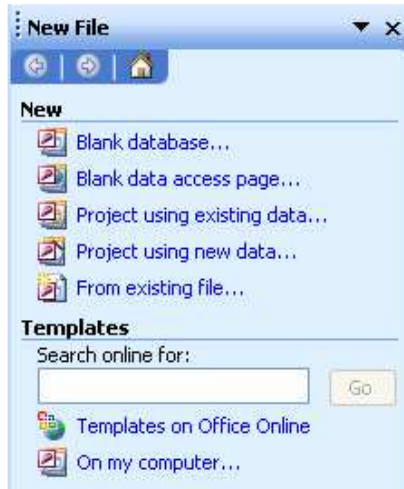# **Implementation**

In order to begin creating my database, I had to create my database I had to create an new database. This new database was to contain the database system in which the video company was going to use. After opening Microsoft Access, I clicked on the 'new' button which displayed the following screen.


This is the new button which I selected.

I then clicked on the selected the 'blank database' option which brought up a new box that asked me to name and save the new database. I saved it on my USB pen drive as it was external and portable. This means that I am able to take it with me to any computer and later on I could easily save it on the company computer as well.
After saving my empty database I began to create the table in which data was to be entered.

So that I could fill in data into the table with my chosen field names I had to select the option 'Create table in Design view' After doing this a new screen opened and allowed me to enter the field names, data types, descriptions etc.
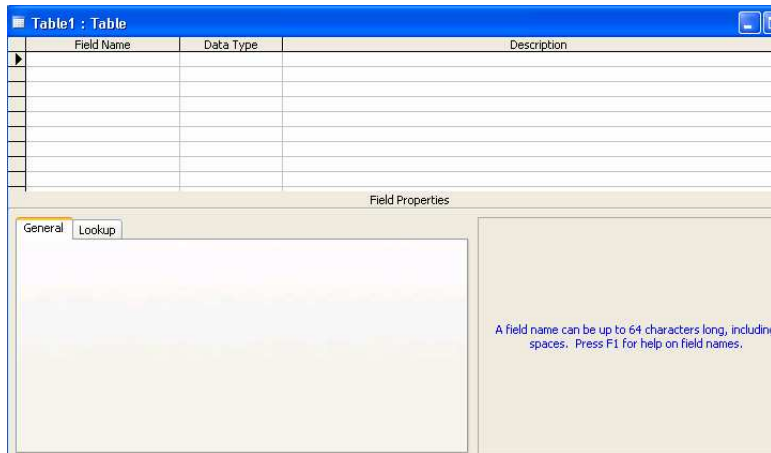
When creating all of my tables I filled in the field's names, the data types that they acquired and a description of the field. In the previous section since I had already created my database tables all I had to do was to copy and paste the field names into the blank database shown above.

Here I am entering the field names which is the unique name given to the data.

In this screen shot I am selecting the appropriate data type for the fieldname in question. The data type had to be correct or the table may not function properly. For example a number data type can not be used for film names as it is strictly for numbers and allows no gaps in between data.

A description was needed so that if the company was to change an assistant it would be fairly easy for the new assistant to become familiar to the new tables as they would know what to store in each one and why it is needed.

Although, as I was creating the tables I discovered that some things had to be changed realised during the creation of my tables that I could make improvements to what data was to be entered.

Firstly to improve the database I decided to make were to lower the sizes of the fields where necessary.

Field Name	Field Size
Film_id	4
Film_name	50

General | Lookup

Field Size   35
Format
Input Mask

In all my tables on a majority of my fields I changed field's sizes to reduce the characters allowed in certain records. I changed the characters to much smaller like 25 or less. For example in the print screens above show that I have changed the field size of the 'Film_name' record from 50 in my original design to 35. In this case I changed it because I felt that there would be no film name more than 50 character long. In the member table I change the characters allowed for the field 'county' from 50 to 14 as the biggest word to be uses was 'Greater London' needing only 14 characters .I decided to change the reduce the field sizes on a lot of my records as they weren't needed therefore creating little room for human error and taking my database to the best standard possible.

The second change that I made was in my member table, I added a validation rules within this table. As the video shop is based in outer Dartford I though that only customers who live locally would be likely to use the video shop. The other customers who may use the shop may also live in Crayford, Bexley and Bromley. Validation rules would prevent wrong data from being included in my database.

1)

Town	Text	To know where the person liv

General | Lookup

Field Size   25
Format
Input Mask
Caption
Default Value
Validation Rule
Validation Text
Required   No
Allow Zero Length Yes

2)

In the validation rule box by entering "Dartford" Or "Crayford" Or "Bexley" Or "Bromley" would ensure that only the towns stated could be entered into the database. The validation text I entered was 'Please enter town' in order to tell the user what the problem is. As the towns that were allowed to be entered were all in Kent or Greater London I created a validation rule I decided another validation rule could be added in the 'County' field.

1)

2)

By entering "Kent" Or "Greater London" as the validation rule the database would only accept Kent or Greater London as a county and if the tried to enter anything else then the validation text 'Members reside in Kent or Greater London' would inform them on what can be entered.

A different improvement that I made was when I added input masks to all my fields of the 'Date/Time' data type. The use of an input mask is to prevent wrong data from being entered. I am now going to show how a added them to the member table for the field 'DOB'.

1)

2)

By entering '00/00/00' it means that the only type of date that it would except would be e.g. 12/05/07 and nothing else. This would ensure that only a valid date format would be inputted in the table and it would reduce risk of errors in the database.

The following screen shots are images of my completed tables.

Film table

Field Name	Data Type	Description
Film_id	AutoNumber	Gives the record a unique identification
Film_name	Text	To be able to identify the film
Certificate	Text	The search for films suitable for specific age group
Genre	Text	To search for films of a specific genre
Director	Text	To search for films by a certain director
Running Time	Text	To search for films of certain lengths
Format	Text	To search for films either available on DVD or Video
Date_of_release	Date/Time	To search for old and new films
Rented	Yes/No	To know if a film is in stock

Member table

Field Name	Data Type	Description
Member_id	AutoNumber	Gives the record a unique identification
Firstname	Text	Allow the user to shorten a customers name
Surname	Text	Enable the user to address full name
DOB	Date/Time	Allows user to know customers age and what they can watch
Address line 1	Text	To know where the person lives
Address line 2	Text	To know where the person lives
Town	Text	To know where the person lives
County	Text	In order to send a letter to the address.
Postcode	Text	In order to send a letter to the address.
Telephone number	Text	To quickly contact a customer
Email	Text	Gives the user an alternative way of contact

Loan Table

| Field Name	Data Type	Description
Loan_id	AutoNumber	Gives the record a unique identification
Member_id	Number	To know which member loaned the video
Film_id	Number	To know the video being loaned
Date due	Date/Time	To let the user know when the loan is due so appropriate procedures may be taken if it isn't

Linking Tables together

In order for my database to flow together created table relationships. The first relationship created by joining was between the 'customer_id' field in the customer table, which is an autonumber, and the same field in the loan table. This will mean that the rental table will link the customer table and the car table, which will enable the data to be accessed from the linked table. By enforcing referential integrity it means that I will not be able to delete a record from the customer table if it is linked to in the rental table.

Finally, to allow my database to flow and function I had to create table relationships. To create the relationships I went 'Tools' on the menu bar and selected the option 'Relationships' and clicked on it. It then brought up a screen which allowed me to select the tables which I wanted to add in. I then added all my three tables. The next screen allowed creating relationships between

To create the form had to select the option 'Create form using Wizard. This then opened up a new window 'Form Window'. I then choose the table that I wanted and then the fields that I wished to add. In the picture below I am creating the 'Frm_Films'. I added all the fields to do this I pressed the ">>" button. This allowed me to insert all the fields into my form, so that I could later input and edit data concerning these fields.
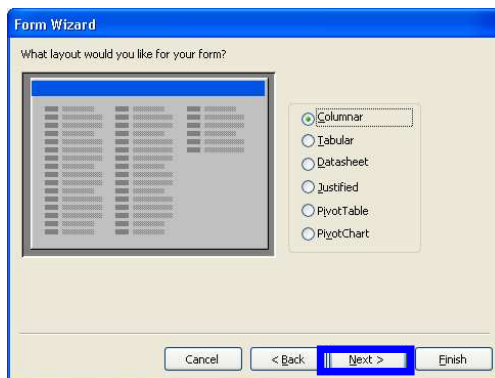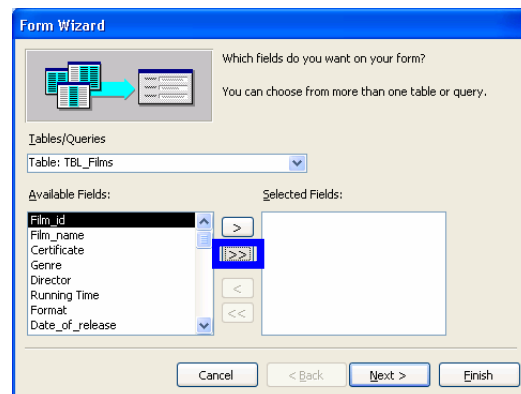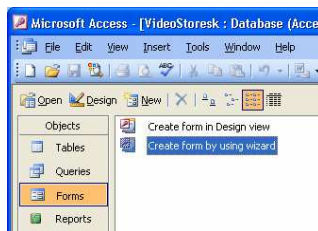
In this screen I choice the layout of my table. I selected the columnar as it appeared more professional and appealing.
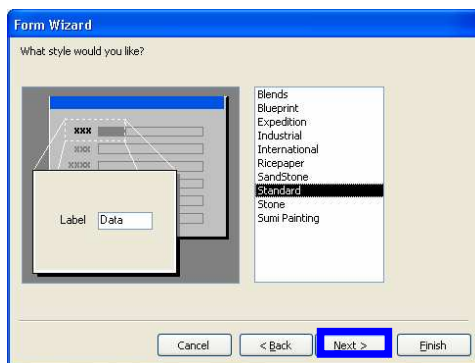
 The next screen allowed me to select the background that I wanted to use. Their was a variety to choose from. Instead I selected the plain one 'standard'. I chose standard because allowed me to start my design from scratch and I was able to put whatever I wished onto it. After I selected the 'Next' button.
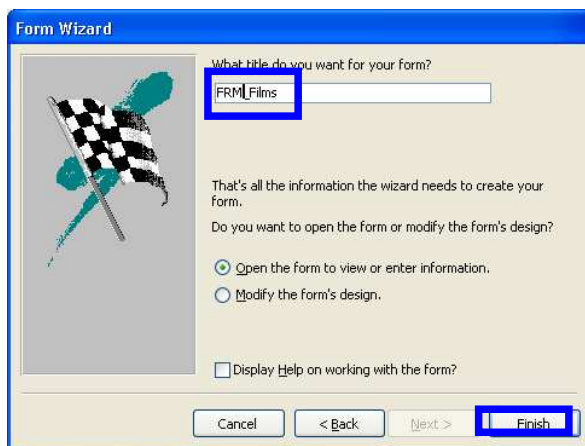
Lastly, before I went onto entering any data I had to chose a name for the form, I called his one 'FRM_Films' then I clicked on finish. When creating all the other forms I went through the same process.
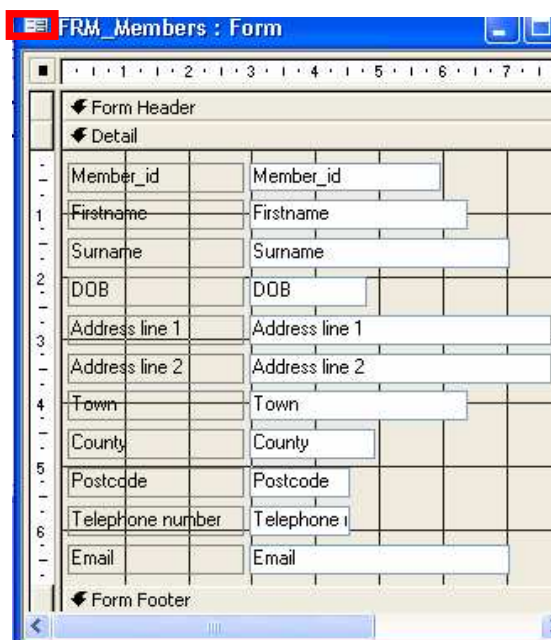
After completing all of the steps by the form wizard. The screen above shows the first look at my form having not made any changes. The tab in the red box shows that it is set to design mode, the design mode enables me to edit the look of the forms to add to the aesthetics and professionalism. Having already created my form designs by hand it was easy for me to simply copy them onto the computer. The first thing that I decided to do was to create remove the form header and the form footer, centre the data and customize my own title.
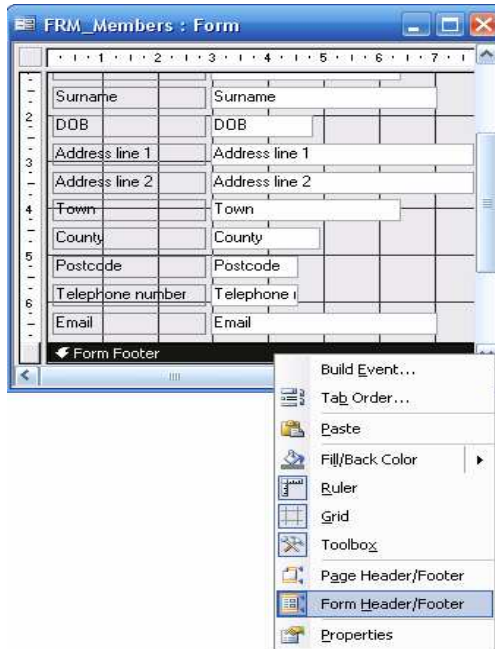
To remove them I right clicked the Form footer and scrolled down to 'Form Header/Footer', I clicked it removing the header and footer from my form as shown in the screen below.

