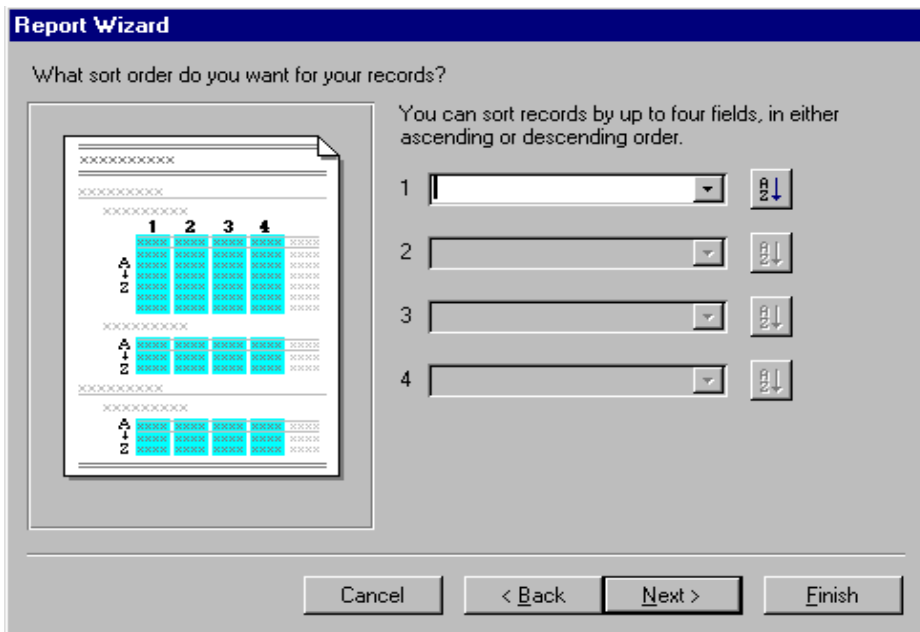


Figure 3.6: Sorting



Sorting data is an important feature of report design, however as we are keeping this example simple, we'll skip this section by clicking the "NEXT" button. This will bring us to the report layout section of the wizard (Figure 3.7).

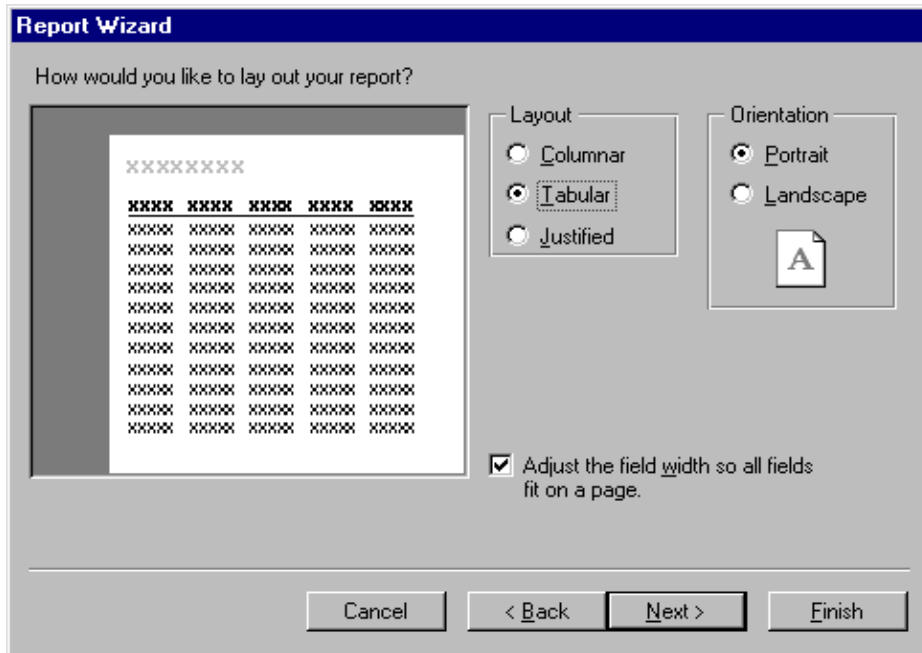


Figure 3.7: Page Layout

- ☛ Select a Tabular Layout
- ☛ Ensure that the paper orientation is set to "Portrait"
- ☛ Ensure that the box to adjust field width is ticked (this will narrow field widths if needed in order to ensure that all of the fields fit on the page.
- ☛ Click on the "NEXT" button to move to the STYLE options of the wizard (Figure 3.8).



