Data Management 2, Documentation Riaz Khan

by Riaz-Ur Khan

FILE	2966_RIAZ-UR_KHAN_DATA_MANAGEMENT_2__DOCUMENTATION_RIAZ_KHAN_114009_1888449807.DOCX		
TIME SUBMITTED	11-MAY-2018 05:35AM (UTC+0100)	WORD COUNT	1443
SUBMISSION ID	88935680	CHARACTER COUNT	7337

Business Information Technology
Data Management (M5X01029)
Using Application Software to develop business solutions

Lecturer: Beverley Holland
Riaz Khan – P150731

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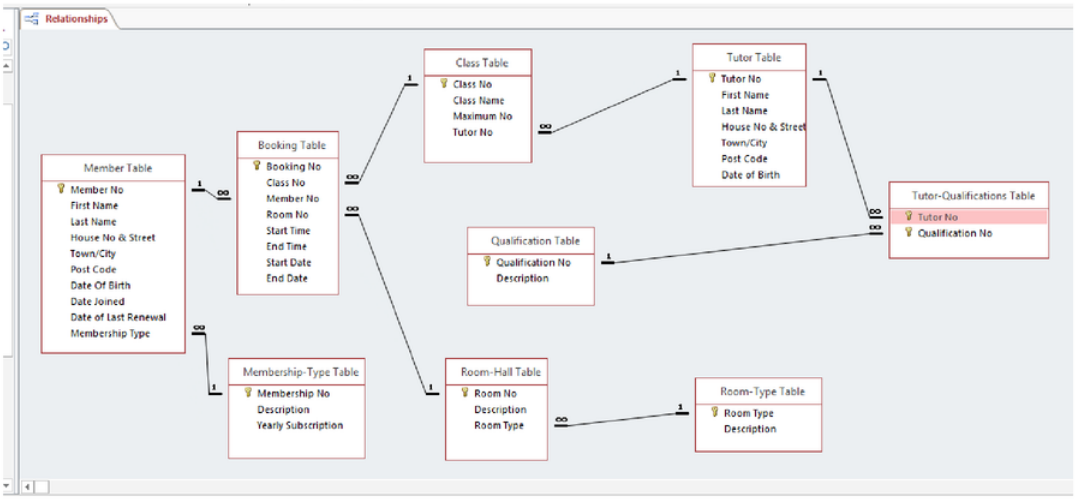
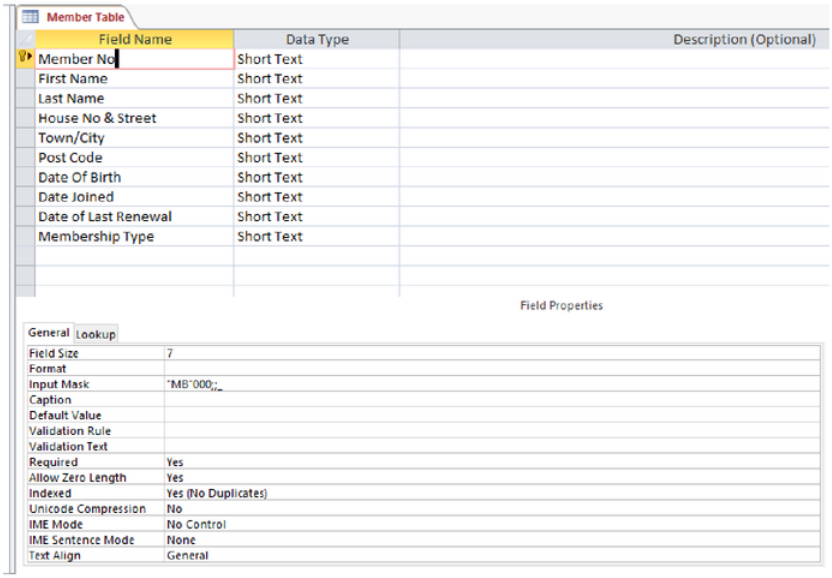
1. Entity Relationship Diagram



These are the relationships between each table that were made in order for the information in the tables to be entered efficiently.

<u>Tables</u>

Member Table:



Member Table

Field Name	Data Type	Description (Optional)
Member No	Short Text	
First Name	Short Text	
Last Name	Short Text	
House No & Street	Short Text	
Town/City	Short Text	
Post Code	Short Text	
Date Of Birth	Short Text	
Date Joined	Short Text	
Date of Last Renewal	Short Text	
Membership Type	Short Text	

Field Properties

General | Lookup

Field Size	7
Format	
Input Mask	"MB"000;;_
Caption	
Default Value	
Validation Rule	
Validation Text	
Required	Yes
Allow Zero Length	Yes
Indexed	Yes (No Duplicates)
Unicode Compression	No
IME Mode	No Control
IME Sentence Mode	None
Text Align	General

The writer created his own input mask for the member number so that each member can be identified easily. An input mask has been created for every other table such as tutor, class, room, qualification etc.