Implementation
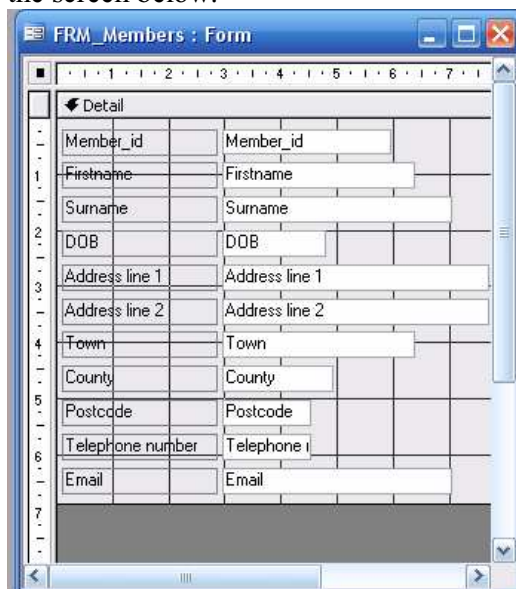
This then produced the form that you can see above then I was later able to go and make any additional changes that I thought was needed. The next change that I made was to change the background colour from plain to black. because I had decided to uses a black and turquoise colour scheme which would also fit in with the logo which is of the same colours also if I had two diverse colours it would allow things to stand out more. Apart from black and turquoise the only other colour which may e used is white to border text and images. To do this I right clicked the background and scrolled down to 'Fill/Black colour' then I selected the colour black..
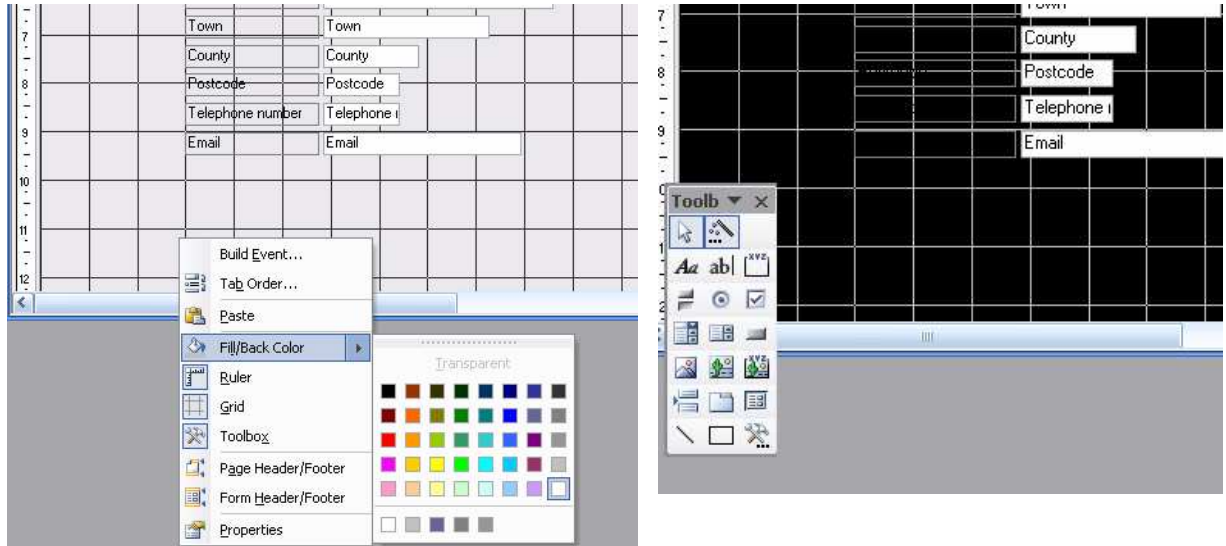
After changing the background the text was no longer visible and to also go with the colour scheme I had decided to use I had o change it. T o do this I highlighted the tex t boxes and labels, right clicked selected 'Font/Fore color' then I selected turquoise. There is a screen shot to show how I did this below.

<u>Implementation</u>
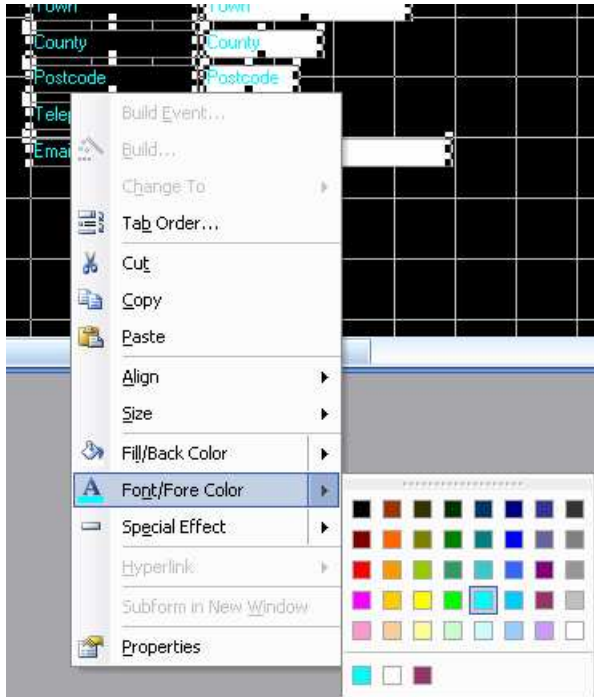
I was satisfied with the text on the right hand column because it wasn't clear enough for reading and since the colour scheme for the forms are black and turquoise I filled in the boxes black
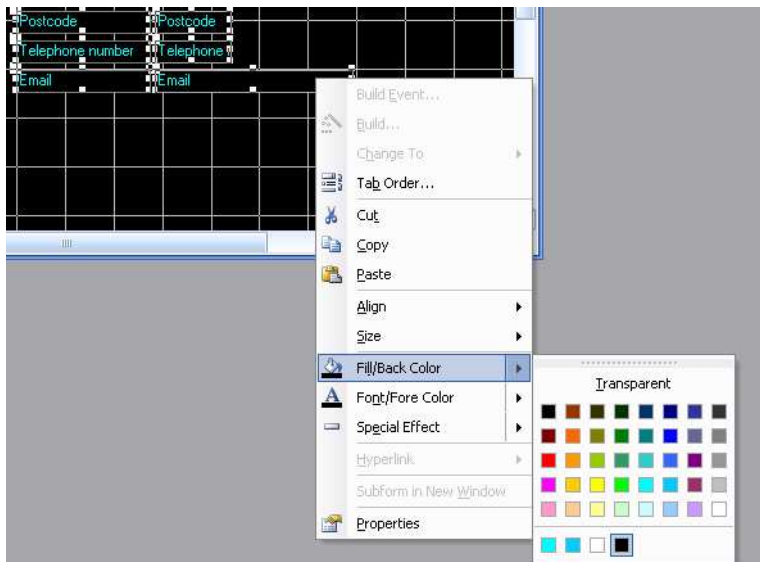
Adding a title and logo
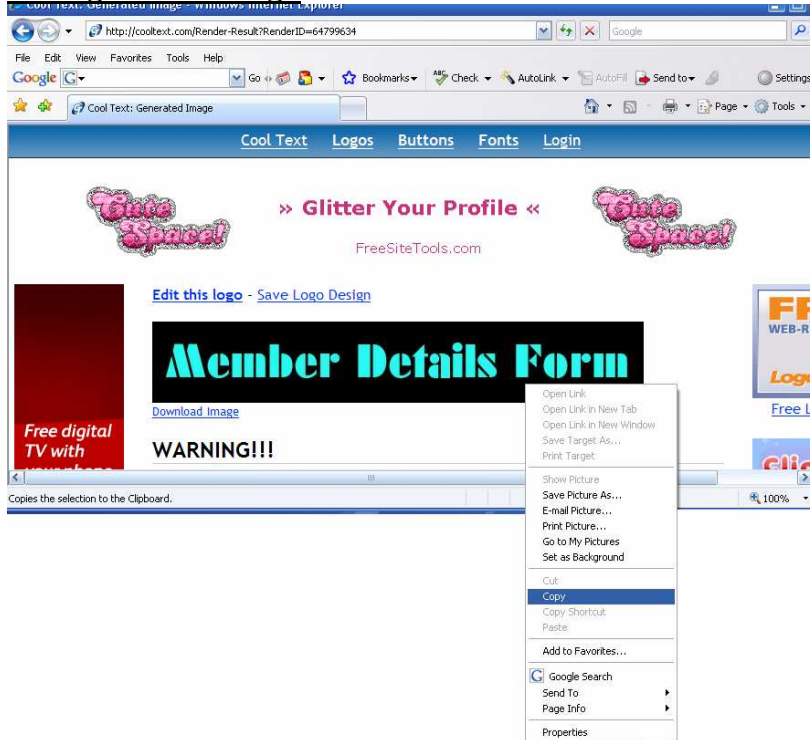
The next thing my forms needed was a title and logo. I chose to create them on a website 'www.cooltext.com'. After the creating the title shown above I write clicked the image then selected 'copy'. After I opened up my form, write clicked then selected 'paste' to input the image into my form.