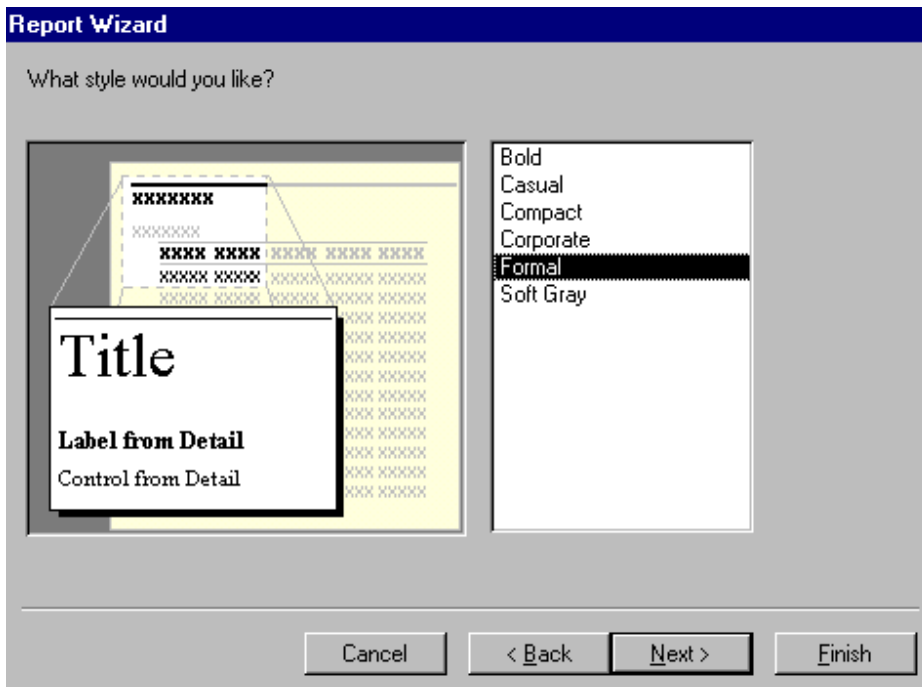


Figure 3.8: Style

- ☛ Select the FORMAL style
- ☛ Click on the “NEXT” button to move to the final screen in the report wizard (Figure 3.9)

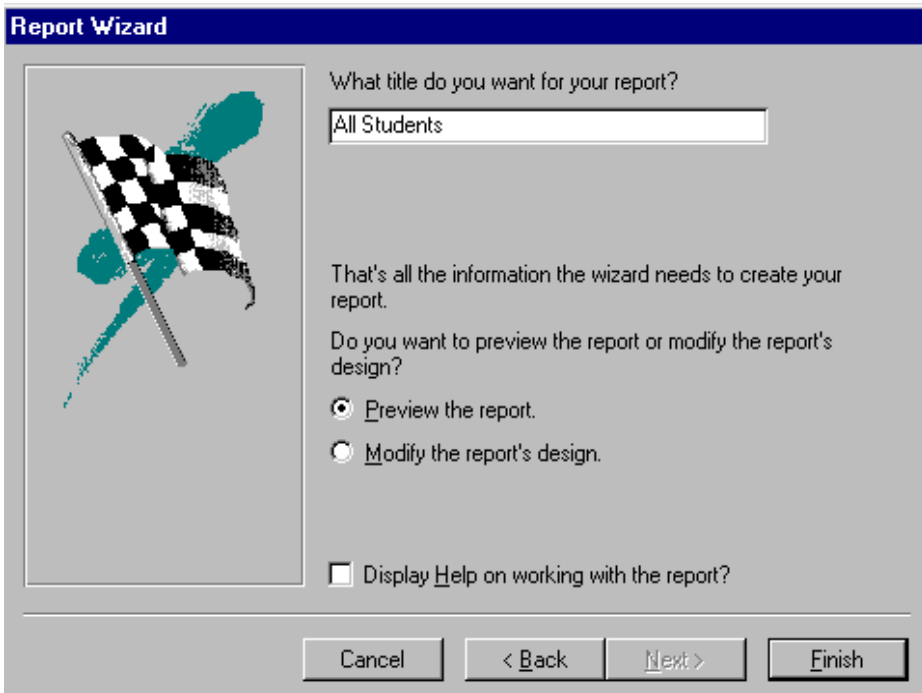


Figure 3.9: Saving the Report



Notes

We now need to save this report definition.

- ☛ Name the report "All Students" and press the "FINISH" button.

The report you created will be displayed in layout mode on your screen.

- ☛ Inspect your report closely and ensure that it is as you expect.

### Changing the position and size of objects in a report.

It is possible that the Hometown field will not be fully displayed in some cases. In this case if we were to examine the report in design mode we should be able to adjust the field width to fully display the names of the home towns.

- ☛ Click on the "Design View" icon (top left of your screen).

This will display the report definition in a much more complex "design mode". The pay off for complexity is that we have much greater control over the layout.



Report Header									
All Students									
Page Header									
SREF	INIT	SNAME	DOB	GENDER	RES	KIDS	HTOWN	DISTANCE	
Detail									
SREF	INIT	SNAME	DOB	GENDER	RES	KIDS	HTOWN	DISTANCE	
Page Footer									
=Now()								= "Page " & [Page] & " of " & [Pages]	
Report Footer									

Figure 3.10: Report Design View

You will notice that the design view is laid out in a number of sections.