Member Table

Member No	First Name	Last Name	House No & Street	Town/City	Post Code	Date Of Birth	Date Joined	Date of Last Renewal	Membership Type	Clic
MB001	Riaz	Khan	9 Grove Place	Port Talbot	SA13 1EZ	14/04/1998	01/04/2016	01/04/2018	004	
MB002	Jordan	Hughes	67 Maes Ty Cnal	Port Talbot	SA13 8UP	03/02/1998	19/01/2017	19/01/2018	001	
MB003	Rhys	Nordhoff	16 Pentwyn Drive	Port Talbot	SA12 8EF	21/07/1998	04/02/2016	03/02/2018	002	
MB004	David	Romaniw	2 Thornbury Close	Port Talbot	SA12 8EU	19/06/1998	17/06/2015	16/02/2018	001	
MB005	Edgar	Davids	7 Kent Road	Swansea	SA11 9DU	06/08/1972	21/05/2016	08/05/2018	003	
MB006	Lewis	Buckley	146 Margam Rad	Port Talbot	SA12 0OK	07/05/1988	14/04/2014	01/04/2018	001	
MB007	Harry	Corish	11 Dinas Baglan	Port Talbot	SA12 1TH	21/11/1997	12/12/2017		004	
MB008	Matthew	Hooper	2 Sandfields Street	Port Talbot	SA13 1MH	02/02/1998	26/09/2015	23/09/2017	004	
MB009	Kieran	Parsons	45 Bagle Place	Port Talbot	SA12 3PK	29/07/1990	08/05/2016	01/05/2018	003	
MB010	Francesca	Tobin	7 Valley Road	Port Talbot	SA12 4ER	10/12/1986	02/04/2018		002	
MB011	Lucy	Jones	19 Hallow Isle	Port Talbot	SA13 9OP	17/04/1978	17/07/2017		001	
MB012	Amy	Williams	32 Wine Street	Swansea	SA11 8OI	10/09/1977	21/05/2014	20/05/2017	002	
MB013	Michael	Richards	121 City Road	Port Talbot	SA12 2NS	09/03/1976	12/01/2015	06/01/2018	001	
MB014	Mary	Cunningham	10 Grove Street	Port Talbot	SA13 1QU	13/06/1989	09/07/2017		002	
MB015	Alexa	Jones	6 Baglan Road	Port Talbot	SA12 6TG	12/02/1990	12/02/2014	12/02/2018	003	
MB016	Liam	Williams	56 Victoria Street	Swansea	SA11 5CU	15/08/1993	04/12/2015	15/12/2017	002	
MB017	John	Miller	12 Baglan Place	Port Talbot	SA12 8DU	09/12/1978	20/10/2016	23/10/2017	002	
MB018	Michael	Owens	34 Belfrave Post	Port Talbot	SA13 1CV	06/04/1997	01/03/2018		001	
MB019	Harold	Lewis	23 Wellington Street	Swansea	SA11 7SD	29/12/1988	30/01/2015	27/01/2019	001	
MB020	Tobi	Lerone	21 Adlington Street	Port Talbot	SA13 8FN	26/08/1992	16/06/2017		003	
MB021	Arthur	Worrey	17 Tydraw Street	Port Talbot	SA13 1BT	30/10/1977	12/12/2016	12/12/2017	001	
MB022	James	Arthur	42 Growth Street	Port Talbot	SA13 1YU	14/09/1989	18/02/2014	28/02/2018	001	
MB023	John	Doe	33 Tydraw Street	Port Talbot	SA13 1BT	26/09/1999	09/05/2017	01/05/2018	004	

Record: 1 of 24 No Filter Search

The membership type table is linked to the member table, this allows for the membership type to be chosen from a drop-down list rather than typing a number each time.

Membership type table:

Membership-Type Table

Field Name	Data Type	De
Membership No	Short Text	
Description	Short Text	
Yearly Subscription	Currency	

Field Properties

General Lookup

Format	Currency
Decimal Places	Auto
Input Mask	
Caption	
Default Value	0
Validation Rule	
Validation Text	
Required	No
Indexed	No
Text Align	General

The currency format has been selected for the yearly subscription which allows the user to enter a value with a pound sign.

Membership-Type Table

Membership No	Description	Yearly Subscription	Click to Add
MT001	Standard	£149.99	
MT002	Specialised	£184.99	
MT003	All Inclusive	£245.99	
MT004	Student	£119.99	
		£0.00	

The table displays the relevant information and it is clear that a different input mask has been created for the Membership type number.

Qualification Table:

Qualification Table

Qualification No	Description	Click to Add
QL001	Lvl 2 Certificate - Fitness Instructing	
QL002	Lvl 2 Diploma-Health,Fitness,Exercise Instructing	
QL003	Lvl 2 Diploma - Instructing Exercise and Fitness	
QL004	Lvl 3 Diploma - Fitness Instructing and PT	
QL005	Lvl 3 Diploma - Personal Training	

This table has been created to store information about the qualifications that the tutors have.

Room Type table:

Room-Type Table

Room Type	Description	Click to Add
Large	16-20+	
Medium	11-15	
Small	0-10	

This is a very small table which shows basic information about room sizes. As you can see numbers have not been used as the primary key.

Room-Hall table:

Room-Hall Table

Room No	Description	Room Type	Click to Add
RM001	Sports Hall	Large	
RM002	Studio 1	Small	
RM003	Cycling Studio	Medium	
RM004	Studio 2	Medium	

This table has been linked with the Room type table to determine the size of each room.

Tutor Table:

Tutor Table

Field Name	Data Type	Description (Optional)
Tutor No	Short Text	
First Name	Short Text	
Last Name	Short Text	
House No & Street	Short Text	
Town/City	Short Text	
Post Code	Short Text	
Date of Birth	Short Text	

Field Properties

General Lookup

Field Size	10
Format	
Input Mask	>LL00\ 0LL;;
Caption	
Default Value	
Validation Rule	
Validation Text	
Required	No
Allow Zero Length	Yes
Indexed	Yes (Duplicates OK)
Unicode Compression	Yes
IME Mode	No Control
IME Sentence Mode	None
Text Align	General

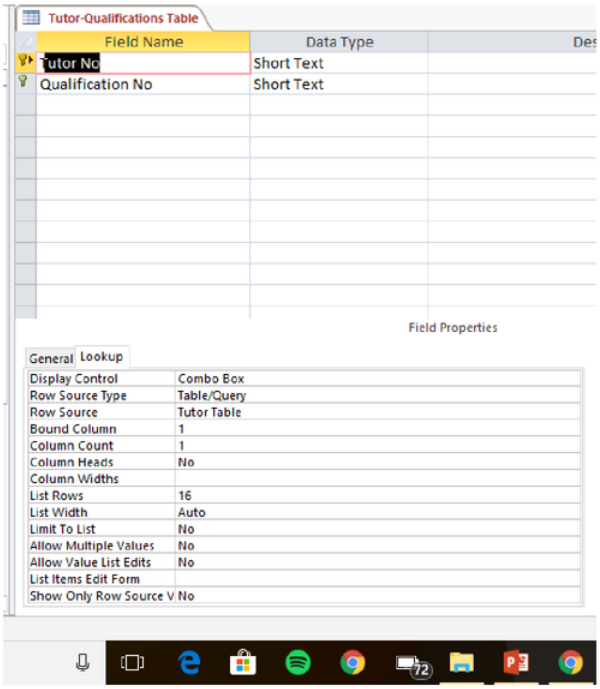
A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.