Before   **After**

Implementation
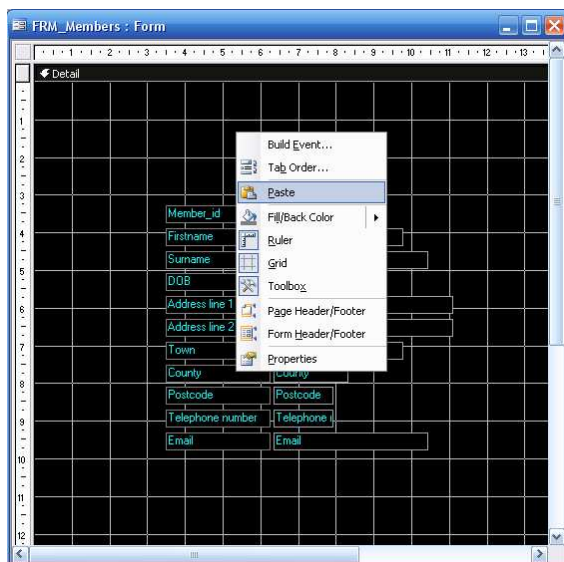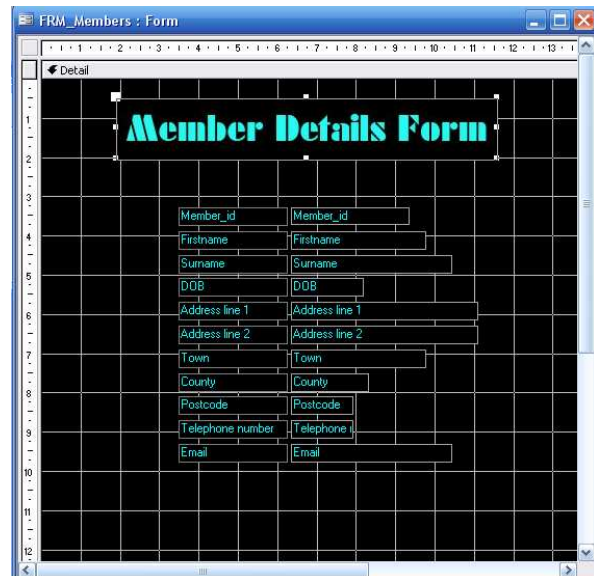
The other thing my forms needed were the company's logo's. The were also created using 'www.cooltext.com'. I used the same method to copy the image from the site and pasting it into my form but instead of pasting it once I pasted it four times.

Before   **After**

After looking at the logo and title I notice that since they were of similar colour that to make the title clearer and stand out more that a white border should be added around it

To create a white border around the title all I did was highlight the image, select one of the dots then drag it diagonally. This had to be done both left and write. The later image is shown below.

Implementation

This screenshot shows my title after I put a border on it to make it sharper to the user.

When looking at my form in 'form view' I noticed tat the text borders were rather pale, and thin making it unnoticeable and was rather unprofessional. To improve this I decided to turn them white, adding brightness and because of the white and black go together. Also I decide to make it the lines thicker increasing notice ability and to add a special effect onto them to enhance the aesthetic appearance. To be able to make these changes I had to switch from 'form view' to 'design view; which was done by clicking the icon displayed on the toolbox. After switching back to 'Design View' I highlighted the textboxes, right clicked and selected 'Properties'

.
To change the special effect I put my cursor in the textbox where it was currently under 'Flat' other effects where then listed before me of which I chose 'Shadowed' as

shown above. At the moment you can see the border colour is et to '0' meaning nothing I changed it by clicking the tab next to it; a selection of colours came up I selected white. The colour was then changed as the number did as shown above. Finally I changed the border width by clicking in the box next to 'border width' where it width was set to 'Hairline'; different widths were then displayed I chose '2pt' as in the pictures above. The picture below shows my form in 'form view' after making the changes.

Combo boxes

I decided to include a Combo box in my form. Since the user required a quick way to search the database a Combo box would enable this to happen. I decided to create a Combo Box to allow 'All members' search, and then selected 'Combo Box' from the toolbar, shown below.

The dialogue box below was displayed to me. The first would enable the user to change certain values in the record based on other queries or tables, the second option would allow the user to search by typing a specific field value, and the last option changes all the data that the form is showing based on a record from the table that the form is assigned to. Since the last would allow me to search through and select certain records form my members table I decided this was the best for me to use. I selected this one, shown below. I then clicked the 'next' button.

Solomon Ajewole 10A   **Implementation**

I pressed the 'Next' button
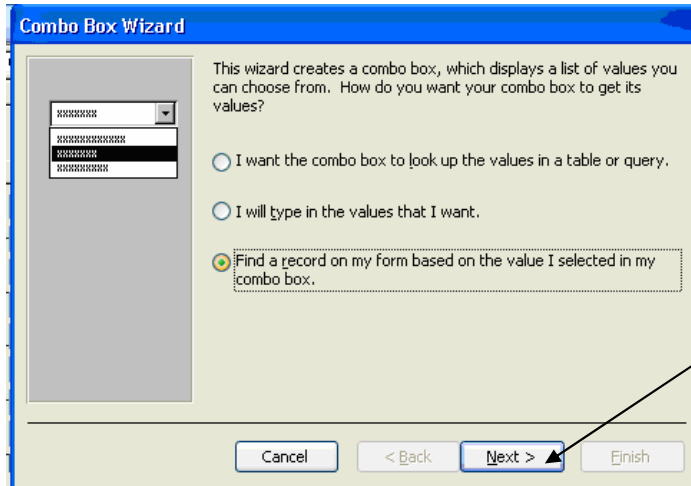
The following dialogue box allowed me to choose what fields I wanted visible in the Combo Box for the user to choose from. I chose the Firstname and Surname for a few reasons. Firstly, I didn't choose the member_id because even though it is unique it is the same as the number of the record in the record selector, and so if the user knew the member_id he or she wouldn't use the Combo Box to find the record anyway. I also used Firstname and Surname because these details are listed on the membership card or could even dictated by the member at the counter, so this information would always be known and could be used to search fro the appropriate record.

I clicked on the single arrow to include just the firstname and surname in the Combo Box; the double arrow would move everything to the 'Selected Fields' column.

The following dialogue allowed me adjust the width of the tables that the Combo Box would show, but since the names fitted into these columns I didn't make any changes and moved onto the next dialogue box
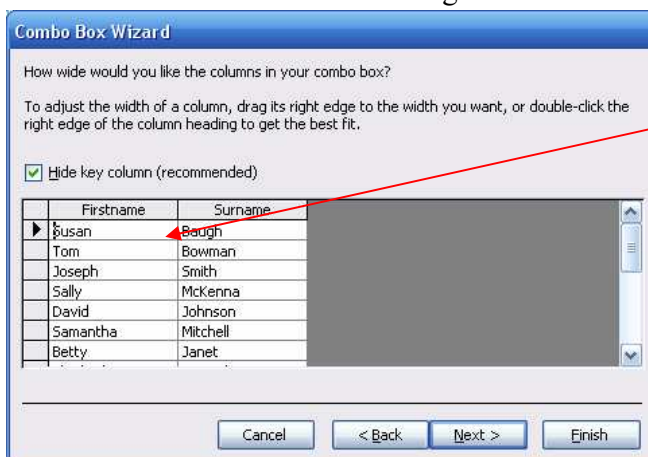
I resized the columns by clicking between the lines and dragging across.

I then gave the Combo Box the appropriate name of 'Search Members', as this shows tells the user the function of the Combo box and. I then clicked 'Finish' to create the Combo Box.

The finished Combo box was now inserted into the form and is shown I the next screenshot. A label was automatically created next to the Combo box in which the name I had given it was displayed. However it wasn't visible as the background and text were both black. I used the same method as I used before to change: the text to green, add special effect to label and Combo box and fill the Combo box black.

The screenshot below shows the view of the Combo box after editing and repositioning.
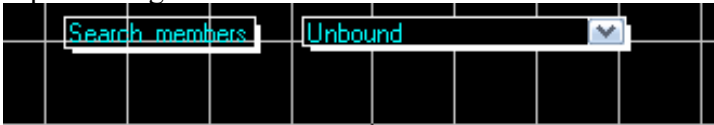
The following screenshot shows the Combo box opened and shows how quickly data can be selected form a list that is easily accessible.

The scroll bar allows many records to be viewed

Another way to create a Combo box was to turn an ordinary 'text box' into a Combo box the data for the Combo box would be retrieved via a query or table. I decided to use this method to create combo boxes for the 'Town' and 'County' field. I am now going to go through the stages of how I managed to achieve this.
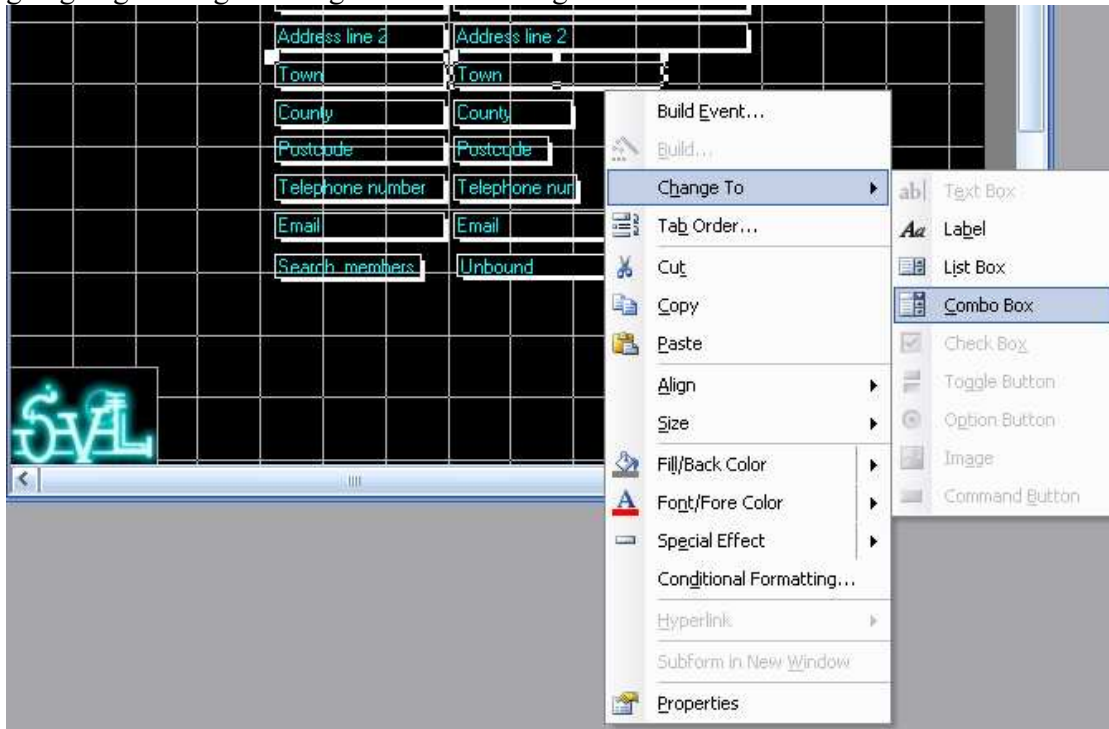
In order to do this I went into 'design view' of the Member form and highlighted the text box in I wanted and right clicked. A drop down then appeared, I scrolled down to 'Changed To' after another lit appeared in which I selected 'Combo Box'. As shown above.

The screenshot above shows that a Combo box has now been entered and has replaced the old text box.

In the next screenshot it shows me going into form view to test the combo box but as you can see when I pressed the tab there was no data there. This was because there was no current data source. To correct this I went back into 'design view' right clicked on the combo box and this time I selected properties.