**Report Header:**

This contains information that appears in the main title of the report. This appears only once in the report.

**Page Header:**

This contains information that will appear at the top of every page in the report.

**Detail:**

The detail section contains references to the data that will be printed out in the report.

**Page Footer:**

This contains information that will appear at the bottom of every page in the report. You will notice that the Report wizard has placed **=Now()** and **= "Page " & [Page] & " of " & [Pages]** in the footer section. These are examples of Access functions.

**=NOW()** is a function that returns today's date.

**[Page]** is a built in Access variable that contains the current page number.

**[Pages]** is a built in variable that returns the total number of pages in the report.

**Report Footer:**

This contains information that appears once at the very end of a report.

As well as the different sections, there are three different types of **object** contained in this report:

**Label:**

The main heading (All Students) and all of the data field headings are labels. Labels contain descriptive text.

**Text Box:**

This is used to display underlying data in a report, the data fields in the details section are displayed in text boxes as are the page footer details.



**Line:**

This is a graphics object and is used to draw lines in the report. The line under the field labels in the page header section is an example of such an object.

**Resizing & Moving Objects**

Consider the data field text box for DISTANCE that is located in the DETAILS section of the report. As the object has been selected by clicking on it with the mouse, it has handles displayed (black squares). By pulling these handles (drag them with the mouse) it is possible to resize the object. The larger square (top left of object) is used to move the object.

**Exercise:**

- ☛ Adjust the size and location of the RES, KIDS, DISTANCE and HTOWN data field text boxes and (if necessary) the data labels in the page header section in order to fully display all fields in this report
- ☛ Save your report
- ☛ Print out your report.

Do questions 3.1 to 3.8 NOW

***Adding a calculated field to a report***

So far so good. Even with the minimal set of tools explored to date we can produce really professional reports. It is important to realise that all we have done so far is to reproduce on paper exactly what is stored electronically in the data table STUDREC. What if we wanted to print a line in the report that gave us the total number of children attending the College? We don't directly store that information in STUDREC so how is this done?

The solution to this problem is to add another text box to our report and place one of the Access Functions in it. This is known



as a calculated field and the actual contents are worked out on the fly as the report is being generated.

- ☛ Ensure that the report All Students is open and that you are in design mode.
- ☛ Click on the lower edge of the horizontal Report Footer Bar and drag the mouse down. This should expose an area of white that will enable you to add objects to the Report Footer. See Figure 3.11.

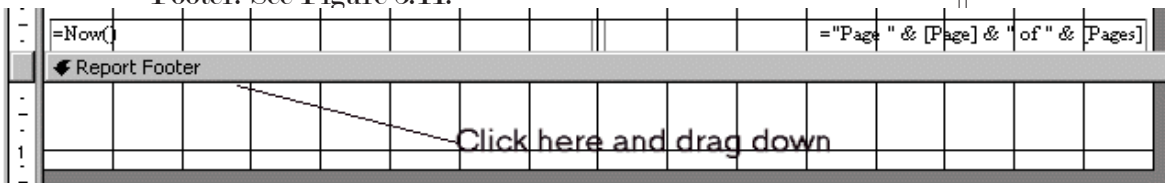



Figure 3.11: Report Footer

- ☛ Ensure you can see the “Toolbox” window on your screen. If you can’t, select the VIEW/TOOLBOX menu option to make it appear.
- ☛ Click on the text box symbol. 
- ☛ Move the mouse to the Report Footer area and drag the outline of a text box (see Figure 3.12). Notice that an additional text label appears (it will say TEXT25 or similar).

We don’t want the label so we’ll delete it.

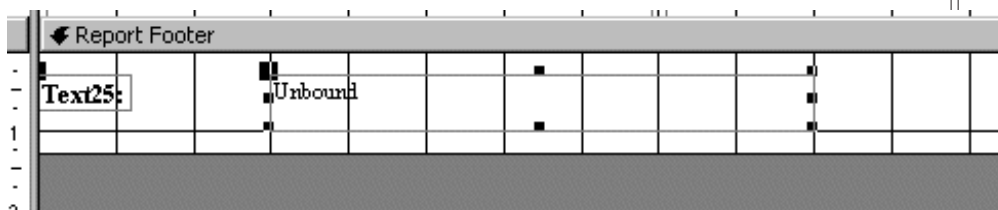


Figure 3.12: Inserting a text box

- ☛ Highlight the text label (the one that displays “Text 25”) and press the DELETE key. You should be left with the text box.
- ☛ Double click on the text box (this will enable you to edit the contents).





Enter the following text (exactly as shown):

= "Total Number of Children=" & Sum([KIDS])

The line above can be broken down into its constituent parts as follows:

=

Indicates that a function or calculated field is to follow.

"total number of children="

The quotation marks enclose literal text (i.e. whatever is enclosed in quotation marks is displayed exactly as written).