The image above shows all of the fields created and shows that the filed size and input has been changed so that the post code can be entered correctly.

Tutor Table

Tutor No	First Name	Last Name	House No & Street	Town/City	Post Code	Date of Birth	Click to Add
TU001	Kevin	Walters	21 Rover Street	Port Talbot	SA13 1EZ	14/04/1998	
TU002	Jane	Egan	18 Everton Street	Port Talbot	SA12 7ME	16/06/1985	
TU003	Mark	Bowen	33 Pool Road	Port Talbot	SA13 6MJ	03/04/1989	
TU004	John	Miller	20 Tata Street	Swansea	SA11 1NM	26/09/1994	
TU005	Nick	Hughes	68 Strand Place	Port Talbot	SA13 1HG	12/01/1990	
TU006	Johnny	Evans	56 Cymla Road	Swansea	SA11 5ER	21/12/1987	

Tutor-Qualifications Table:



Tutor-Qualifications Table

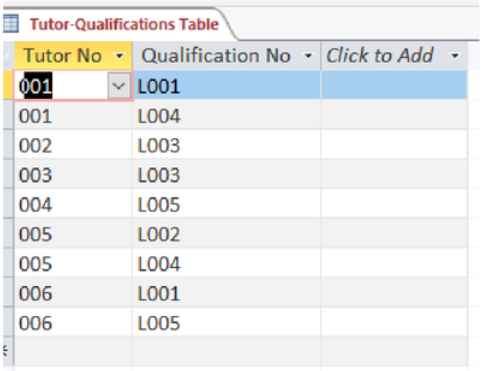
Field Name	Data Type	Des
Tutor No	Short Text	
Qualification No	Short Text	

Field Properties

General | Lookup

Display Control	Combo Box
Row Source Type	Table/Query
Row Source	Tutor Table
Bound Column	1
Column Count	1
Column Heads	No
Column Widths	
List Rows	16
List Width	Auto
Limit To List	No
Allow Multiple Values	No
Allow Value List Edits	No
List Items Edit Form	
Show Only Row Source V	No

The Tutor and Qualifications table has been linked together using the lookup function.



Tutor-Qualifications Table

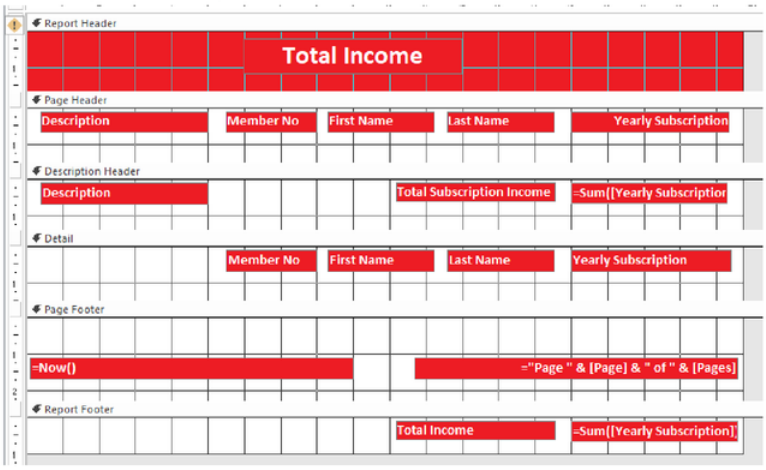
Tutor No	Qualification No	Click to Add
001	L001	
001	L004	
002	L003	
003	L003	
004	L005	
005	L002	
005	L004	
006	L001	
006	L005	

As seen in the ER Diagram, the Tutor Qualifications table has a one-to-many relationship with the tutor table and the qualifications table. The allows the user to assign many qualifications to one tutor e.g. tutor 001 and 006 have 2 qualifications each.

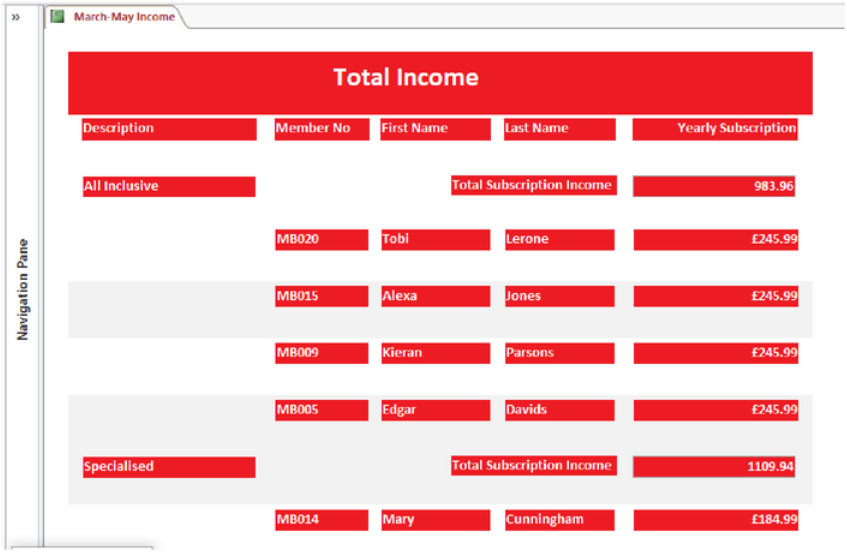
Member-Class Table:

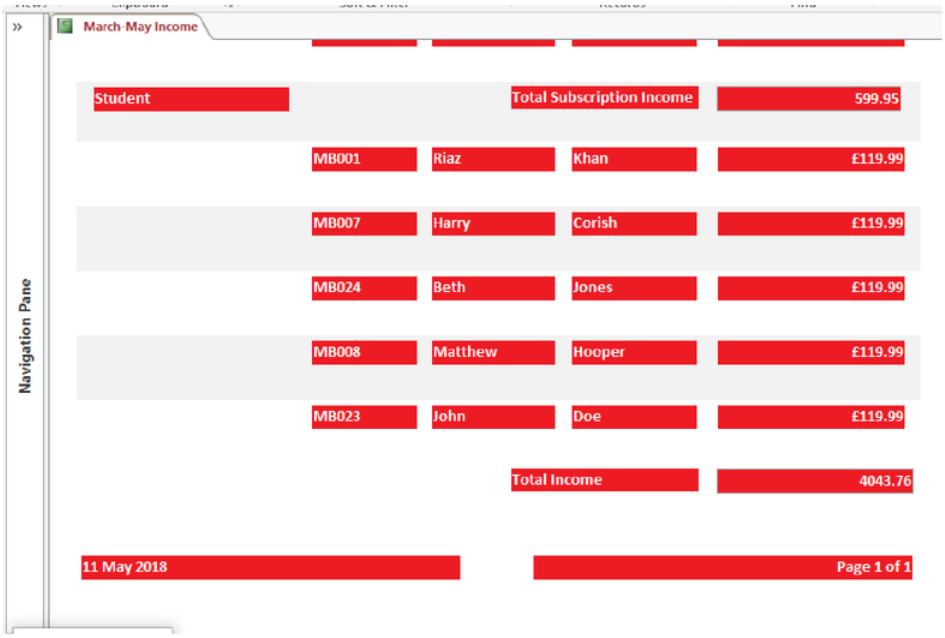
Initially the writer was supposed to create a table for the member-class but has decided to carry out this task by using a query. This will be shown under queries in the documentation.

2. Output of Reports



The writer created a report to show the income made from all of the members. Above is a screenshot of the design view. The data is group by the membership type. After each group a total is given to show how much was made from that membership type. At the bottom of the page a grand total is given for every membership type.





March-May Income

Student			Total Subscription Income	599.95
	MB001	Riaz	Khan	£119.99
	MB007	Harry	Corish	£119.99
	MB024	Beth	Jones	£119.99
	MB008	Matthew	Hooper	£119.99
	MB023	John	Doe	£119.99
			Total Income	4043.76

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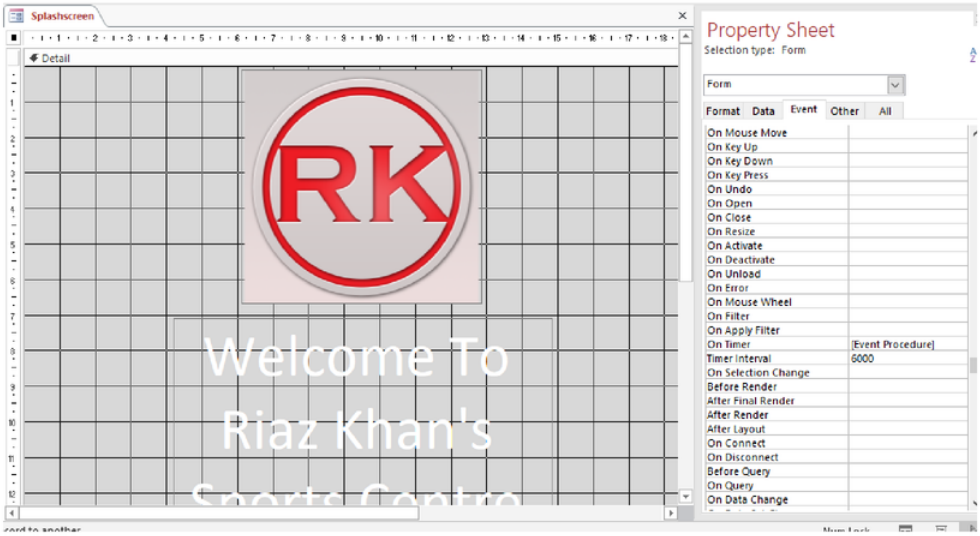
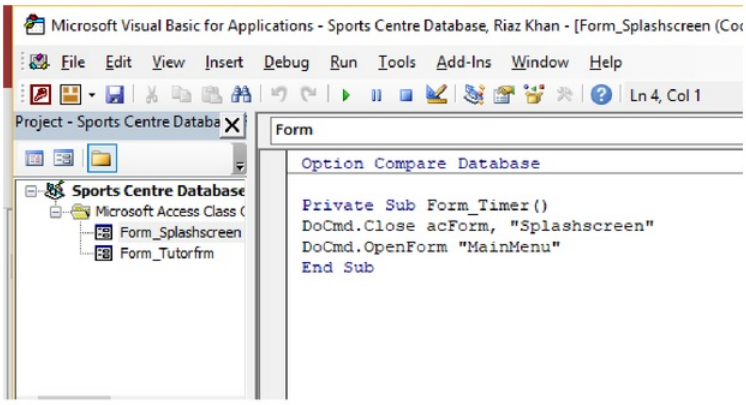
3. Forms

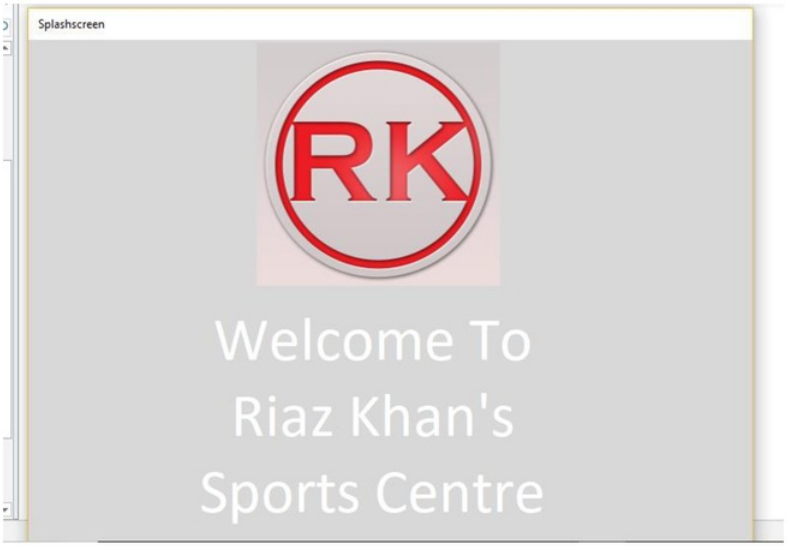
Splash screen:

The writer has created a splash screen that pops up automatically when the database is opened. It stays for a few seconds and then automatically loads to the main menu.