Solomon Ajewole 10A   **Implementation**
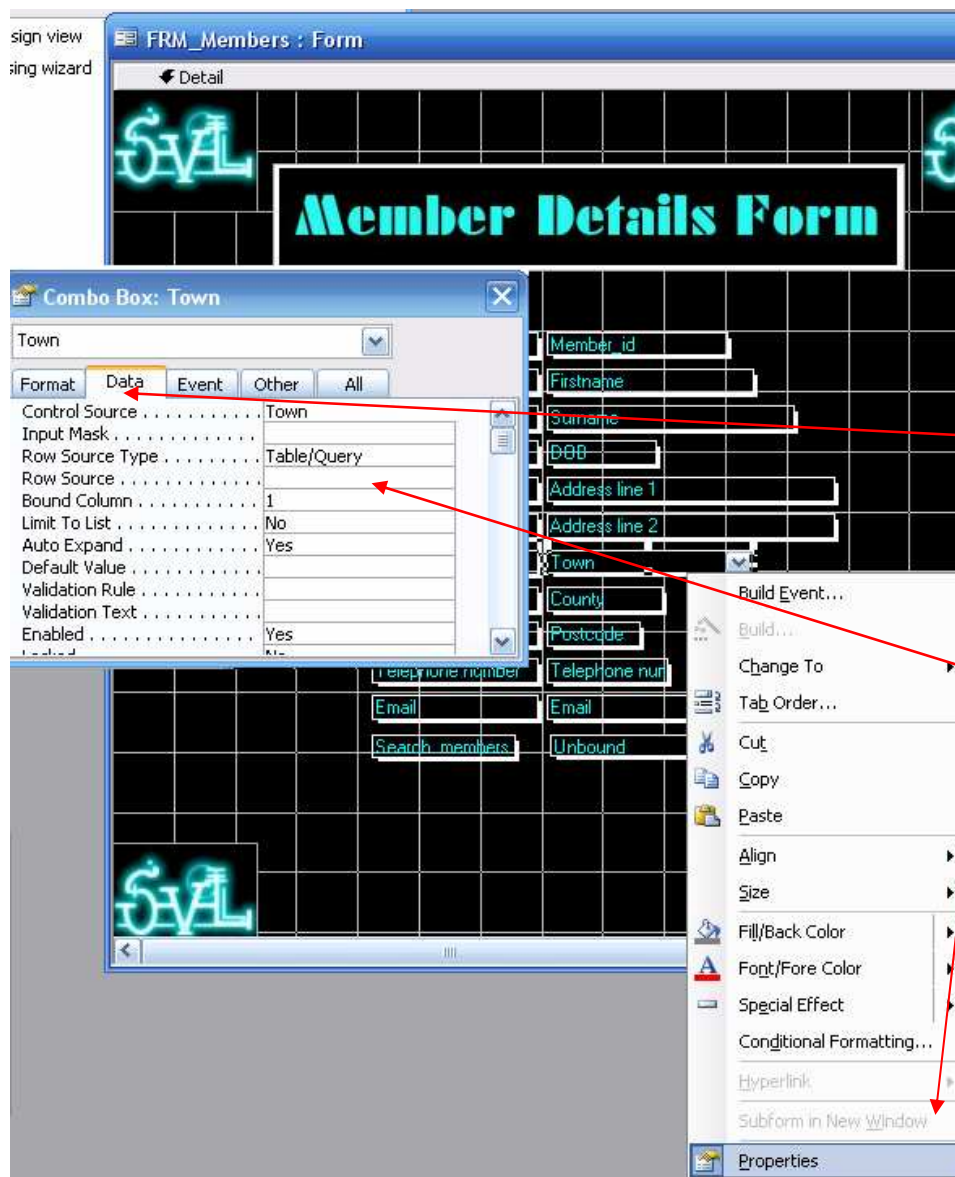
I scrolled down and selected 'properties'

'Properties screen was displayed before me'. I selected the 'Data' tab.

As you can see under 'Row Source' there currently isn't anything which means there is no data source.
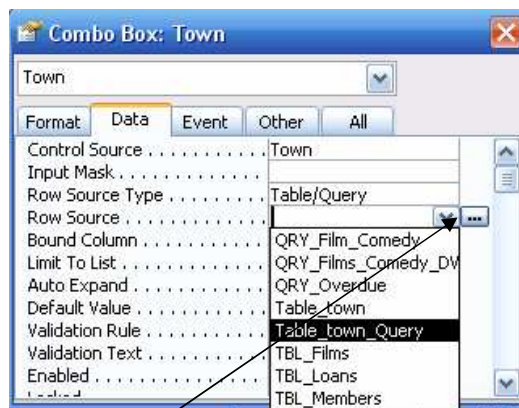
I clicked on the combo box and selected the query in which the data I wanted to include in forms my combo box was stored.
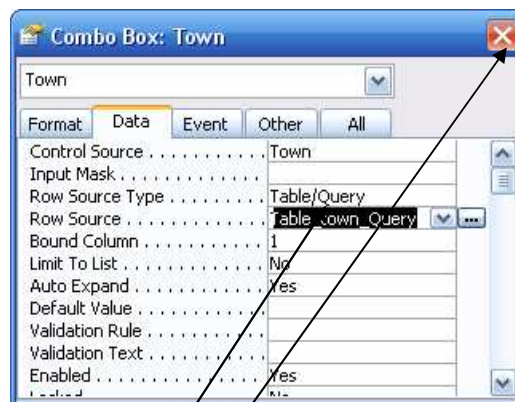
The query I selected was now displayed I then press the exit button

After doing this I saved my form then went back to 'Form view' to see if my combo box was fully functioning as there was now a data source. As shown below.

Command Buttons

The final thing I needed to add to my form was command buttons, As the user required a system that was quick and forms that were easily accessible I feel that command buttons would help. With commands button the user would be able to click on buttons to immediately change between records and forms, save record after being edited, exits forms and the application and many other functions. I am now going to explain how I included Command buttons into my forms also using screenshots.

This screenshot shows the current view of my form before entering any command buttons.

From the toolbox, I clicked on 'control wizard' button then on the create new 'Command button'. I drew a box on the screen for the Command button then I followed the wizard through.

The 'Command Button Wizard' opened with various functions to select from. I decided that the first button was going to be was going to allow the user to save the records to do this I went to 'Record Operations' then selected 'Save Record'. As shown below.
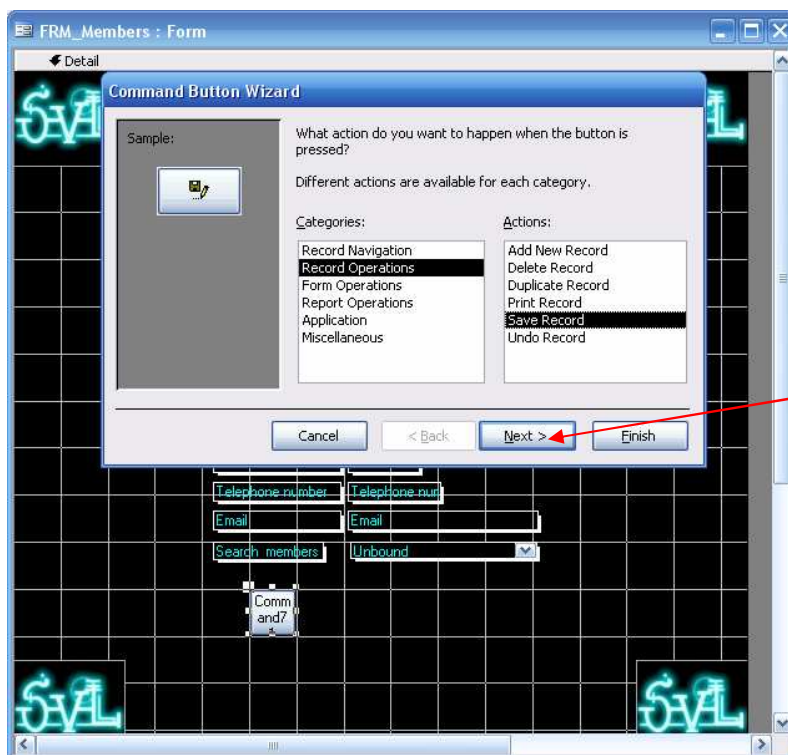
I then selected 'Next' and I was directed to another screen. As shown in the next screenshot.
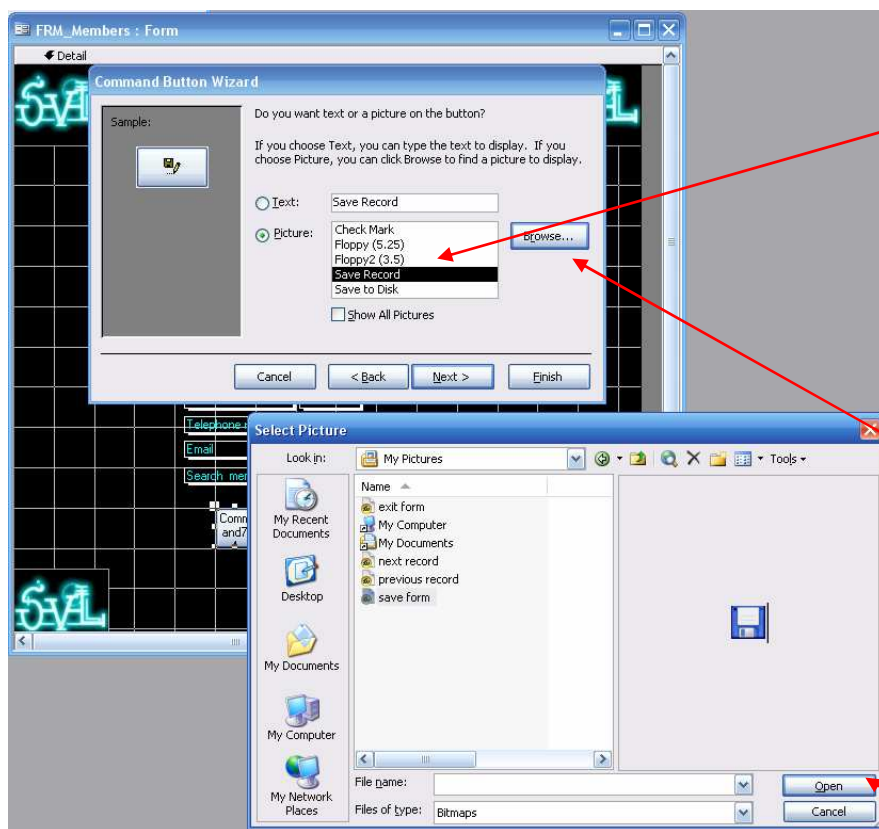
I selected picture to the function. This would allow me to select an image to represent the function of the button for the user.

I didn't find a picture which I wanted to use on the system so I decided to upload one of my own by clicking 'Browse' I looked for I picture which I had stored in 'My Pictures' of a floppy disk. I thought this was very appropriate as this is what is associated with saving work. After selecting the image I clicked 'Open'.

Implementation

My image then displayed under the 'Sample' preview after I clicked 'Finish'. which closed the 'Command Button Wizard' and took me back to my form.

The screenshot below shows my command button inserted and working in my form.

I used the same method to create Command Boxes to do the following functions:
Take user to previous record,
next record,
close form,
open film form,
open loans form,
and close the application.