&

The ampersand joins (concatenates) the first chunk of text with the rest of the calculated field.

Sum()

The SUM() function is designed to add up whatever we ask it to. We do this by giving it information inside the brackets.

[KIDS]

KIDS is the name of the field that we wish to sum. Supply this within square brackets.



When you have finished entering the text, select the **REPORT VIEW** mode and check that your report is correctly displaying the total number of children.



- ➔ Move back to the design view

Maybe the text could do with being in a larger type.

- ➔ Right click on the text box in the Report Footer and select the **PROPERTIES** option from the pop up menu that just appeared.
- ➔ Find the **FONT SIZE** option and change it to 14 point.
- ➔ Check that your report looks as you expected it to and print it.
- ➔ Save and close your report.

## *Designing a Sorted and Multilevel Report*

Hopefully by now you will have reached the conclusion that designing well laid out reports in Access isn't such a tough job. The fairly straightforward report layout we've just completed represents only a fraction of what can be done using the Access reporting facilities. A slightly more involved example will show how a report can be used to sort data, group data and to include more complex calculated fields.

The example we'll build up is the report shown in Figure 3.18.

Notice that this report is grouped into a block of female students and a block of male students. Within each group students are ordered alphabetically by surname and initials.

Notice also that there is a calculated field that displays the average age of both men and women.

To begin to build up this report, work through the following steps:

- ➔ Begin the new report by ensuring that the **REPORT** tag on the database control box is selected and then press the **NEW** button.



- ☛ As before, select the **REPORT WIZARD** and base the report on the table **STUDREC**, then press the **OK** button.
- ☛ When prompted, select all of the fields except **SREF** and press the **NEXT** button to move to the Grouping screen of the Wizard.
- ☛ Select the field **GENDER** and press the right arrow button.



You should now see the following screen (Figure 3.13). This indicates that the report will be sub divided into two sections, one for Gender=F and the other for Gender=M.

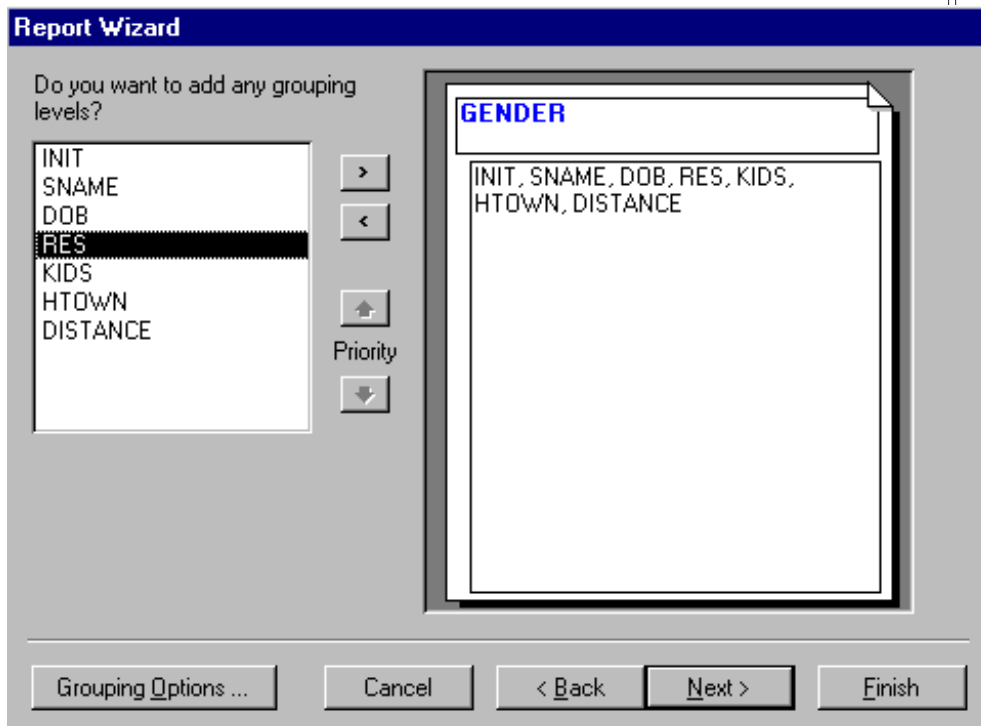


Figure 3.13: Group By Gender

The next stage is to arrange for students to be listed alphabetically by surname within each section, this is done by sorting on SNAME. However this on it's own won't guarantee that the students will be in sorted order by name. It is still possible to have B ARNOTT listed before A ARNOTT.

To deal with this we need to include the INIT field in our sorting criteria.



We need to sort on SNAME first, then INIT.

- ☛ Press the NEXT button to move to the Sort Order window.
- ☛ Select SNAME for field one and INIT for field 2
- ☛ Ensure that both fields are set to ascending order (i.e. we go from A to Z rather than Z to A): see Figure 3.14.

