
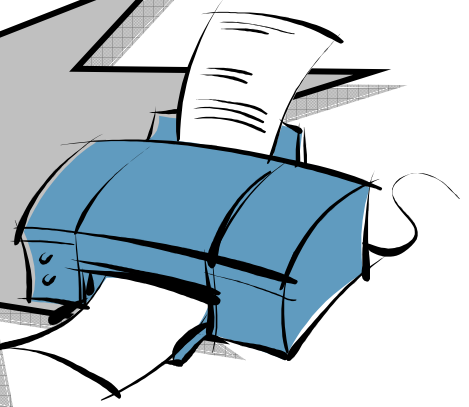


Databases Year 8 Lesson 1

Data type	Would use for:	Note
Text	Alphanumeric data i.e. any letter, number or other symbol (post codes, phone numbers)	A field can but 255 characters in length
Number	Numeric data	Can choose a whole number or a number with a decimal point. Each of these categories has several choices in Access depending on the size of the number you want to store. 
Date/Time	Dates and times	You should always use a Date/Time data type for a date or time. Access can calculate with dates but not text.
Currency	Anything to do with money	
Yes/No	True/False data	Where there are only two possible choices (male/female; married/single; etc.)
Auto Number	Will automatically number the field	Usually for the key field to give each record a unique number.
Look up Wizard	Create a list you can choose from	Useful when there are several possible answers e.g. GCSE subjects or forms.

When you see the printer icon you must print something out for your folder.
Remember to put your name on it.

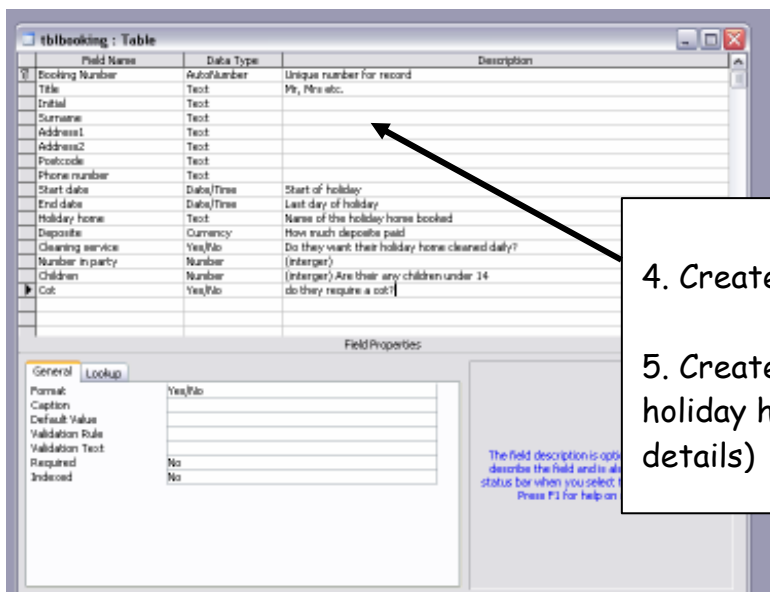
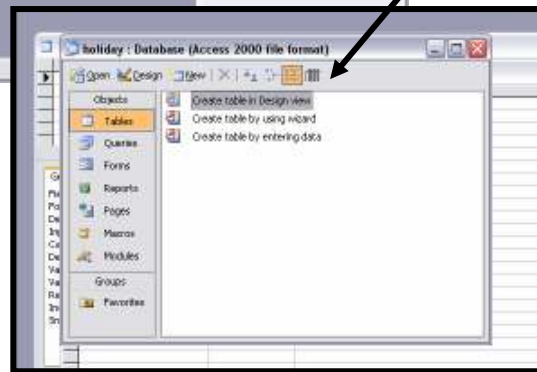
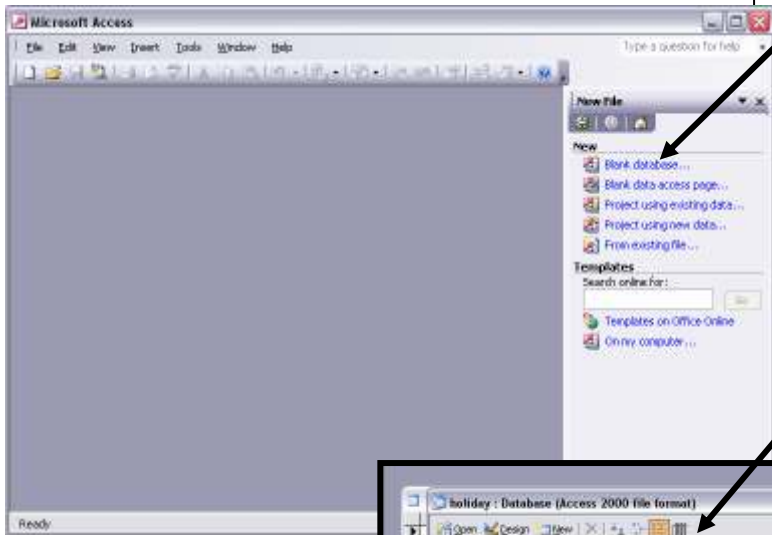


Open Microsoft Access.