Implementation

Creating Reports

 After I created my forms I had to create a layout which would allow would be able to be understood by the user if printed; I created reports based on the data in my queries and tables. This will enable me to specify a legible layout for the information which I have previously entered, in order to gain a physical copy. A customer would be able to request a report of their outstanding films.
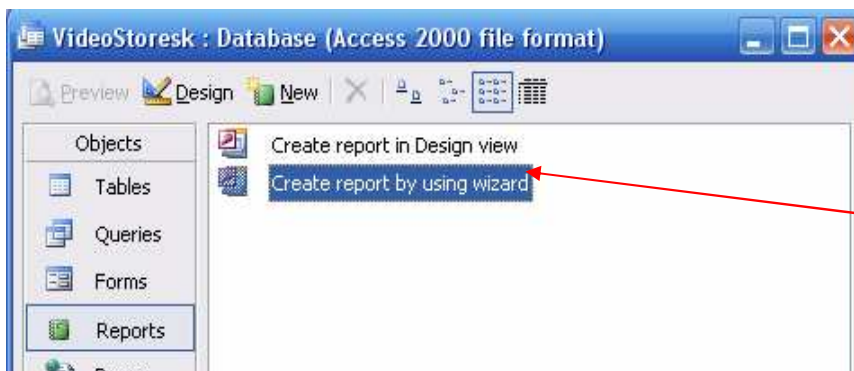
I went to the man menu and clicked on' Create report by using wizard'
Then a new screen opened as shown below
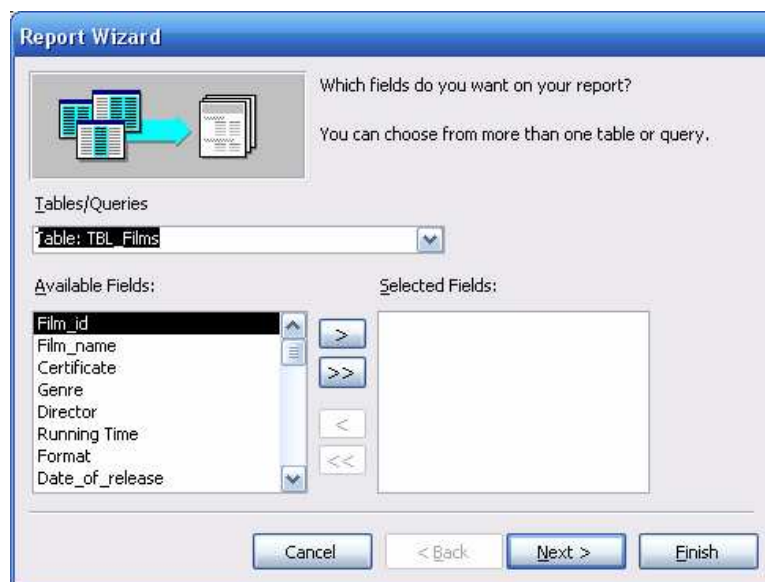
I firstly specified which table to base the report on; in this case I chose my Film table. I selected all of the fields to be present by clicking on
      . This moved them all across to the 'Selected Fields' column   . I pressed 'Next' and was presented with the screen below, which would allow me to group the data into categories.

I chose to group according to if it was rented or not. This would allow the user to see the films taken and the films left available as the rented films would be together and so would the films that were not. After I clicked on 'Next' to move to the next screen shown below.

This next dialogue box allowed me to sort the order in which the data in my report was to be presented. I decided I didn't need order them so progressed to the next stage by clicking 'Next'.

I was then shown this dialogue box which allowed me to choose the layout of my report fields and records; I chose the tabular because it was the easiest because it would be in the form of a table and this was the user requirements. For the orientation I chose landscape.

Implementation
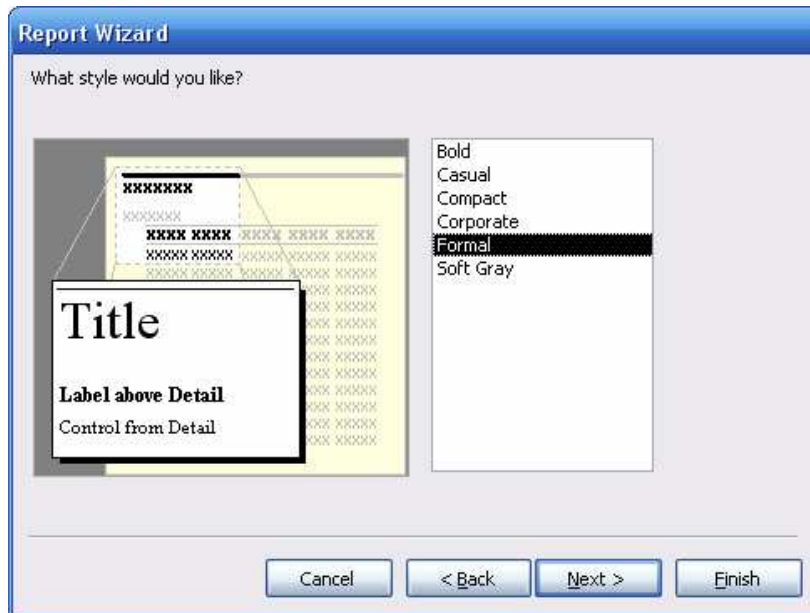
After clicking 'Next' I was presented with this dialogue box. I wanted to the keep the style simple and the writing to be clear so I chose formal and the clicked. 'Next'

Finally, I had to name the report. I called it 'Films_Report' then I clicked 'preview he report' so I could view how it would appear to the users. I then clicked on 'Finish' to take me to the report view.

A screenshot of the Films_Report is shown below. As you can see there are titles and words that are overlapping. I will amend it by going into the design view and using the same techniques that I used for the forms.

TBL_Films

RentedFilm_id		Film_nam	Certifica	Gen	Director	Running Ti	For	ate_of_release
Yes								
	8	Jump in	U	Action	Paul Hoen	85 min	DVD	12/01/2007
	6	Mean Girls	15	Action	Mark Waters	97 min	DVD	30/04/2004
	5	Daddy Day Care	PG	Comed	Steve Carr	92 min	DVD	12/05/2003
No								
	16	Die Hard	15	Action	Haile Berry	140 min	Video	02/12/1999
	15	High School Musi	U	Musica	Steven Hawkins	89 min	DVD	02/09/2006
	14	Hellboy	15	Action	Chris Murray	99 min	DVD	01/01/2006
	12	Scary Movie 3	15	Comed	David Zucker	84 min	DVD	24/10/2003
	11	Scary Movie 2	15	Comed	Keenen Wayans	83 min	DVD	26/08/2001
	10	Scary Movie	15	Comed	Keenen Wayans	88 min	DVD	07/07/2000

Parts of the text and the titles are not showing and overlapping which could cause confusion to the user.

In the next screenshot I have resized the columns and titles so that all that needs to be seen is shown and can be viewed by the user.

TBL_Films

Rented	Film_id	Film_name	Certificate	Genre	Director	Running Tim	Format	Date_of_release
Yes								
	8	Jump in	U	Action	Paul Hoen	85 min	DVD	12/01/2007
	6	Mean Girls	15	Action	Mark Waters	97 min	DVD	30/04/2004
	5	Daddy Day Care	PG	Comedy	Steve Carr	92 min	DVD	12/05/2003
No								
	16	Die Hard	15	Action	Haile Berry	140 min	Video	02/12/1999
	15	High School Musica	U	Musical	Steven Hawkins	89 min	DVD	02/09/2006
	14	Hellboy	15	Action	Chris Murray	99 min	DVD	01/01/2006
	12	Scary Movie 3	15	Comedy	David Zucker	84 min	DVD	24/10/2003
	11	Scary Movie 2	15	Comedy	Keenen Wayans	83 min	DVD	26/08/2001
	10	Scary Movie	15	Comedy	Keenen Wayans	88 min	DVD	07/07/2000
	9	White Chicks	15	Comedy	Keenen Wayans	109 min	DVD	23/06/2004
	7	Parent Trap	U	Comedy	Nancy Meyers	127 min	Video	27/08/1998

I then went back into preview to look for any other problems, then I noticed the title of the report was 'TBL_Films' to avoid any misunderstanding I went back into the design view and changed the title to that of the report 'Films_Report' then I saved report.

As shown in the screenshot below

Films_Report

Rented	Film_id	Film_name	Certificate	Genre	Director	Running Tim	Format	Date_of_release
Yes								
	8	Jump in	U	Action	Paul Hoen	85 min	DVD	12/01/2007
	6	Mean Girls	15	Action	Mark Waters	97 min	DVD	30/04/2004
	5	Daddy Day Care	PG	Comedy	Steve Carr	92 min	DVD	12/05/2003
No								
	16	Die Hard	15	Action	Haile Berry	140 min	Video	02/12/1999
	15	High School Musica	U	Musical	Steven Hawkins	89 min	DVD	02/09/2006
	14	Hellboy	15	Action	Chris Murray	99 min	DVD	01/01/2006
	12	Scary Movie 3	15	Comedy	David Zucker	84 min	DVD	24/10/2003

 After correcting all the problems that I had with my report I went back into the design view and changed the title to the one that was specially made and I added in the company logo as stated in my design for the reports. The final report is shown below.

Rented	Film_id	Film_name	Certificate	Genre	Director	Running Tim	Format	Date_of_release
Yes								
	16	Die Hard	15	Action	Haile Berry	140 min	Video	02/12/1999
	14	Hellboy	15	Action	Chris Murray	99 min	DVD	01/01/2006
	8	Jump in	U	Action	Paul Hoen	85 min	DVD	12/01/2007
	7	Parent Trap	U	Comedy	Nancy Meyers	127 min	Video	27/08/1998
	6	Mean Girls	15	Action	Mark Waters	97 min	DVD	30/04/2004
	5	Daddy Day	PG	Comedy	Steve Carr	92 min	DVD	12/05/2007
No								
	15	High School	U	Musical	Steven Hawkins	89 min	DVD	02/09/2006
	12	Scary Movie	15	Comedy	David Zucker	84 min	DVD	24/10/2003
	11	Scary Movie	15	Comedy	Keenen Wayans	83 min	DVD	26/08/2001
	10	Scary Movie	15	Comedy	Keenen Wayans	88 min	DVD	07/07/2000

15 December 2007   Page 1 of 2

The report differs a little from what I originally had planned but has the main features which I wanted to include. I differs as there are more than two columns when I initially stated two. It has more because I chose to sort the data by whether it was rented or not which separated the films that were rented by those that were not rented.

Creating a Query

After I was now able to add data into my database I needed a way to data easily and very quickly. In the analysis I noted that the user required to search through members, videos and loan details at a speedy rate. To be able to achieve this I needed to use a query; which is one of the reasons I chose the Microsoft Access application. The Query is in the form of the table and allows it users to filter through certain fields by inputting the appropriate criteria; this would display the required records on the main view.
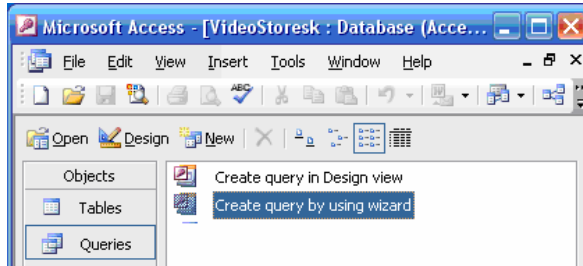
To create the query I went to the main database window, clicked the query tab, then 'Create query by using wizard' the following dialogue box was then shown.