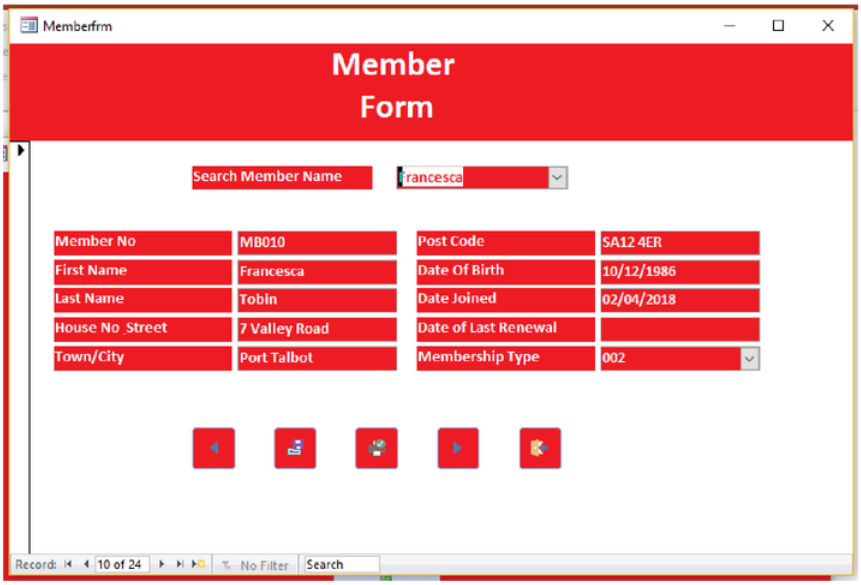
This is carried out by using an Events Procedure code. The screenshots above show that the splash screen is on a timer of 6 seconds.



Main Menu:

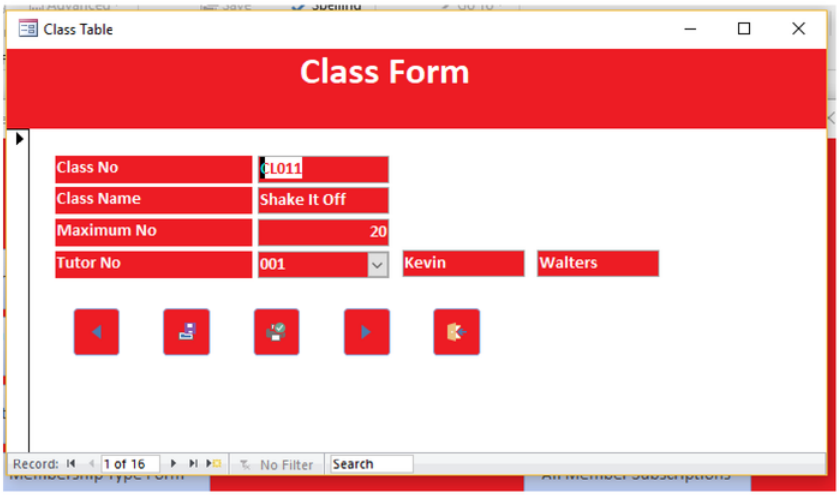
This is the main menu which allows the user to choose from all of the forms and queries created. There is also a close macro for then the user has finished using the database.

Member Form:



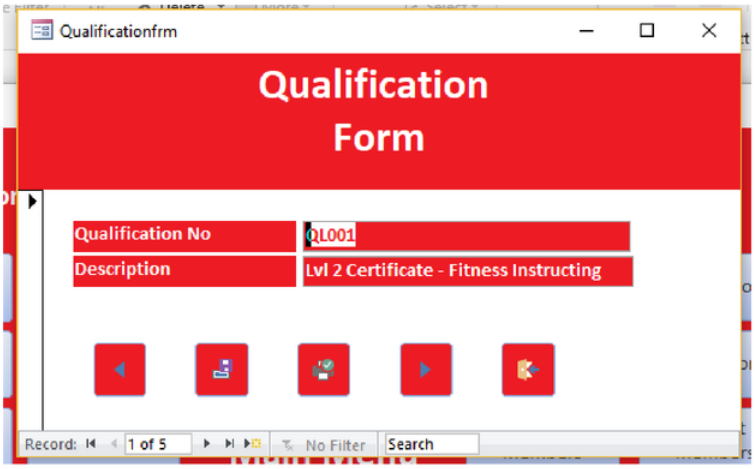
This is the member form. It stores the same information as the member table, but this is an easier way to do so as there are navigation buttons such as previous and next. There are also buttons that allow the user to save and print the current form. It also has a button to hold the form. All of these buttons will be present on each form. At the top of the form there is a combo box which allows the user to select a member and view their information.

Class Form:



The class form which shows the name of the tutor next to their number.

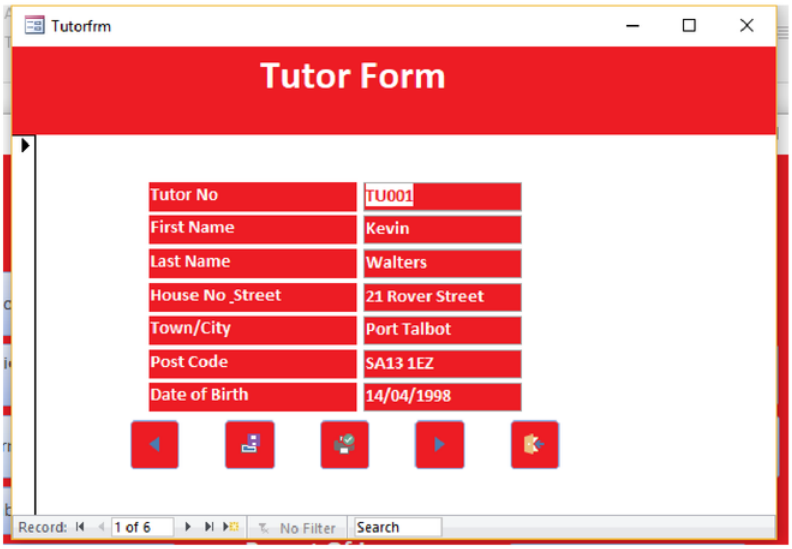
Qualification Form:



Booking Form:

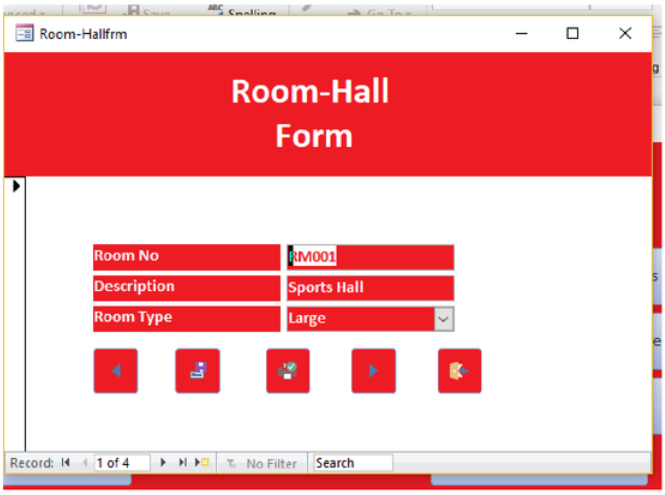
The booking form has a similar lay-out to the class form in that it displays the descriptive information next to the relevant information.

Tutor Form:

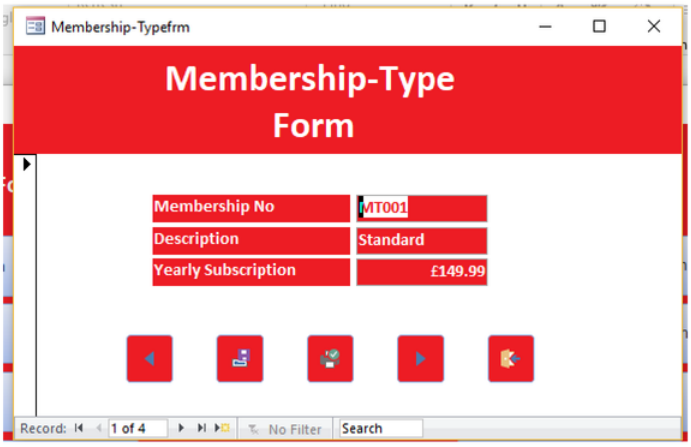


The writer has kept consistent with the house style by sticking to similar layouts with each form, using the same colours, font styles and font sizes.

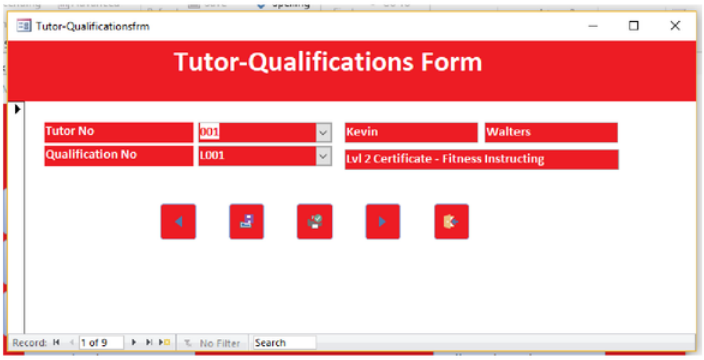
Room – Hall Form:



Membership Type Form:

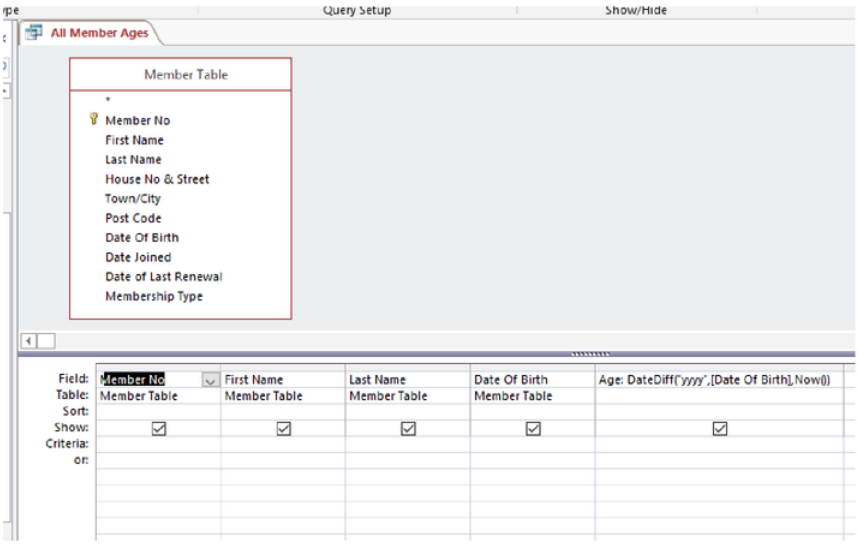


Tutor-Qualifications Form:



4. Queries

All members query:



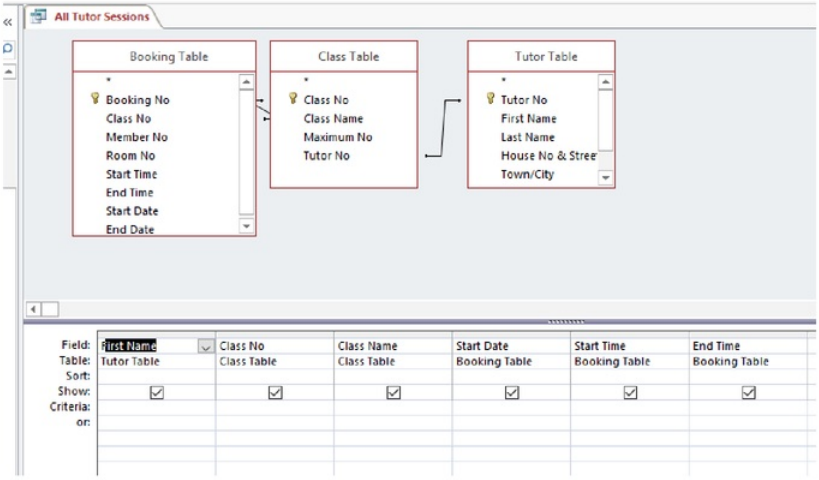
This is a single-table query that the writer created to show all of the members. The writer added a calculation field to show the current age of each member. The ages of each member will automatically change every year.