1. Choose 'Blank database...' (pick list on right)

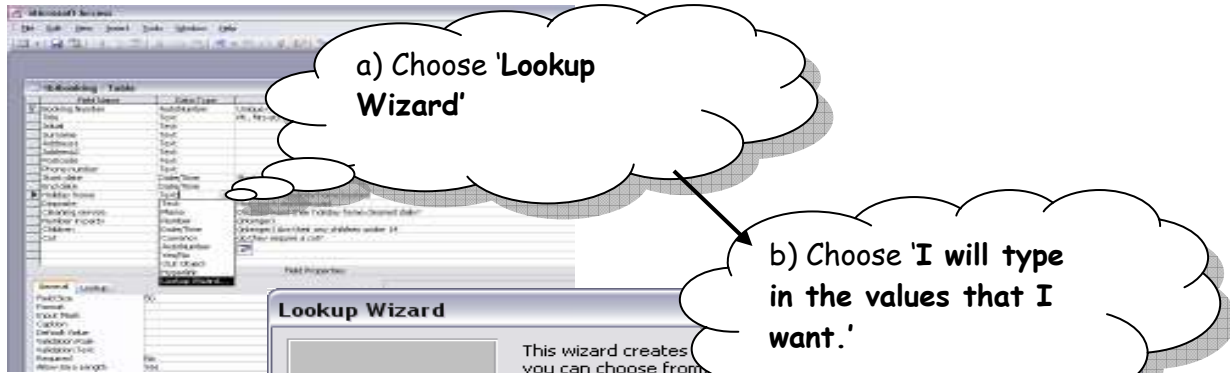
2. Name it 'Holidays'.

3. Click 'Create table in design view'



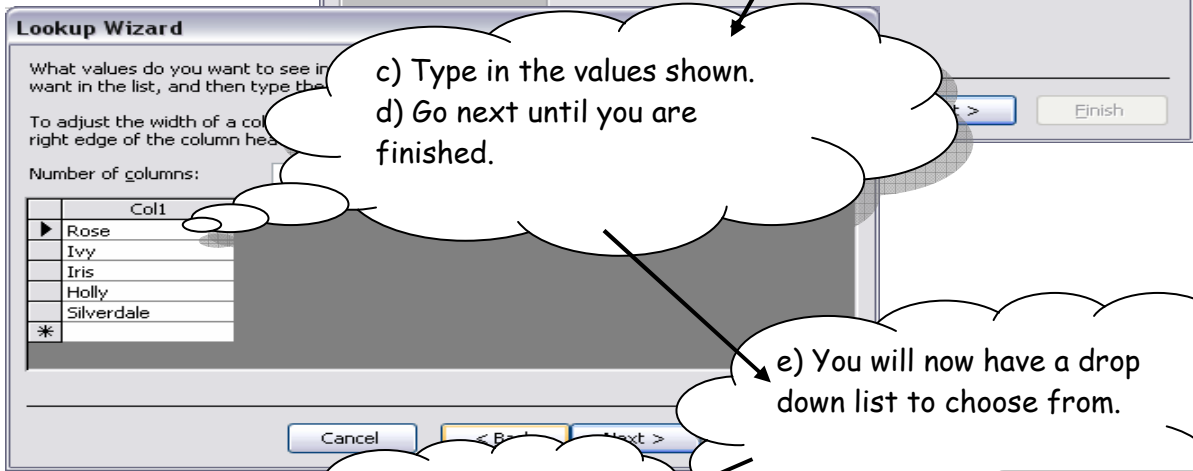
4. Create the database structure.

5. Create a lookup table for holiday homes (see next page for details)



a) Choose 'Lookup Wizard'

b) Choose 'I will type in the values that I want.'



c) Type in the values shown.
d) Go next until you are finished.

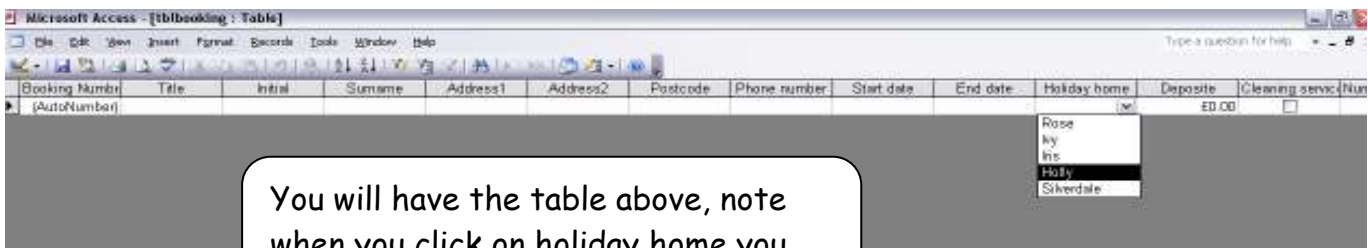
e) You will now have a drop down list to choose from.

f) Save as 'tblbookings'

g) Click the table icon to start entering data



Print screen your data base design and put it in your folder (remember your name)



You will have the table above, note when you click on holiday home you will get a drop down menu.

Extension work:
On the field 'Title' create a drop down look up menu with Mr, Mrs, etc...