The wizard enabled me to select the fields I wanted from their tables. The purpose of this particular query was to enable the users to sort through the film table this is why I chose 'Film_table' and I selected all the fields in the table I by clicking the '>>' moving them from 'available fields' to 'selected fields'. I then clicked 'Next'.
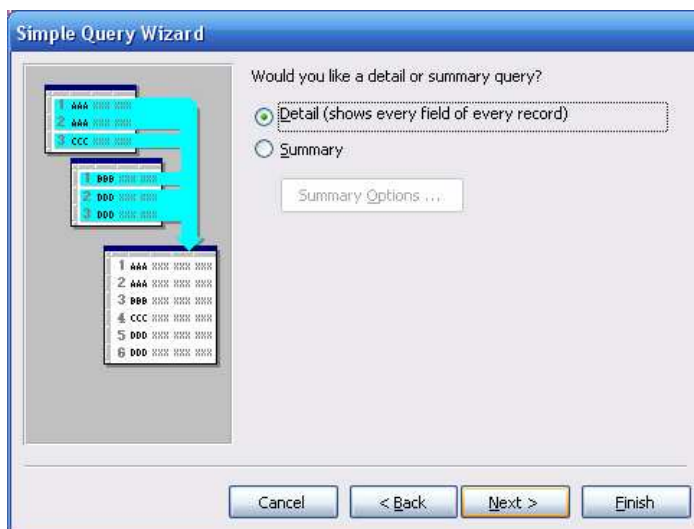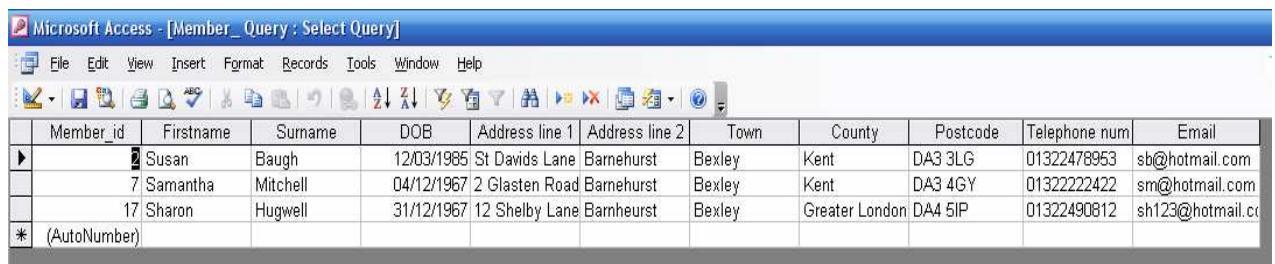
The next dialogue box asked me if I wanted all the records or instead a summary of them however this wouldn't work because not all the data was able to be quantified; I selected 'Detail (shows every field of every record)' after I selected 'Next'. This brought up the next dialogue box.

In the next dialogue box I was allowed to name the query I name it 'Film_Query' this would explain to the user that it is the query which is associated with the records within the Film table. For me to view the query I clicked 'Open the query to view information' I then clicked 'Finish' to take me to the view of the query.

The screen shot above shows the main view of all the Film table records. The reason all the records have been displayed is that a filter has not yet been applied. To add a filter I had to go back into the design view and the screenshot below shows the screen that was shown.

In the screenshot above it shows how filters can be applied to the different fields. In the 'Criteria' row only data that is contained within that field in the record should be entered. I wanted the query to show only the films that were rented. I entered 'Yes' into the Criteria row under the field 'Rented' this would display to me only the records have the value of 'Yes' or a 'Tick'. I then went back into the main view and I was shown only the film records that were rented. This is shown in the following screenshot.

Film_id	Film_name	Certificate	Genre	Director	Running Time	Format	Date_of_release	Rented
5	Daddy Day Car	PG	Comedy	Steve Carr	92 min	DVD	12/05/2003	☑
6	Mean Girls	15	Action	Mark Waters	97 min	DVD	30/04/2004	☑
8	Jump in	U	Action	Paul Hoen	85 min	DVD	12/01/2007	☑
16	Die Hard	15	Action	Haile Berry	140 min	Video	02/12/1999	☑
(AutoNumber)								☐

I also created a query for the member table; this is shown in the next screen shot. I made the query to only show the members who lived in 'Bexley' using the same filter

Member_id	Firstname	Surname	DOB	Address line 1	Address line 2	Town	County	Postcode	Telephone num	Email
2	Susan	Baugh	12/03/1985	St Davids Lane	Barnehurst	Bexley	Kent	DA3 3LG	01322478953	sb@hotmail.com
7	Samantha	Mitchell	04/12/1967	2 Glasten Road	Barnehurst	Bexley	Kent	DA3 4GY	01322222422	sm@hotmail.com
17	Sharon	Hugwell	31/12/1967	12 Shelby Lane	Barnheurst	Bexley	Greater London	DA4 5IP	01322490812	sh123@hotmail.co
(AutoNumber)										

technique as before.

I then created a query to show overdue items that would automatically be updated by the computer as specified by the user. To do this I created a query as usual but this included all of the tables and all of the fields in these. The screenshot below shows the query in design view. The relationships of the tables are shown at the top of the screen.

After I created a query that was to show the overdue films this would be updated by the system every time the query is been accessed. In order to accomplish this I created a normal query however I included all the fields from all tables. In the screenshot below all the relationships between the tables are displayed on top of the screen.
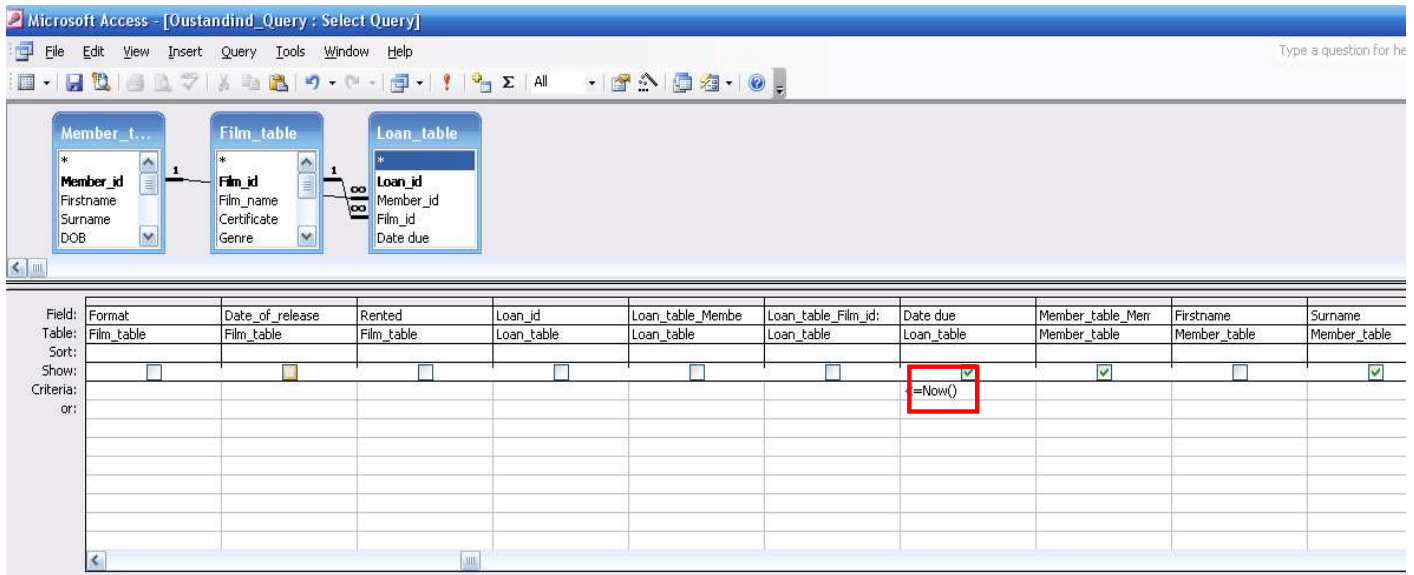
If an item was overdue then it date due should be before the current date this is why I typed in '<=Now()' into the 'Criteria' box underneath the date due field. This function would display the current data; by putting the less-than symbol in front would show the records of the films that were due back before the current date making the loan overdue. I unselected most of the boxes regarding the fields in the 'Show' row this was because they weren't all needed to be shown. This includes fields such as 'Genre' and 'Email address' too many things would be confusing for users that would be new to this sort of system.

The screenshot below shows the query in the main view. It displays the members whose loans are overdue. In this particular screenshot there are two members with overdue films.

Mail Merge

Now that I had a report and query of the overdue loans the user needed an easy way to send out automatically typed notification letters to multiple members. In order to do this I needed a good word processor. I chose to use Microsoft Word and its Mail merge function this was included with the software that was bought with the computer. Its mail merge function would automatically take data from a Microsoft Access query or table and insert it where needed on a typed letter.

Shown below is a mock up of the layout and structure of the overdue loans mail merge.

<div align="right">

\<First name\> \<Surname\>
\<Address line 1\>
\<Address line 2\>
\<Town\>
\<County\>
\<Postcode\>

</div>

Dear \<First name\> \<Surname\> Membership no: \<member_id\>,

I am writing to inform you that you currently have loaned a film(s) name from 'Sols Video Library'. This film(s) is overdue which means you have failed to reach our deal, and failure apply with our contract would result in an automatic fine starting from the date it was due back. There would be a £1 fine plus an extra £0.35 per film for every other day the film is in your custody. It is advisable to return the film or films as soon as possible to minimise the fine payable.

Loan Details

Film name	Date due
\<Film_name\>	\<Date_due\>

We would like to thank you for your loyalty and continued membership of 'Sol Video Library' we hope that you return your item soon and this situation can be avoided in the future.

Yours sincerely,

Mr. Solomon Ajewole
CEO Sol Video Library

To mail merge the letter I first copied and pasted the mock up into a Microsoft Word document as shown below.
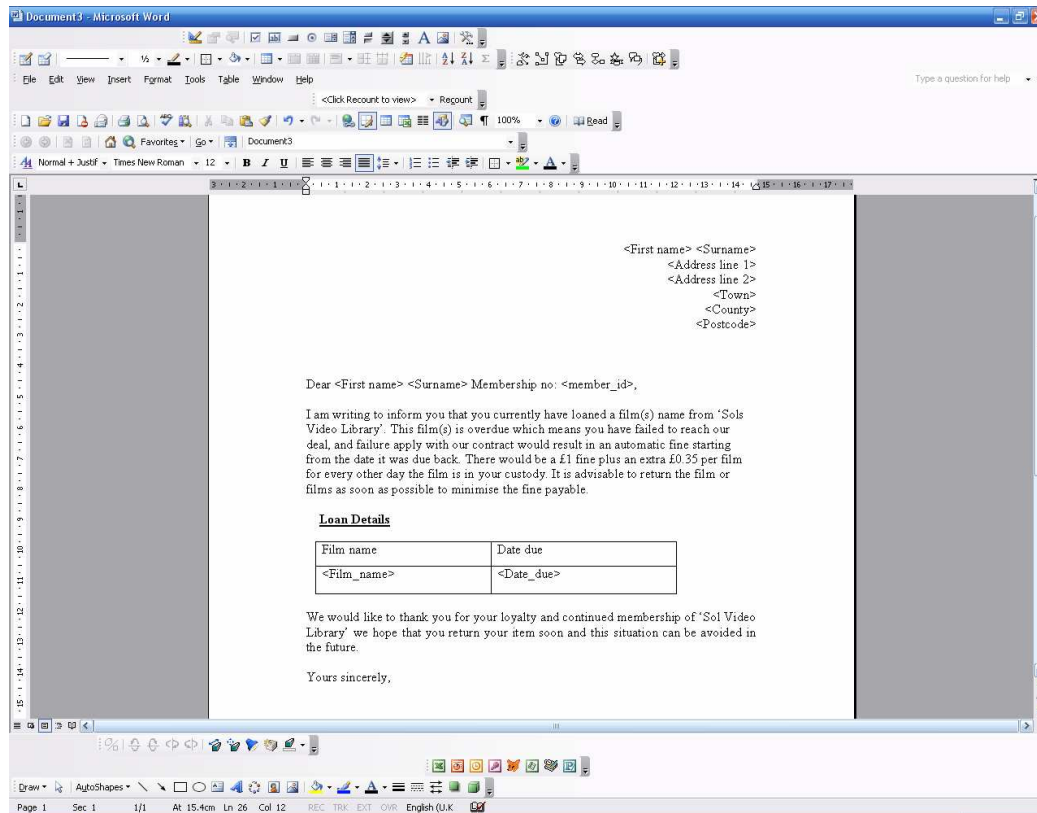
I went to the tools and opened up the toolbar for the mail merges as shown below. I clicked 'Open Data Source'. By selecting this it would enable me to retrieve the fields and necessary data from my database.
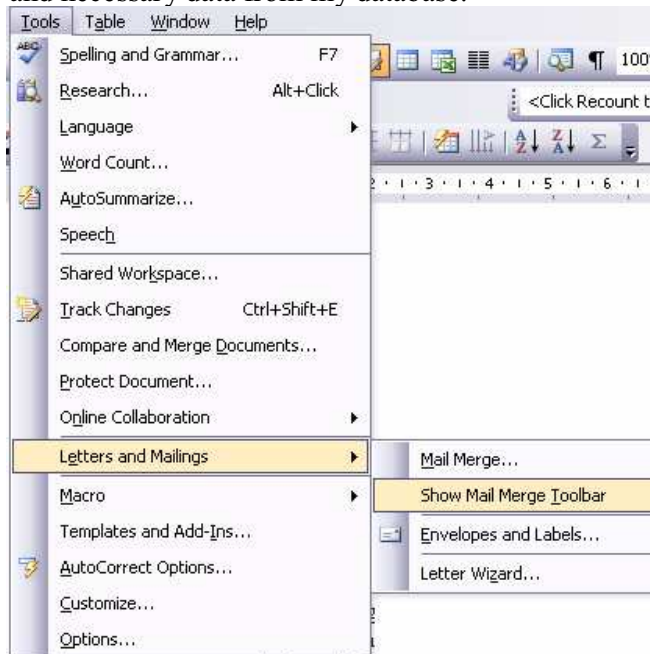
After click 'Show Mail Merge Toolbar' the toolbar appeared in the main screen of Microsoft Word.