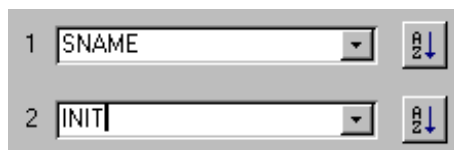


Figure 3.14: Sorting by Name

- ☛ Press the NEXT button to move to the Report Layout window
- ☛ Select Stepped for the layout and Portrait for orientation
- ☛ Press the NEXT button
- ☛ Select FORMAL for the style
- ☛ Press the NEXT button to move to the report title window
- ☛ Call your report GENDER ANALYSIS
- ☛ Press the FINISH button

The report will now be generated and will look something like the one shown in Figure 3.15.



Notes

## Gender analysis

GENDER	SNAME	INIT	DOB	RES	KIDS	HTOWN	Distance	
F	ARNOTT	A	21-Aug-64	No	1	BARNLEY	1	
	ARNOTT	B	21-May-62	Yes	1	LEEDS	1*	
	ARNOTT	C	01-Apr-61	Yes	0	HUDDESFIELD	1*	
	ARNOTT	I	19-Jun-72	Yes	1	ROTHERHAM	20	
	ARNOTT	E	01-Aug-60	Yes	1	SHEFFIELD	1*	
	ARNOTT	P	10-Jul-65	No	1	SHEFFIELD	1*	
	BROWN	J	19-Sep-61	Yes	1	BARNLEY	1	
	CAPRA	U	12-Feb-77	Yes	1	HUDDESFIELD	1*	
	CARTER	J	21-Mar-64	Yes	1	BARNLEY	1	
	DAVIDSON	G	10-Feb-61	Yes	1	THURLSTONE	T	
	GREEN	J	06-Aug-69	No	0	BARNLEY	1	
	HARVEY	L	01-Aug-64	No	1	THURLSTONE	T	
	HEY	N	10-Dec-66	No	0	SILESTONE	1	
	JAMISON	T	21-Jun-29	Yes	0	SILESTONE	1	
	JONES	A	10-Nov-81	Yes	1	SHEFFIELD	1*	
	KIGHT	H	12-Jun-70	Yes	1	DENCASTER	26	
	LANGLBY	S	21-Aug-67	No	0	HUDDESFIELD	1*	
	LEE	D	01-Jun-61	Yes	0	HUDDESFIELD	1*	
	MARSHALL	J	01-Jul-60	No	1	THURLSTONE	T	
	NADIR	P	12-Dec-61	Yes	0	SHEFFIELD	1*	
	OLIVER	A	14-Feb-68	Yes	1	SHEFFIELD	1*	
	M	ALGAR	R	10-Mar-78	Yes	0	HUDDESFIELD	1*
		ARNOTT	A	21-Aug-64	Yes	1	BARNLEY	1
		CHESTER	J	16-Mar-60	No	0	BARNLEY	1
DAVIS		B	02-Nov-61	Yes	0	LEEDS	1*	
GREEN		J	09-Aug-65	No	0	BARNLEY	1	
GREEN		N	10-Sep-68	Yes	1	SHEFFIELD	1*	
HOLLAND		G	27-Dec-81	No	0	ROTHERHAM	20	
ISHARD		S	05-Dec-60	No	0	LEEDS	1*	
JACKSON		H	21-Apr-61	Yes	0	SHEFFIELD	1*	
MOSLEY		T	11-Dec-75	Yes	1	SILESTONE	1	
NADIR		B	14-Sep-68	No	0	SHEFFIELD	1*	
OSMAN		S	29-Aug-61	No	1	HUDDESFIELD	1*	
OSMAN		TJ	19-Sep-61	No	0	MILLHOUSE GREEN	9	



Notes

GENDER	SNAME	INIT	DOB	RES	KIDS	HTOWN	Distance
	NADIR	B	1-Aug-68	No	0	SHEFFIELD	1*
	OSMAN	S	19-Aug-61	No	1	HUDDERFIELD	1*
	OSMAN	TJ	19-Sep-61	No	0	MILLHOUSE GREEN	9
	POPPERS	J	10-Aug-65	Yes	0	HENDON	13*
	FURDLOW	W	01-Sep-69	Yes	0	SHEFFIELD	1*
	WATSON	P	01-Mar-68	Yes	1	THURSTON	7
	WHITE	A	10-Feb-61	Yes	1	SILESTON	1
	WHITE	C	01-Mar-66	Yes	1	BARNLEY	1
	WILSON	H	07-Jul-63	Yes	1	HUDDERFIELD	1*
	WILSON	E	11-Mar-66	No	1	BARNLEY	1
Average Age=1							

Figure 3.15: Gender Report (Version 1)



You may have to adjust the report layout slightly to ensure that all of the fields are visible. Remember that this is done in the Report Design mode.