Start entering this data:

Name	Address	Phone Number	State date	End Date	Holiday home	Deposit	Cleaning Service	Number in party	Children	Cot
Mr K Freal	33 The Elmhouse Skelmersdale LM3 4KK	01555 746473	02/06/07	16/06/07	Rose	£400	Yes	4	2	Yes
Mrs T Weir	386 Prescott Road Aughton LN3 7YH	01334 652948	02/06/07	09/06/07	Ivy	£300	Yes	5	3	No
Mr R Meggit	3 the Close Ainsdale SF8 9UO	01699 876349	09/06/07	23/06/07	Ivy	£450	No	3	0	0
Miss J Aspin	110 Wall Road Litherland L25 67Y	0151 978 6553	07/07/07	21/07/07	Silverdale	£350	No	3	2	No
Mrs K Roberts	33 May Close Seaforth L22 33K	0151 432 8763	21/07/07	04/08/07	Holly	£500	Yes	6	4	No
Mr W Dean	39 Galloway Road Waterloo L26 7YY	0151 922 3499	05/05/07	19/05/07	Rose	£150	Yes	2	0	NO
Ms J Ruths	22 Tanhouse Wigan WN3 8PL	01942 376552	18/08/07	01/9/07	Silverdale	£500	Yes	6	4	Yes
Dr A Goldstine	6 London Road Orrell WN4 5TB	01942 693726	04/08/07	25/08/07	Holly	£600	Yes	10	4	Yes

Yours should look something like this. Check it for errors and make sure you have capitalised names.

Booking Number	Title	Initial	Surname	Address1	Address2	Postcode	Phone number	Start date	End date	Holiday name	Deposit	Cleaning price	No
1	Mr	K	Freal	33 The Elmhouse Skelmersdale		LM3 4KK	01555 746473	02/06/07	16/06/07	Rose	400	400	
2	Mrs	T	Weir	386 Prescott Rd Aughton		LN3 7YH	01334 652948	02/06/07	09/06/07	Ivy	300	400	
3	Mr	R	Meggit	3 The Close Ainsdale		SF8 9UO	01699 876349	09/06/07	23/06/07	Ivy	450	400	
4	Miss	J	Aspin	110 Wall Road Litherland		L25 67Y	0151 978 6553	07/07/07	21/07/07	Silverdale	350	400	
5	Mrs	K	Roberts	33 May Close Seaforth		L22 33K	0151 432 8763	21/07/07	04/08/07	Holly	500	400	
6	Mr	W	Dean	39 Galloway Rd Waterloo		L26 7YY	0151 922 3499	05/05/07	19/05/07	Rose	150	400	
7	Ms	J	Ruths	22 Tanhouse Wigan		WN3 8PL	01942 376552	18/08/07	01/09/07	Silverdale	500	400	
8	Dr	A	Goldstine	6 London Road Orrell		WN4 5TB	01942 693726	04/08/07	25/08/07	Holly	600	400	



Print out a copy of the table.

Extension work. Add some more records (make them up)

Databases Year 8 Lesson 2

Starter (5 mins)

Field	Data type
Name	
Address	
Male/female	
Number of children	
Cost	
Age	
Date of birth	
Course	

Possible types
Date/time
Text
Yes/no
Currency
Number
Lookup table

Main

1. Open 'Holiday' database.
2. Create table in design view.
3. You will need the following data file - fill in the data types.

Field	Data type
Name of home (this should be primary key)	
No. of beds	
Cost	
Rooms	
Air conditioning	
Poolside	
Sea View	

4. Save as 'tblhomes'

5. Enter the following information into your new table.

Name of home	No. of beds	Cost	Rooms	Air conditioning	Poolside	Sea view
Rose	4	£500	5	Yes	No	No
Ivy	5	£600	4	Yes	Yes	Yes
Holly	10	£1000	8	Yes	Yes	No
Silverdale	7	£900	5	No	No	Yes

Print out your table and table design (do a print screen for this) and put it in your folder.



Check - you should now have 4 print offs. Both tables and designs - tblholiday and tblhomes. If you have not got them, do them now.

Relational Database

One strength of a database is you can link tables. This means that information in one table can be linked to another. It is known as a relational database.

You are going to link your 2 tables.

1. From 'Tools' click on

2. Add both tables.

3. Click on 'Holiday home'.

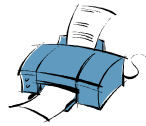
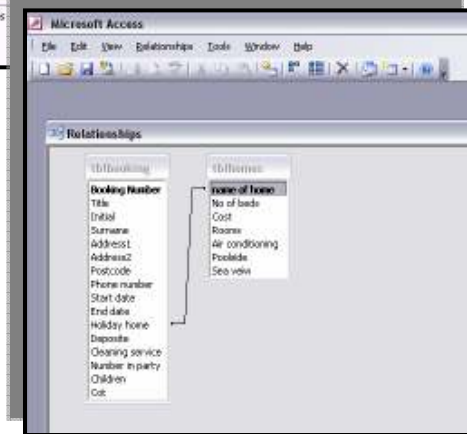
4. Drag it across and drop it onto 'name of home'.

5. You should now have a line joining the two tables.

6. Print screen and add to folder.



'Relationships...'



Check list	Done ✓
You should now have 2 tables which are related by the name of the holiday homes.	
You should have 5 print outs.	
You should understand fields, records and data types.	

Fill in the table below. You can use the internet or Access Help to complete the table.

Definitions	
Record	
Field	
Relationship	
Table	

Databases Year 8 Lesson 3

Editing and Queries.

Starter: Fill in the table below, give an example of each type of field you could use for the datatype. (5 mins)

Data type	Example of a field
Text	
Numbers	
Date/time	
Yes/no	
Lookup table	
Currency	

1. Open the Holiday database. You should now have 2 tables (see your teacher if you don't have this)

2. Some of the bookings have changed and some new ones have come in - you must edit the database to reflect these changes.

- Mr Freal is bringing an extra child.

- Ms Ruths has had to cancel due to illness - delete her record.

- Mr Dean's phone number has changed, it is now 07863364923

- A new booking has come in from Mr Morrison, 44 Lancaster Close, Blundellsands. LP9 9OK 0151 744 3625, It is for a family of 4, 2 of which are children no cot. They want a cleaning service and have paid a £400 deposit and want Ivy house for 01/04/07 until 1/04/07.