II then had to click on the 'Open Data Source' button to allow me to select the database in which I wanted the records to be taken from. After clicking it I was displayed with the dialogue box below.

Select Data Source

Look in: C2 IT

My Recent Documents

Desktop

My Documents

My Computer

My Network Places

VideoStoresk

File name:

Files of type: All Data Sources

New Source...   Open   Cancel
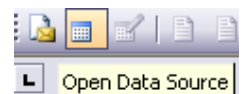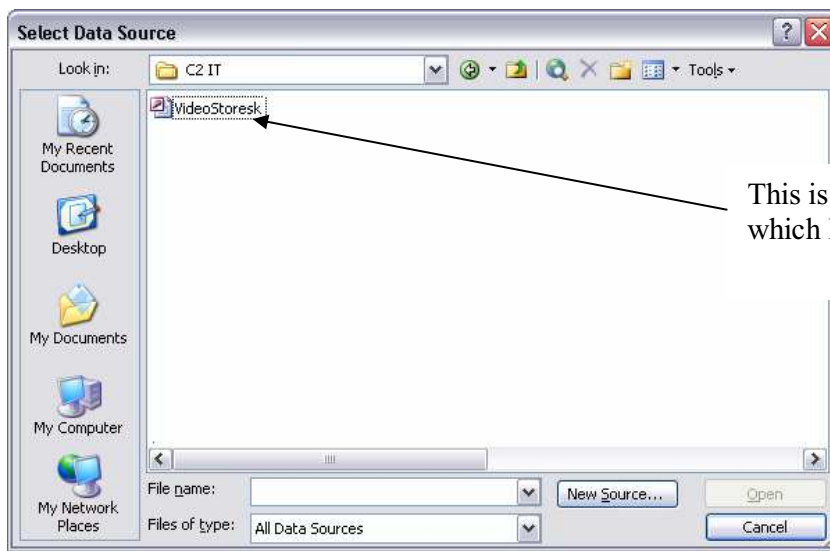
This is my database file which I selected

I clicked on my database to open it view all the tables and queries within it. After I pressed 'Open' and the next dialogue box opened before me.

Select Table

Name	Description	Modified	Created	Typ
Film_Query		11/2/2007 7:38:25 AM	6/22/2007 12:33:16 PM	VIEV
Films_Rented_Query		10/2/2007 9:19:18 AM	10/2/2007 9:19:18 AM	VIEV
Loan_Query		10/2/2007 9:26:42 AM	10/2/2007 9:13:33 AM	VIEV
Member_ Query		11/8/2007 6:21:29 PM	11/8/2007 6:19:01 PM	VIEV
Overdue_Query		11/8/2007 9:55:47 PM	11/8/2007 8:03:02 PM	VIEV
Film_table		11/9/2007 2:09:23 PM	5/15/2007 11:50:36 AM	TABL
Loan_table		11/8/2007 7:10:39 PM	5/18/2007 12:31:09 PM	TABL
Member_table		11/11/2007 2:41:05 PM	5/15/2007 11:27:44 AM	TABL

OK   Cancel

The dialogue box listed all the tables contained within my database. I selected the appropriate being 'Overdue_Query' which was the query that contained the records of the overdue films and who had them on loan. To continue I clicked 'OK'.
Now I had the appropriate data needed from my database I had to add the fields that I needed from it.

Insert Merge Field

Insert:
○ Address Fields   ● Database Fields
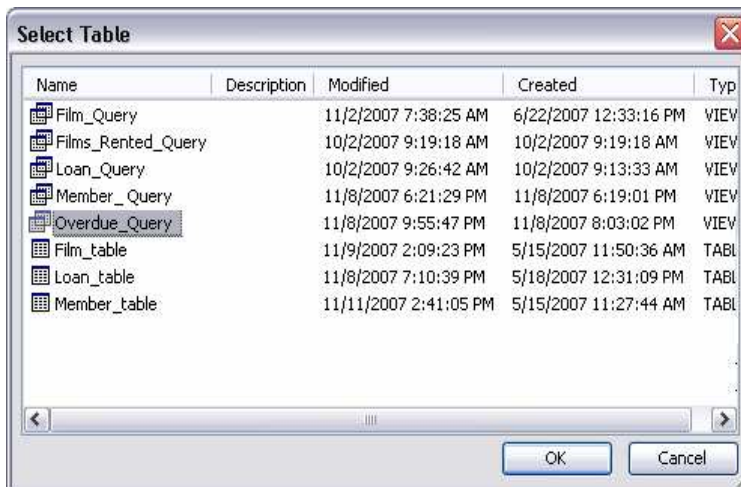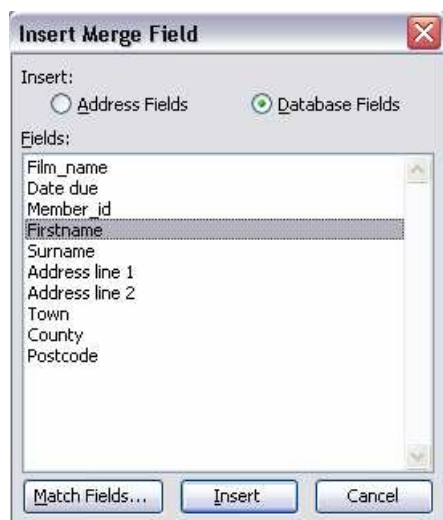
Fields:
Film_name
Date due
Member_id
Firstname
Surname
Address line 1
Address line 2
Town
County
Postcode

Match Fields...   Insert   Cancel

<Firstname> <Surname>
<Address line 1>
<Address line 2>
<Town>
<County>
<Postcode>

lm(s) name from 'Sols
e failed to reach our
tomatic fine starting
an extra £0.35 per film

To load the fields I had to highlight them one by one and use the 'Insert Merge Field' option it would then replace the ordinary text with the correct field chosen automatically an example is shown in the screenshot. The first typed field that I wanted to change was '<Firstname>'. After highlighting it I went to the 'Insert Merge Field' menu which listed all the fields from the query and I selected 'firstname' from the list and

pressed insert.
As shown in the following screenshot the text then changed to be a representation of where the field value would appear.

«Firstname» <Surname>
<Address line 1>
<Address line 2>
<Town>
<County>
<Postcode>

I repeated this process for all of the typed fields. A screenshot of the completed letter without the actual values is shown below.

«Firstname» «Surname»
«Address_line_1»
Address line 2
«Town»
«County»
«Postcode»

Dear «Firstname» «Surname» Membership no: «Member_id»,

I am writing to inform you that you currently have loaned a film(s) name from 'Sols Video Library'. This film(s) is overdue which means you have failed to reach our deal, and failure apply with our contract would result in an automatic fine starting from the date it was due back. There would be a £1 fine plus an extra £0.35 per film for every other day the film is in your custody. It is advisable to return the film or films as soon as possible to minimise the fine payable.

Loan Details

Film name	Date due
«Film_name»	«Date_due»

We would like to thank you for your loyalty and continued membership of 'Sol Video Library' we hope that you return your item soon and this situation can be avoided in the future.

Yours sincerely,

Mr. Solomon Ajewole
CEO Sol Video Library

I then had to view it with a record contained inside instead of a representation of field. To do this I selected 'View Merged Data' this was from the mail merge toolbar as shown below.
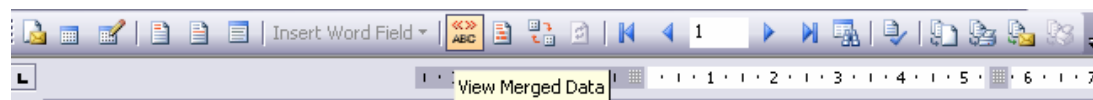
By simply clicking the '<<ABC>>' I was allow to preview the letters with the data inputted into them. I was able to scroll through the records using the record selector in the toolbar.
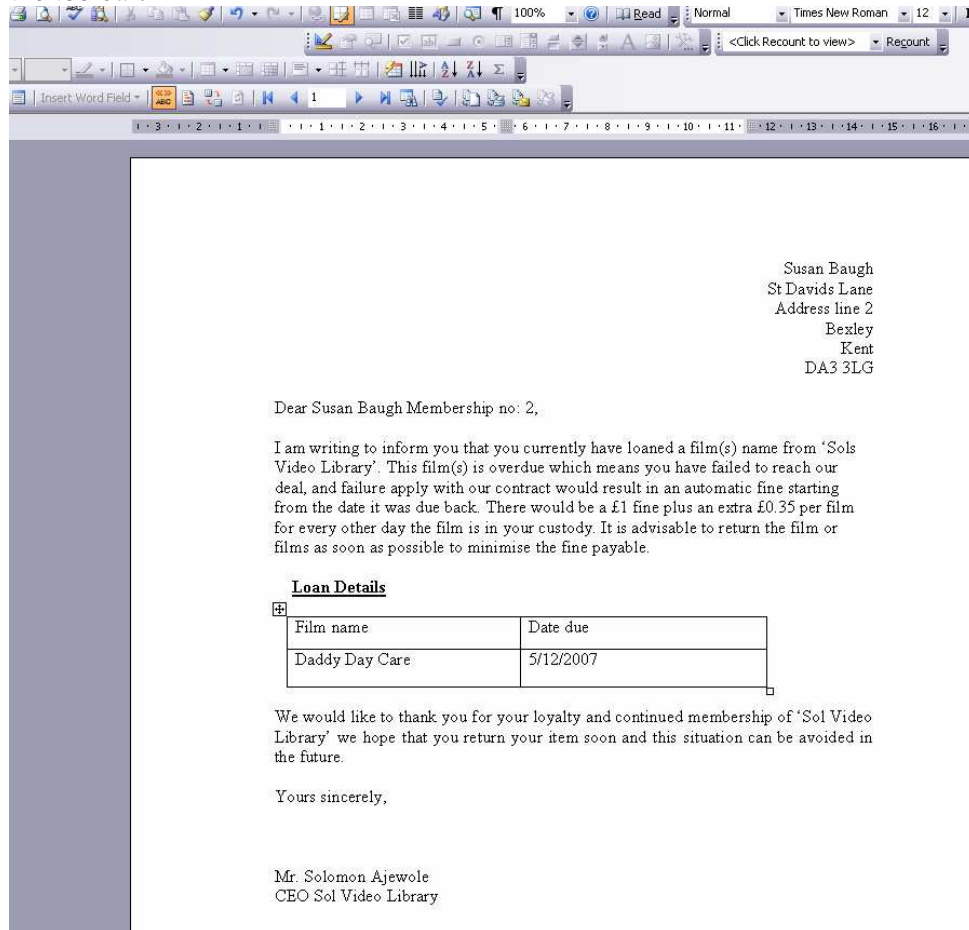
The screenshot above shows the first of the records for the completed mail merge. All the appropriate data has now being entered automatically.