- ☛ Switch to design view mode (we'll assume that any minor alterations to the layout have been done)

You should notice that another section has appeared in the report, a GENDER HEADER section. This will allow us to place headings at the beginning of each new section in the report.

However, we wish to place an average age calculation at the end of each section of the report. We need to add a SECTION FOOTER.

This is done by the following steps:

- ☛ Ensuring that you are in design mode, click on the "SORTING and GROUPING" icon - it's on the toolbar at the top of your screen.



This will display a Sorting & Grouping properties box (Figure 3.16).

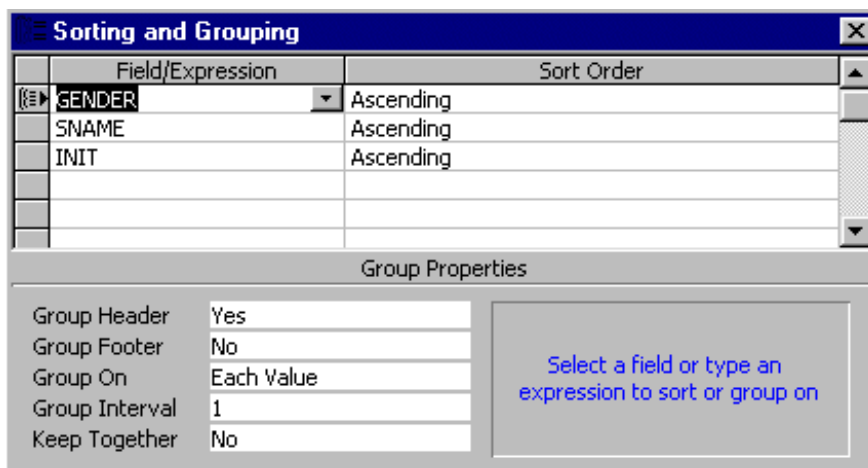


Figure 3.16: Sorting & Grouping Properties

Notice that the GROUP FOOTER is set to NO.





Change the value of the Group Footer to YES



Close the sorting & Grouping properties window

A Group Footer for GENDER has now appeared in your report design view.



If the TOOLBOX window is not visible on your screen, make it visible by selecting VIEW/TOOLBOX.

### Complex Calculated Fields

We are now going to build up the bit that displays “Average Age for Women=43” and “Average Age for Men=36”. It looks simple enough but there’s a lot involved. The trick here is to take it step by step. First, let’s read through an overview of the process. The entire calculated field contains the following formula:

```
= "Average Age for " & IIf([GENDER]="M", "men=", "women=") & Int(Sum(DateDiff("yyy", [DOB], Now()))/Count(*))
```

This isn’t going to make any sense at this stage. We need to learn about the Access functions used here and we also need to know how to build this expression up step by step.

=

The expression always starts with the = sign

“Average age for “

Anything enclosed in quotation marks is literal text and will be displayed on screen exactly as you typed it.

&

The ampersand is used to join (concatenate) different bits of the expression together.

iif([GENDER]="M", "men=", "women=")

This bit decides whether we print “men=” or “women=”.



Notes

The `iif(x,y,z)` is an Access function. It's job is to test a condition (x). if the result of the test is true the function will return y if the result is false the function will return z.

In this case if the field `GENDER = M` the function will return "**men=**" if not, it will return "**women=**".

Putting this lot together with the `=`"Average age for " & part of the calculated field we get either

Average age for men=  
Or  
Average age for women=

&

Concatenate the text generated so far with the rest of the expression

There are five functions involved here **INT()**, **SUM()**, **COUNT()**, **DATEDIFF()** and **NOW()**.

We'll approach these from "the inside out".

`Now()`

This function returns today's date.

`DateDiff("yyyy",[DOB],Now())`

The `DateDiff` function calculates the difference between two dates.

The "yyyy" bit tells `DateDiff` to give us the number of years between two dates.



Notes

Sum()

[DOB] is the date of birth field in STUDREC. This is the earlier date and is the first of the two dates to be given to the DateDiff function.

Now() is the later date and is the second date to be given to the DateDiff function.

This adds up everything we ask it to.

If we put the Datediff() function into the Sum() function we will get the total of all of the ages for both men and women.

This is because the calculated field we are working on is being placed in the GENDER Group Summary field.

So far the combined functions will look like this:

**Sum(DateDiff("yyyy",[DOB],Now()))**

/

This is the division symbol

Count(\*)

The Count(\*) function counts the number of records. In this case, because it is in the GENDER Footer, it will count only those records in that sub section of the report.

The \* is a wild card that tell the Count function to count all records (but only within the sub section)

Dividing the total of all ages by the number of students will give



Notes

us an average age.

The calculated field so far is:

**Sum(DateDiff("yyyy",[DOB],Now())/Count(\*)**

This is OK but we're likely to get answers like 43.676767 years, which might be accurate but is actually less clear than stating 43 years.

INT()




This is the integer function and its job is to take real numbers and return the closest whole number (integer).