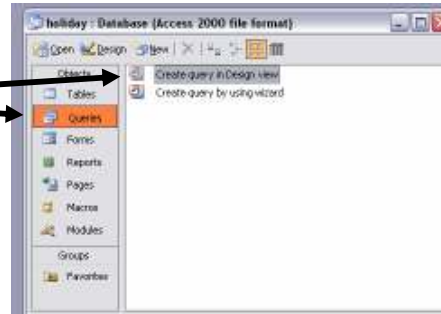
3. Print a copy of the new database out.



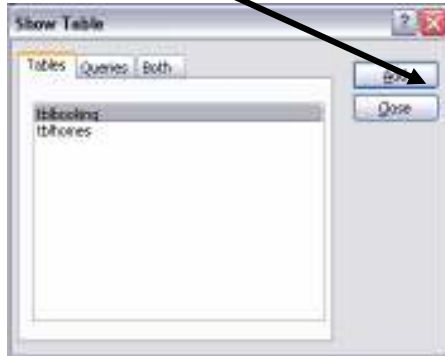
Queries

One of the many strengths of a database is you can ask it questions to find out information - this is known as a query. On a small database it would be easy to find the answers by looking, however, on a very large database (millions of records) this would be impossible.

1. From the start screen of the database pick 'Queries' and 'Create Query in Design View'



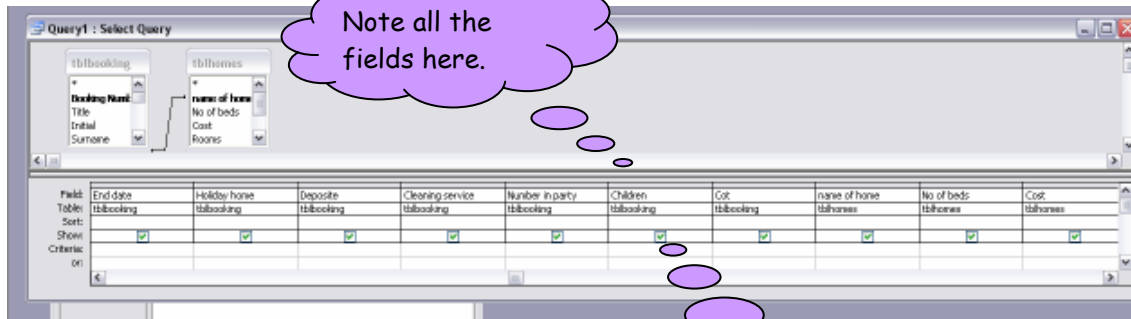
2. Add both tables and close.



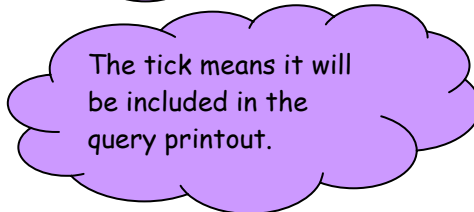
3. This is the screen you should now have.



4. Double click each field to add them to the query.



5. From the icons, click the red ! mark.



6. Look at the result, you now have a query which has merged the two tables.

7. Click on the design tool.



8. Under 'Cot' where it says 'Criteria' write Yes and run the query again.

9. Print out the results.



10. Clear the 'Yes' from 'Cot'

11. Queries can be run asking more than one question. Try to find out which booking for Holly requires the cleaning service. Print out your query.



12. Clear the criteria and save the query as 'qrybookingsall'

Operators for Queries

You can use different Operators to help with the queries - here is a table of some of the most common:

Operator	Meaning	Example
=	Equals	Cot = Yes
>	Greater than	No. people in party > 8
>=	Greater than or equal to	Deposit >=£300
<	Less than	Children < 3
<=	Less than or equal to	Children <= 3
Between	Between, including both specified values	Start date between 02/06/07 and 07/07/07

Extension work: Try running the queries. Print your answers.



Databases Year 8 Lesson 4

Mailmerge

Starter: Write down the operator required for each query.

Query	Operators
I want to find out all the numbers above 5, what would I put?	e.g. >5
I want to find all the bookings for the holiday home Holly, what would I put?	
I want to find who has booked between 10/7/07 and 30/9/07, what query would I write?	
I want to find who wants a cleaning service, what would I put in criteria?	

Another strength of a good database is the ability to use the data to create letters, labels etc., in another application. For example, you can take all the bookings from the database and send out a confirmation letter to all the people who have booked. This is how companies like Readers Digest send out letters to millions of people and make them sound personalised!

Mailmerge

The steps are as follows:

1. Create your database (you have done this already)
2. Create the letter.
3. Merge the data.

Easy! 😊

Let's do it.

Create the letter.

The letter you will send out will confirm the bookings taken and the deposit paid. You will create the letter once but it can be used many times.

1. Open Word and copy the letter opposite:
(just leave spaces do not type <leave 3 spaces>!))
2. Save it as 'Holiday Conf'
3. Close Word.
4. Open your Holiday database.
5. Open 'qrybookingsall' and run the query (red !)

Dingles Holiday Homes
Hashley-by-the-Sea
Heathcote NH2 5RF

01786 4328822
Email dingles@coldmail.co.uk

Dear

We are writing to confirm you booking. You are booked into <leave 3 spaces> House from <leave 3 spaces> to <leave 3 spaces> . Thank you for your deposit of <leave 3 spaces>£.