The only thing left to do now was to print off the letters. This was done by pressing the 'Merge to Printer' button on the Mail Merge toolbar, which brought up the following dialogue box.

     Merge to Printer Button in the toolbar
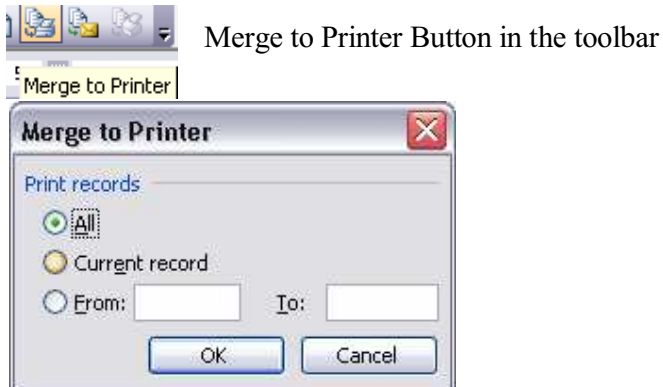
It allowed me to choose whether to print the letters for all records, the current one I was viewing or to print a selection of them.

Importing data into spreadsheet

When I wanted to create charts and graphs I imported data into spreadsheets because the data was very easy to manipulate into a graph. The particular spreadsheet that I used was Microsoft Excel.

To import data into excel I had to do the following. The tables I had in my database were displayed on the main menu. I then single clicked the table which I wished to use labelled 'TBL_Films'. W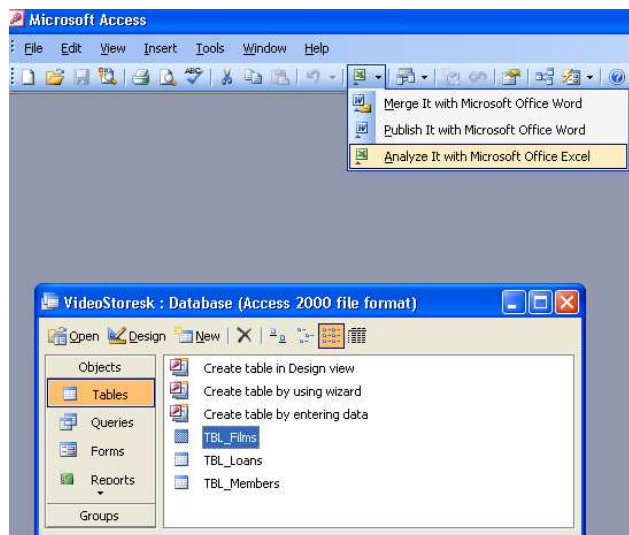ith the table highlighted I then clicked on the arrow next to the 'office links' icon on the tool bar. A drop down was shown with a selection of software applications for the table to be sent to. I selected 'Analyse It with Microsoft Office Excel'. This is shown in the screen shot below.

This caused the Microsoft Excel to open up with the details contained within the table as shown in the screenshot below.

I used the table that had just been entered to create another table that two show the number of films owned according to their genres, one column being 'Genre' and the other' 'Amount Owned'. I had to use a formula to calculate how many of each genre there was automatically and insert it in the table I used 'COUNT IF' this formula count data of a specific criteria in a given range. An example of how I used this formula is shown in the screenshot below.

Implementation

=COUNTIF(D2:D12,C17)			
B	C	D	E
name	Certificate	Genre	Direc
	PG	Comedy	Steve Ca
Girls	15	Action	Mark Wa
Trap	U	Comedy	Nancy M
n	U	Action	Paul Hoe
Chicks	15	Comedy	Wayans
Movie	15	Comedy	Wayans
Movie 2	15	Comedy	Wayans
Movie 3	15	Comedy	David Zu
y	15	Action	Chris Mu
al	U	Musical	Steven H
rd	15	Action	Haile Be

Genre	Amount Owned
Action	=COUNTIF(D2:D12,C17)
Comedy	COUNTIF(**range**, criteria)
Musical	1

Under the 'Amount Owned' column for the 'Action' genre I entered that formula into the table. 'D2:12' represented the range of where it should look and 'C17' being the word 'Action' was the criteria. After I pressed enter to complete the formula it replaced the formula with the correct value. To avoid me typing up the formula again I used the fill box and drag the formula down to the next rows. This automatically entered the appropriate values my completed table is shown below.

Genre	Amount Owned
Action	4
Comedy	5
Musical	1

This table shows all the genres and the amount of them owned by the company that month.

Genre	Amount Owned
Action	4
Comedy	5
Musical	1

To create a graph I highlighted the table then clicked on the chart wizard icon from the toolbar.

The following dialogue box opened allowing me to chose the type of graph that I wanted to create. I wanted to represent my data as a pie chart so I selected 'Pie' than the first type on the left hand side as shown. I was able to get a preview of how it would look like. To do this I clicked 'Press and hold to view sample'. The sample is shown in the screenshot on the next page.

Implementation

Here is a preview of my pie chart I though that I need not do add to it so I simply clicked finish to return to the main view with my completed chart.
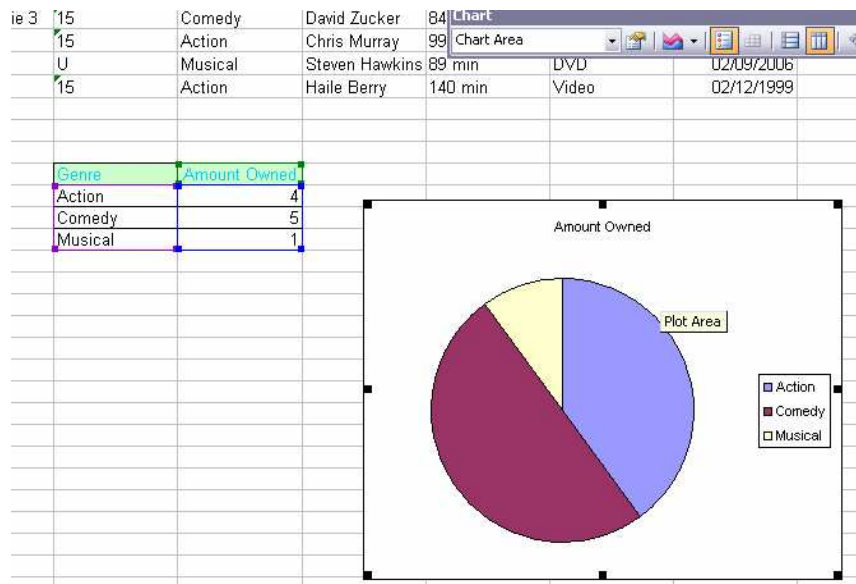
I save the document as 'Most popular genre October 2007' as shown below.

Implementation
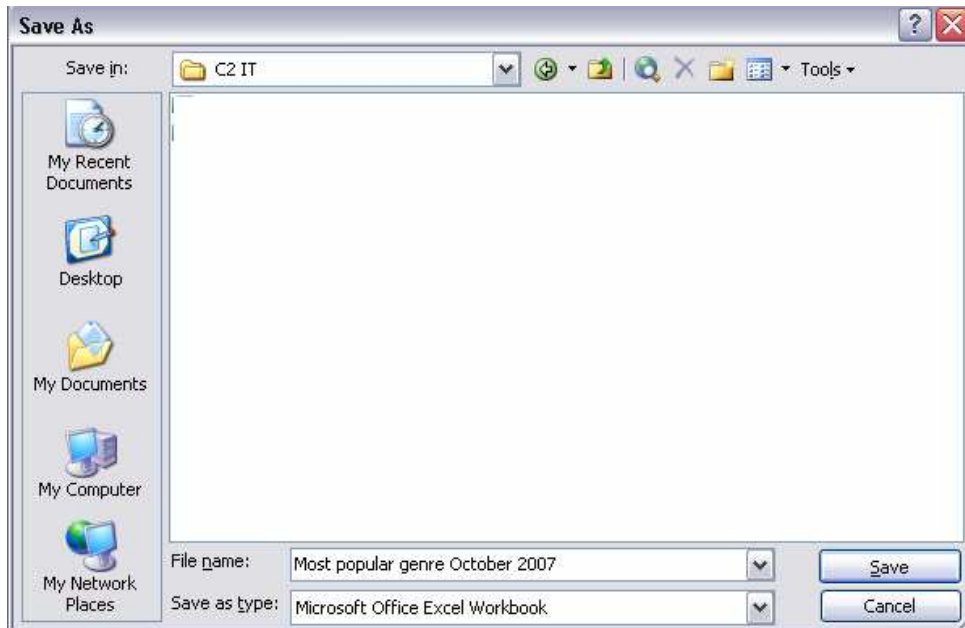
The user can now access the file and analyse the data to see which genre was the most popular in the stock. From the pie chart it is obvious that it is the genre 'Comedy'.

Justify their choice of the range of features and software packages

Microsoft Access

For the creation of my database I chose to use Microsoft Access as I felt that it was the best database application that would and could offer me all that I needed in my specification. It is very simplistic and therefore can be used by inexperienced users. It is much faster than doing the same thing with other software applications or MS-DOS type programs. Access enables relatively quick development because all its tables, queries, forms and reports are stored in the database. The main functions allowing the user quickly and easily enter and modify data through its forms and tables. Another main function enabling a user too quickly sort through data retrieve the appropriate information with a query. With the query the user can select the fields they want returned by selecting them in the grid. The other main feature allowing the user to quickly create, modify or print a report of their choice. Also Microsoft Access allows the user to combine different software packages such importing data into spreadsheets for analysis or to create graphs. It simplicity is very useful because some of the users only have a brief knowledge of computers and they required the system to be easy to use. For all the reasons mentioned above and more I chose to use Microsoft Access.

Microsoft Word
As well as a database application I need a good word processing application to allow the user to type of letters and mail merge them to clients concerning fines, overdue items and other reasons. This I why I chose Microsoft word. it has an easy to use interface and apart from the sourcing data from the database to mail merge the user can simply edit, create, format and save documents.

Implementation

Microsoft Excel

I chose Microsoft Excel because I believed it features best suited the needs of the company. Although it wasn't part of the specification or user requirement. Microsoft excel is a spreadsheet application which can automatically perform numerical task. Using Excel the user is able to easily analyse and manipulate of data using tables and formulas. The data can be exported from the database to Excel to create a graph or for further analyse. For example if the company wanted with Excel they could analyse the most popular genre of film so that they can add more to their store and hopefully generate more money. I also chose Excel it has an easy to use interface that allows the user to carry out complex tasks; this was just what was needed for users with small knowledge of computers.