If we place everything that we've done in the calculation so far into the integer function we will get what we've been working towards (44 - BUT this course was written in 2002, with each year that passes we get older).

The final calculated field is:

**Int(Sum(DateDiff("yyyy",[DOB],Now())/Count(\*)**

That's the theory. Let's put it into practice.

-  Click on the Text Box icon in the toolbox
-  Drag the outline for a text box in the gender footer section of your report.
-  Delete the text box label (be careful not to delete the text box itself - if you do, simply insert another text box).



The Gender Footer section should look like the one in Figure 3.17.

GENDER Footer											
		Unbound									
Page Footer											

Figure 3.17: Inserting a Text Box



Notes

- ☛ Click (twice) in the text box to begin to enter the calculated field.
- ☛ Type in the following:  
="Average Age="
- ☛ Click on the Print Preview Icon (top right of your screen) to view the report. Check that the phrase Average age- is at the foot of each section.
- ☛ Click on the Design View Icon to return to the design view.
- ☛ Click in the calculated field text box (i.e. average age) to begin editing the existing contents.
- ☛ Add to the existing contents the following:
- ☛ & DateDiff("yyyy",[DOB],Now())
- ☛ Click on the Print Preview Icon to check the results so far.

This LOOKS like it might have worked but a quick check with a calculator proves otherwise. What we've got here is the average age (to the nearest year - that's what the "yyyy" bit of the DateDiff(,) function does) of the LAST student in each section.

This won't do, we need to add up all of the ages in each section and then divide by the number of students in each section.


- ☛ Amend the calculation by enclosing the DateDiff("yyyy",[DOB],Now()) bit in the Sum() function so that it looks like:  
Sum(DateDiff("yyyy",[DOB],Now()))
- ☛ Click on the Print preview Icon to Check the results so far.

On my data I got 822 years and 877 years respectively. You will have slightly different results depending on what data you have



previously added to STUDREC. This is obviously not an average but the total combined ages of all students in each group.


We'll divide the totals in each group by the total number of students in each group.

 Amend the calculation by dividing what we've got so far by Count(\*). Your field should display the following:


```
Sum(DateDiff("yyyy",[DOB],Now()))/Count(*)
```


 Click on the Print preview Icon to Check the results so far

I got 39.1428571428571 and 43.85 respectively. The only thing remaining is to display this number as an integer. This is done by enclosing the entire calculation so far within the INT() function.

 Amend the calculation one last time so that it reads:

```
Int(Sum(DateDiff("yyyy",[DOB],Now()))/Count(*))
```

 Click on the Print Preview Icon to check the results. You should find them identical to the report shown in Figure 34.

 Save your work.

 Print out a copy of the report and close the report.



## Gender analysis

GENDER	SNAME	INIT	DOB	RES	KIDS	HTOWN	Distance
F							
	ARNOTT	A	21-Aug-64	No	1	BARNLEY	1
	ARNOTT	B	21-Aug-62	Yes	1	LEEDS	1*
	ARNOTT	C	01-Aug-61	Yes	0	HUDDERSFIELD	1*
	ARNOTT	I	19-Jun-72	Yes	1	ROTHERHAM	20
	ARNOTT	E	01-Aug-60	Yes	1	SHEFFIELD	1*
	ARNOTT	P	10-Jul-66	No	1	SHEFFIELD	1*
	BROWN	J	19-Sep-61	Yes	1	BARNLEY	1
	CAPRA	U	12-Feb-77	Yes	1	HUDDERSFIELD	1*
	CARTER	J	21-Mar-64	Yes	1	BARNLEY	1
	DAVIDSON	G	10-Feb-61	Yes	1	THURLSTONE	T
	GREEN	J	06-Aug-69	No	0	BARNLEY	1
	HARVEY	L	01-Aug-64	No	1	THURLSTONE	T
	HEY	N	10-Dec-66	No	0	SILESTONE	1
	JAMISON	T	21-Jun-59	Yes	0	SILESTONE	1
	JONES	A	10-Nov-81	Yes	1	SHEFFIELD	1*
	KIGHT	H	12-Jun-70	Yes	1	DONCASTER	26
	LANGLBY	S	21-Aug-67	No	0	HUDDERSFIELD	1*
	LEE	D	01-Jun-61	Yes	0	HUDDERSFIELD	1*
	MARSHALL	J	01-Jul-60	No	1	THURLSTONE	T
	NADIR	P	12-Dec-61	Yes	0	SHEFFIELD	1*
	OLIVER	A	14-Feb-68	Yes	1	SHEFFIELD	1*