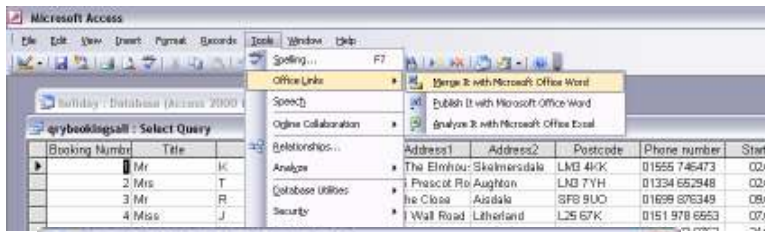
Please check the following:

Number in Party:
Children:
Cost per week: £
Number of rooms:

We look forward to seeing you on <leave spaces> .

Yours sincerely

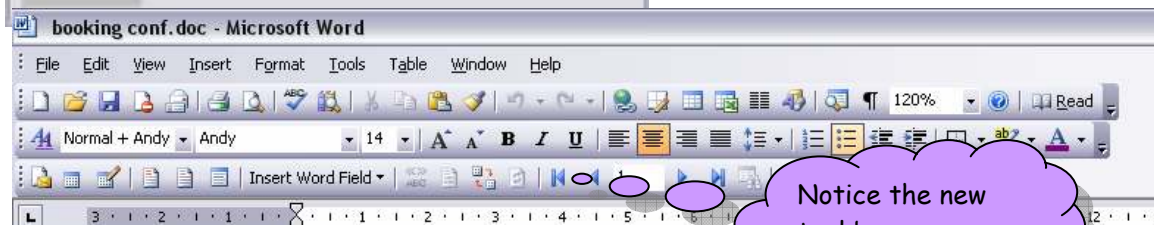
Mr Dingle
Booking Manager.



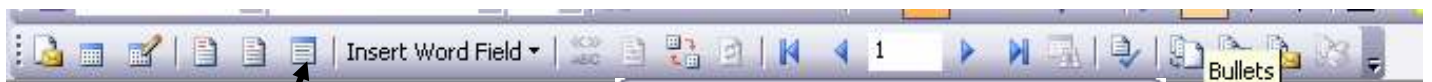
6. Click 'Tools' 'Office links...' 'Merge it with Microsoft Office Word'

7. Link your data to an existing Microsoft Word document. 'OK'

8. Choose your letter 'Booking Conf'.



9. You are now going to insert the fields into the letter. Start by putting your cursor next to 'Dear'.

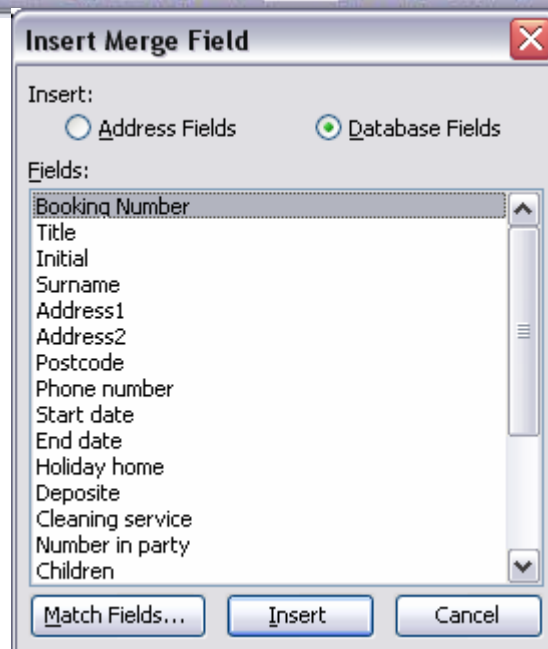


10. Click on 'Insert Merge Fields'

11. You will get this dialogue box.

12. Click on 'Title' then 'Surname'

13. Close box.



14. Continue this operation until you have entered all the required fields - it should look like this:

Dear «Title»«Surname»

We are writing to confirm you booking. You are booked into «Holiday_home» House from «Start_date»to «End_date» . Thank you for your deposit of £ «Deposit».

Please check the following:

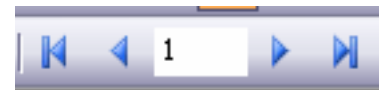
Number in Party: «Number_in_party»
Children:«Children»
Cost per week: £«Cost»
Number of rooms: «Rooms»

We look forward to seeing you on «Start_date» .

15. To view the merged letter click on



16. You should now see your first merged letter. To view the others click on:



17, You may need to edit the spacing so click on the ABC



icon again and edit the fields.

18. When you are happy with your editing you will merge the document.



19. You will now see you have several letters, print one or two out (don't print them all!!!!)



You have now used mailmerge to create several letters from one letter using a data source. Well Done!

Extension Work: Create a new letter which tells people about a welcome pack available. The pack will contain food and drinks (use your imagination) and will cost £75. You need to sell them the pack. Use information from your database (names, addresses etc.) and send everyone a letter.