All Member Ages

Member No	First Name	Last Name	Date Of Birth	Age
MB001	Riaz	Khan	14/04/1998	20
MB002	Jordan	Hughes	03/02/1998	20
MB003	Rhys	Nordhoff	21/07/1998	20
MB004	David	Romaniw	19/06/1998	20
MB005	Edgar	Davids	06/08/1972	46
MB006	Lewis	Buckley	07/05/1988	30
MB007	Harry	Corish	21/11/1997	21
MB008	Matthew	Hooper	02/02/1998	20
MB009	Kieran	Parsons	29/07/1990	28
MB010	Francesca	Tobin	10/12/1986	32
MB011	Lucy	Jones	17/04/1978	40
MB012	Amy	Williams	10/09/1977	41
MB013	Michael	Richards	09/03/1976	42
MB014	Mary	Cunningham	13/06/1989	29
MB015	Alexa	Jones	12/02/1990	28
MB016	Liam	Williams	15/08/1993	25
MB017	John	Miller	09/12/1978	40
MB018	Michael	Owens	06/04/1997	21
MB019	Harold	Lewis	29/12/1988	30
MB020	Tobi	Lerone	26/08/1992	26
MB021	Arthur	Worrey	30/10/1977	41
MB022	James	Arthur	14/09/1989	29
MB023	John	Doe	26/09/1999	19

Record: 1 of 24 No Filter Search

All tutor sessions query:



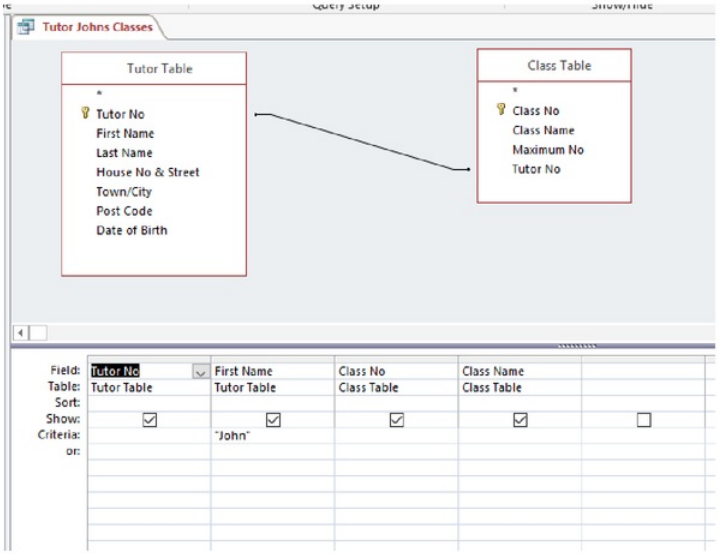
All Tutor Sessions

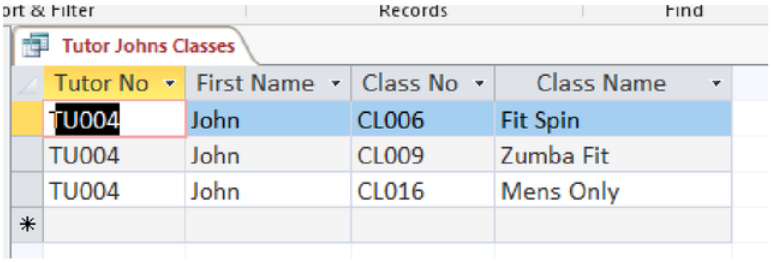
First Name	Class No	Class Name	Start Date	Start Time	End Time
Nick	CL001	Core Strength	01/03/2018	17:30 PM	18:30 PM
Nick	CL001	Core Strength	01/03/2018	17:30 PM	18:30 PM
Nick	CL001	Core Strength	01/03/2018	17:30 PM	18:30 PM
Nick	CL001	Core Strength	01/03/2018	17:30 PM	18:30 PM
Jane	CL002	Circuits	04/05/2018	20:00 PM	21:00 PM
Jane	CL002	Circuits	04/05/2018	20:00 PM	21:00 PM
Jane	CL002	Circuits	04/05/2018	20:00 PM	21:00 PM
Nick	CL003	Legs, Bums & Tums	09/05/2018	07:00 AM	08:00 AM
Nick	CL003	Legs, Bums & Tums	09/05/2018	07:00 AM	08:00 AM
Mark	CL004	Glutes & Abs	28/04/2018	08:30 AM	09:30 AM
Mark	CL004	Glutes & Abs	28/04/2018	08:30 AM	09:30 AM
Mark	CL005	Body Conditioning	02/03/2018	09:00 AM	10:30 AM
Mark	CL005	Body Conditioning	10/04/2018	07:00 AM	08:30 AM
Mark	CL005	Body Conditioning	16/04/2018	15:00 PM	16:00 PM
Mark	CL005	Body Conditioning	16/04/2018	15:00 PM	16:00 PM
Mark	CL005	Body Conditioning	16/04/2018	15:00 PM	16:00 PM
John	CL006	Fit Spin	08/05/2018	10:00 AM	11:30 AM
John	CL006	Fit Spin	08/05/2018	10:00 AM	11:30 AM
Johnny	CL007	Abs Blast	15/03/2018	10:30 AM	12:00 AM
Johnny	CL007	Abs Blast	15/03/2018	10:30 AM	12:00 AM
Johnny	CL007	Abs Blast	18/03/2018	19:00 PM	20:30 PM
Johnny	CL007	Abs Blast	15/03/2018	10:30 AM	12:00 PM
Johnny	CL007	Abs Blast	15/03/2018	10:30 AM	12:00 PM

Record: 1 of 62 No Filter Search

This query can be used to create a time-table in the form of a report.