Average Age=19

## M

	AGGAR	R	10-Mar-78	Yes	0	HUDDERSFIELD	1*
	ARNOTT	A	21-Aug-64	Yes	1	BARNLEY	1
	CHESTER	J	16-Mar-60	No	0	BARNLEY	1
	DAVIS	B	02-Nov-61	Yes	0	LEEDS	1*
	GREEN	J	09-Aug-65	No	0	BARNLEY	1
	GREEN	N	10-Sep-68	Yes	1	SHEFFIELD	1*
	HOLLAND	G	27-Dec-81	No	0	ROTHERHAM	20
	ISHAMD	S	05-Dec-60	No	0	LEEDS	1*
	JACOBSON	H	21-Aug-61	Yes	0	SHEFFIELD	1*
	KESLEY	T	11-Dec-75	Yes	1	SILESTONE	1



Notes

GENDER	SNAME	INIT	DOB	RES	KIDS	HTOWN	Distance
	NADIR	B	1-Aug-88	No	0	SHEPPARD	1*
	OSMAN	S	19-Aug-81	No	1	HUDDERSFIELD	1*
	OSMAN	TJ	19-Aug-81	No	0	WILLHOUSE GREEN	9
	POPPERS	J	10-Aug-85	Yes	0	HENDON	118
	FURDUM	W	01-Sep-89	Yes	0	SHEPPARD	1*
	WATSON	P	01-Mar-88	Yes	1	THURLESTONE	7
	WHITE	A	10-Feb-81	Yes	1	SILESTONE	1
	WHITE	G	01-Mar-85	Yes	1	BARNLEY	1
	WILSON	H	07-Mar-81	Yes	1	HUDDERSFIELD	1*
	WILSON	E	11-Mar-85	No	1	BARNLEY	1
Average Age=1							

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Figure 3.18: Gender/Age Report



## Basing a report on a query

It is also possible to base a report on a query (which may contain a set of related data tables - this is covered later in the course).

Let's take the relatively straightforward example of listing all students who live in Barnsley. This will be done by selecting the query "BARNSELEY" on which to base the report.

The following example assumes that you have completed the earlier questions that were set and that you have a query called BARNSELEY saved in your Access database.

- ☛ Ensure that you have the database window on your screen and that you have the report tab selected.
- ☛ Press the NEW button
- ☛ Select the Report Wizard
- ☛ This time, rather than base the report on the table STUDREC we are going to base it on the query BARNSELEY. Select the Query BARNSELEY.
- ☛ Press the OK button
- ☛ Select all of the fields and press the NEXT button to move to the Grouping window
- ☛ We are not going to group this report so press the NEXT button to move to the Sorting window
- ☛ Press the NEXT button to move straight to the Layout window
- ☛ Ensure that TABULAR and PORTRAIT are selected and press the NEXT button to move to the Style window
- ☛ Select FORMAL and press the NEXT button to move to the report title window



- ☛ Call your report Barnsley and press the FINISH button
- ☛ Examine your report: you should see that it has included only those students who live in Barnsley
- ☛ Save your work and close the report

### *Exercise 3:*

Answer all ten questions.

Submit printed copies of all ten reports to your Tutor not more than one week after this exercise was set.

Ensure that your name is on all answers and that each report has the question number written on it.

Ensure that your answers are submitted in numerical order from 1 to 10.

Design, create and print a copy of the following reports **It is important that you save your reports under the file names given in each question as we will be referring to these files later in this course.**

If you find that any data fields do not fit on the page, amend your report so that they do.

#### **Question 1**

Design a Report to list all students, do NOT list SREF or DOB.

Save your Report as "ALL STUDENTS - No Dates"

#### **Question 2**

Design a report to list all students, only list Initials, Surnames, and dates of Birth.

Save your report as "All Students - Dates of Birth"



Notes

**Question 3**

Design a Report to list all students

Group the report by Home town.

Save your report as "All Students by Home Town"

**Question 4**

Design a Report to list all students by alphabetical order of name.

Save your report as "All Students- By Name"

**Question 5**

Design a report to list all students by date of birth starting with the youngest first through to the oldest last.

Only include the fields DOB, INIT and SNAME in your report. Make sure that the fields are displayed in that order across the page.

Save your report as "All Students - By Age"

**Question 6**

Design a report that lists all students and sub divides the report into Home towns and further into male/female sub groups.

Save your Report as "Home Towns/Gender"

**Question 7**

Design a report to list only men from Leeds or Barnsley. Make sure that you include all fields.

Save your report as "Men from Barnsley or Leeds"



**Question 8**

Design a report to list all students who are resident with children. List students in order of children from most children through to least children.

Save your report as "Resident Students with Children"

**Question 9**

Design a report to give a total count of only those students who live in Barnsley.

Group your report into Men and Women

You should list only INIT, SNAME, GENDER and HTOWN.

Make sure that you include a line at the bottom of your report that reads:

The total number of Students from Barnsley = ??

Format this line to be at 14 point and in bold.

Save your report as "Total Number of Students from Barnsley".

**Question 10**

Create a report that lists all students and subdivides the report into Resident and non-resident students.

You should give the total number of students in each category and also give the total number of students in the entire report. List all fields in any way you see fit.

Save your report as "Res/Non Res Students".