Databases Year 8 Lesson 5

Forms

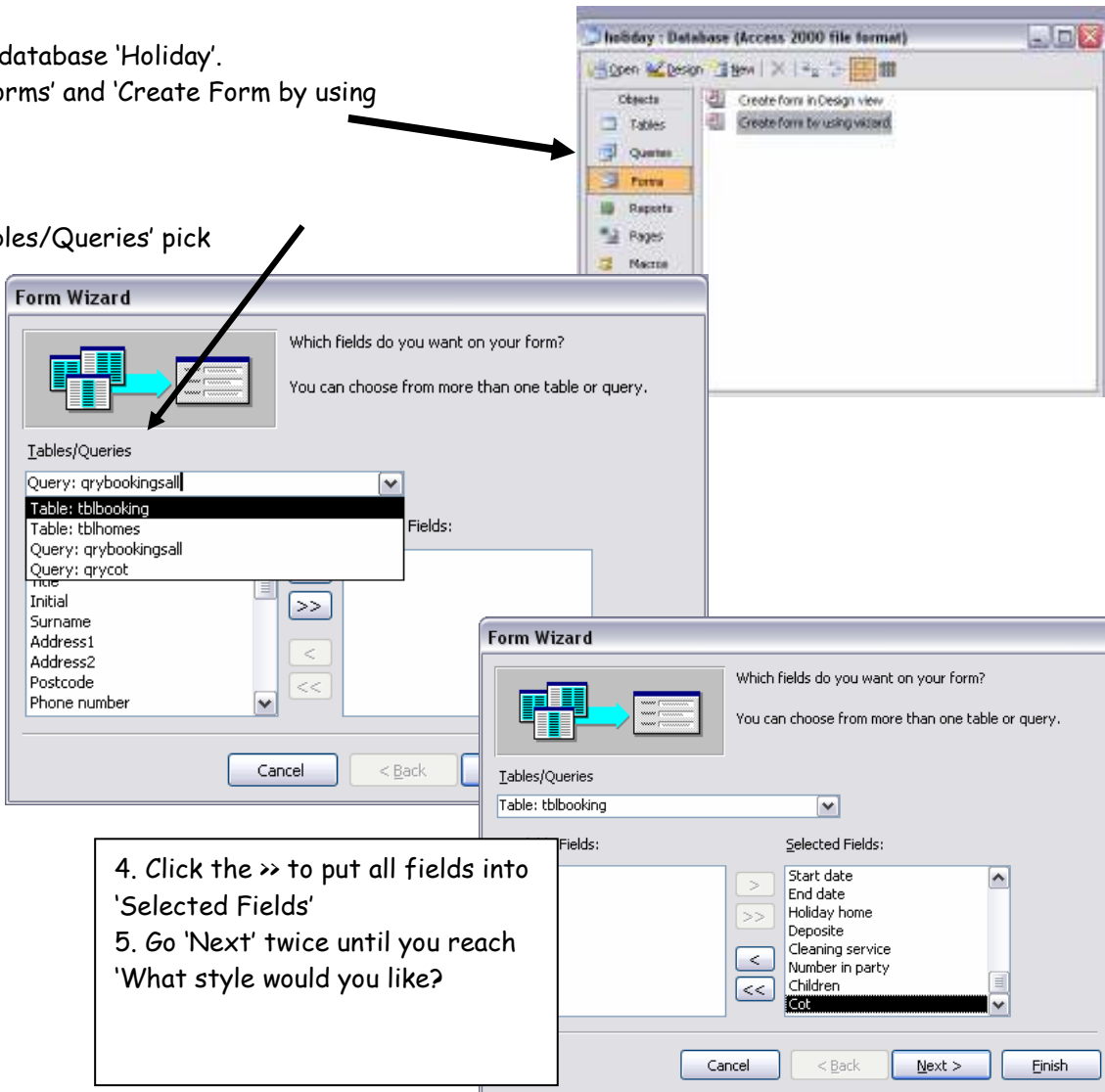
So far you have created a database with 2 related table and used mailmerge and queries - well done!

You have had comprehensive instructions to help. Can you imagine if you had to use a database with no instructions? Imagine the user of our database (Mr Dingle) if he had never used one having to enter all the information into the various tables - not easy! This is where forms come in, they make data entry easier.

Let's go.

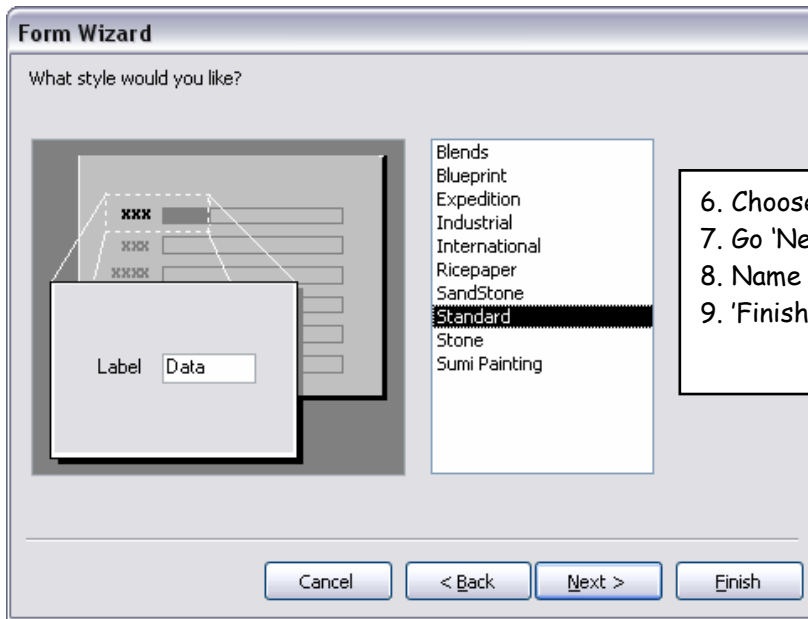
1. Open your database 'Holiday'.
2. Click on 'Forms' and 'Create Form by using wizard'

3. Under 'Tables/Queries' pick 'tblbooking'



The image shows a sequence of screenshots from Microsoft Access. The top screenshot shows the 'Holiday : Database (Access 2000 file format)' window with the 'Forms' menu open and 'Create form by using wizard' selected. An arrow points from this menu item to the 'Form Wizard' dialog box. The 'Form Wizard' dialog box has a 'Tables/Queries' list with 'Table: tblbooking' selected. An arrow points from this selection to the 'Form Wizard' dialog box. The 'Form Wizard' dialog box has a 'Fields' list with 'Initial', 'Surname', 'Address1', 'Address2', 'Postcode', and 'Phone number'. An arrow points from this list to the 'Form Wizard' dialog box. The 'Form Wizard' dialog box has a 'Selected Fields' list with 'Start date', 'End date', 'Holiday home', 'Deposit', 'Cleaning service', 'Number in party', 'Children', and 'Cot'. An arrow points from this list to the 'Form Wizard' dialog box. A text box at the bottom left contains the following instructions:

4. Click the >> to put all fields into 'Selected Fields'
5. Go 'Next' twice until you reach 'What style would you like?'



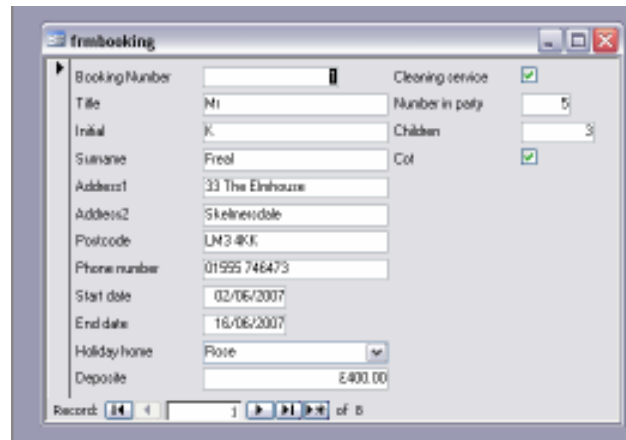
6. Choose a style.
 7. Go 'Next'.
 8. Name it 'frmbooking'
 9. 'Finish'

10. You will now have a form, depending on the style, it will look something like this:

11. Do the same for the 'tblhomes'.

Records can be added to these forms and they will appear in the query.

12. Print screen one form.



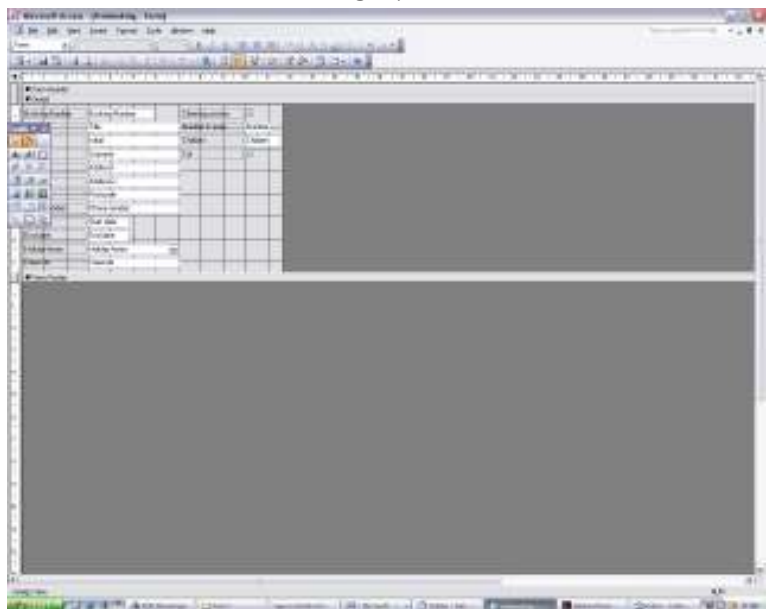
Extension work: Challenge!!!

Now the forms look alright, but you can format them to look better and add graphics.

1. Click on.



2. You will get this view. You can change the colours and position or insert a graphic - have a go!!



Databases Year 8 Lesson 6

Sorting and Reports

Sorting

Sometimes it is necessary to sort the database into order. This can be on text - Alphabetically or numbers - numerically. You are going to sort a table using both. Firstly Alphabetically.

1. In the 'tblbookings', click on the names field.

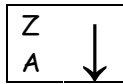
2. Click the 'Sort Ascending'; you will see the names have arranged themselves alphabetically.



3. Print out the table.



4. Now click on the



and notice the field is reversed.

5. Now try numerically on the Deposit field.

6. Print out the table



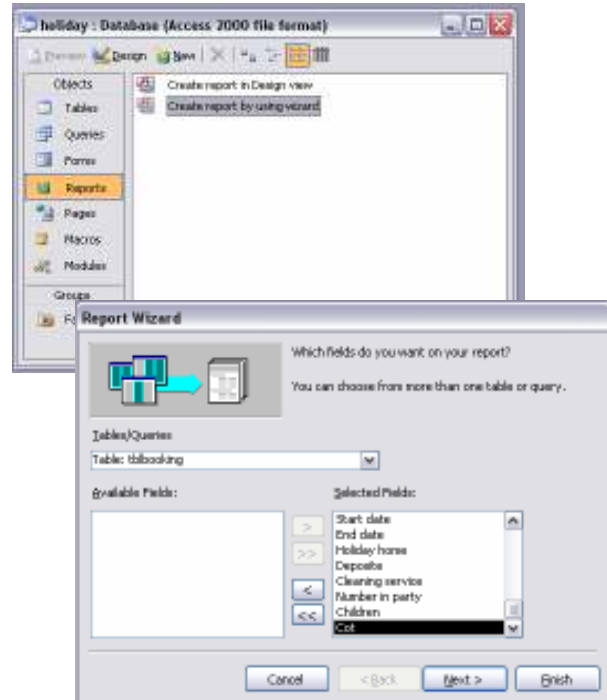
Reports

You have seen some of the powerful tools available Access. One other useful tool is the ability to print out reports. You can choose the information you want and format the look of the report.

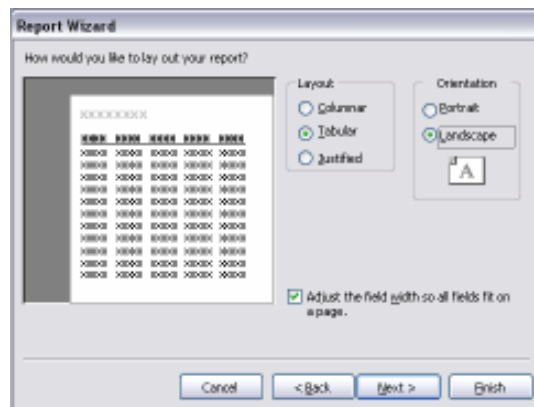
1. Open 'Holiday' database.

2. Click on 'Reports'

3. Drop down Table/Queries and choose tblbookings. Add all fields using >> button.



4. Go 'Next' until you have the layout screen and change in to Landscape.



5. Go 'Next' and choose a style.

6. Call it 'rptbooking' and finish.

Databases Year 8 Lesson 7 & 8

Creating a database.

Starter Week 7 (5 mins)

Imagine you are setting up a car database; what fields would you need? And what datatypes would they be? (

Field	Datatype
e.g. Model	Text

In real life, if you were creating a database you would have to start from scratch. You may even have to collect the data yourself. In the next two weeks you will create your own database - we have collected the data for you, all you have to do is decide on field names and datatypes.

The data is authors and the books they have written, it is a competition for new writers, if successful they will have their books published. Your task is to take the data and put it into a database which can be used to help organise the books. This is the raw data, it contains the name and address, phone number, date of birth, book title and genre (type of book, think about lookup tables for this, age group).

Jane Green, 23 The Pines, Formby Point. FM4 7YH. 10446 658295. 30/1/55 The Lifeboat Road. Mystery, Senior

Peter Mark, 99 Galloway Close, Stafford, ST4 8UJ. 01338 766397. 6/9/86. The Glue Factory. Comedy. junior

Frank Foster, 7 The Close, Aisndale, AN3 4RF. 01983 372912.8/3/45. Crooked House. Fantasy. senior

Joan Dean, 9 Watling Avenue, Litherland L24 7RE. 1051 928 4325. 7/5/66. Excel. Computing. Senior

Ruth Kensington, 9 Tanhouse Place, Wigan, WN2 1QA. 0162 3827552. 20/10/54. That's A Wolf! Comedy. Senior

Sandra Jones, 4 St James Road, Irchester, NN29 8PL 01933 38333. 3/6/51. The Little People. Fantasy. Senior

Danny Roberts, 3 Queens Street, Seaforth, L22 4RF. 0151 444 8739. 12/12/81. Guitar Rifts. Music. Junior

Liz Weir, 14 Aldbury Close, Kitt Green, WN8 7WS. 01455 766383. 30/2/79. Email for the Grey Surfer. Computing. Junior

John Dossy, 4 Fromby Road, Pineford. PN4 5CD. 0982 726428. 5/11/48. The Beatles - Music. Senior
19/21 Liz Birchall - year 8 database work.

To Help you design the database use this table.

Field	Datatype
e.g. Name	Text

1. Now open Access and create the database. (use the instructions from previous weeks if necessary - but try to do it without referring back, this way you will learn how to use it)

2. Print out the completed database.



3. Create a query to find out who has written a book about Computers. Print out the query.



4. Find a computer book written by a junior.

5. Create a query containing the author's name, book title and genre.

6. In Word, create a letter informing the authors they have all reached the final judging stage.

7. Mailmerge the query to the letter. (print one out.)



8. Create a report from the query. (print it out)



9. Create a form and format it.

10. On the form, insert a suitable graphics (screen print a copy of the finished form)



Databases Year 8 Lesson 9

Evaluation

Well done! You have arrived at the last week of the database section. You have achieved a lot of good work hopefully. Now is the time to evaluate the work.

Look at the check list below and tick off each of the sections you have done and the print outs you should have. Be honest with yourself but don't be modest, if you think you did well in something, then say so! .

PUT THE WORK IN ORDER!

What you have done	Really Well	Ok	Stuggled	Missed
Opened Access				
Oped and saved a blank database (Holiday)				
Designed a table (tblbookings)				
Used datatypes				
Created a lookup table				
Screenprint of database sturcture				
Entered the data into the table				
Printout of tblbookings				
Created a second table (tblhomes)				
Screen print of design				
Printout tblbhomes				
Created a relationship between the tables				
Screenprint of the relationship				
Edited the database (adding and deleting fields and records)				
Created queries				
Printed queries (cot and Holly cleaning)				
Created a letter in Word				
Used the letter for a mailmerge				
Printout of mailmerged letter				
Created a form				
Printout of form				
Format the form in design view				
Sort the database				
Print out the sorted database.				
Created a report				
Printout of report (before and after formatting)				
Created the Book Competition database and mailmerge etc.				