Tutor John's classes query:



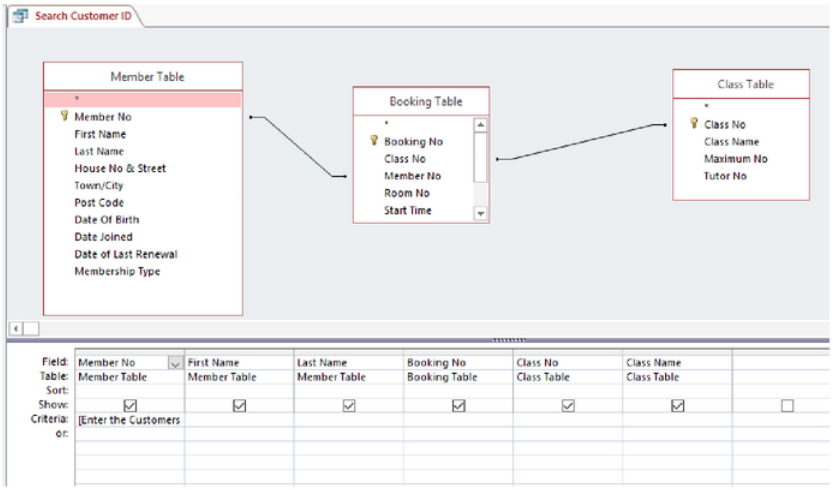


Tutor Johns Classes

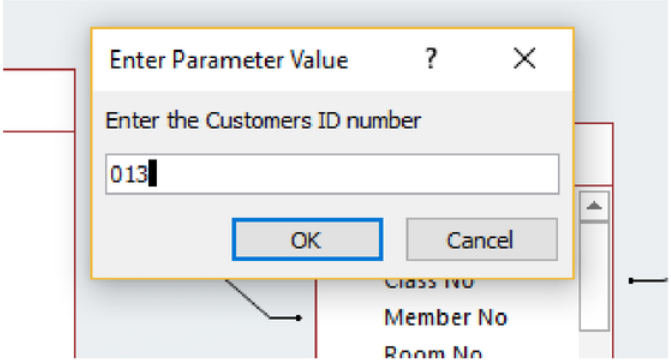
Tutor No	First Name	Class No	Class Name
TU004	John	CL006	Fit Spin
TU004	John	CL009	Zumba Fit
TU004	John	CL016	Mens Only

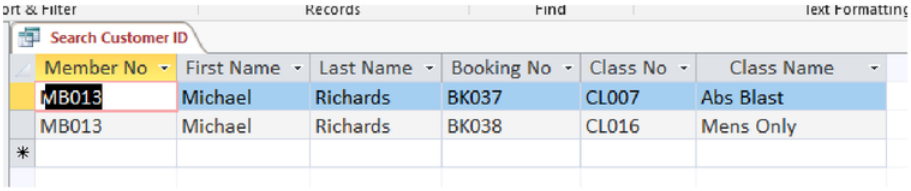
The criteria for this query can easily be changed to any of the other tutors' names.

Search Customer Query:



This is a search query that the writer created in replacement of the member-class table. This allows the user to specify a member by their number and it shows the classes that they have signed up for.



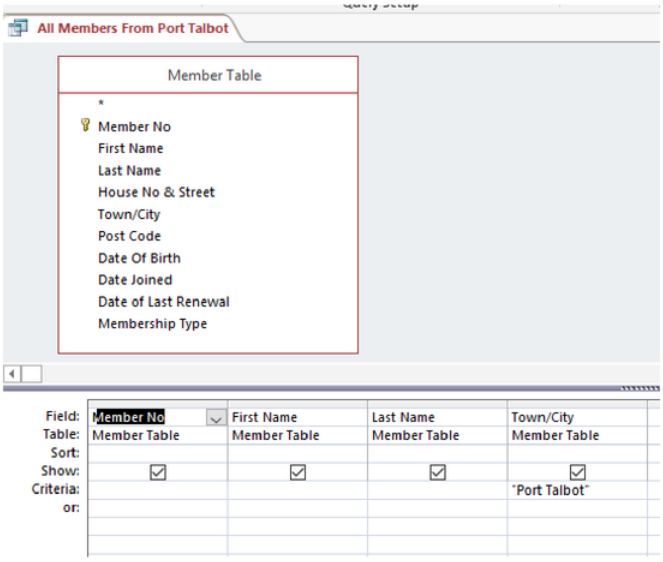


Search Customer ID

Member No	First Name	Last Name	Booking No	Class No	Class Name
MB013	Michael	Richards	BK037	CL007	Abs Blast
MB013	Michael	Richards	BK038	CL016	Mens Only

Information about the classes and member can be found easier and quicker this way.

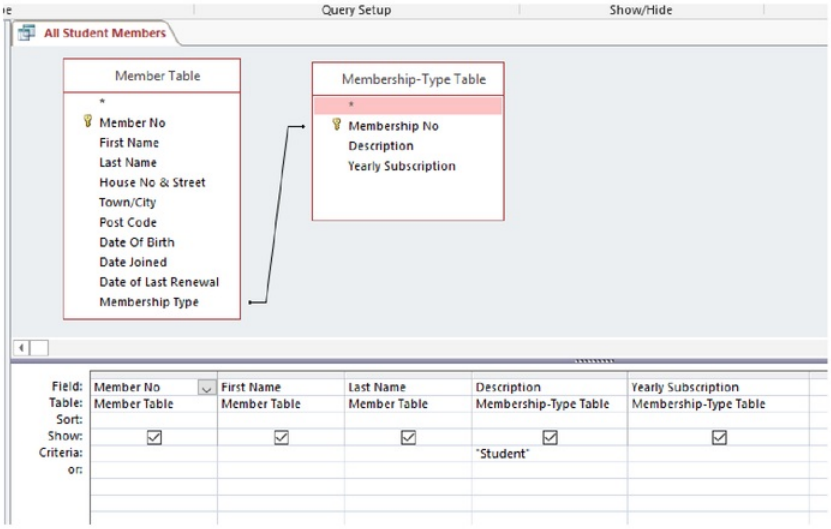
Port Talbot Members query:



All Members From Port Talbot

Member No	First Name	Last Name	Town/City
MB001	Riaz	Khan	Port Talbot
MB002	Jordan	Hughes	Port Talbot
MB003	Rhys	Nordhoff	Port Talbot
MB004	David	Romaniw	Port Talbot
MB006	Lewis	Buckley	Port Talbot
MB007	Harry	Corish	Port Talbot
MB008	Matthew	Hooper	Port Talbot
MB009	Kieran	Parsons	Port Talbot
MB010	Francesca	Tobin	Port Talbot
MB011	Lucy	Jones	Port Talbot
MB013	Michael	Richards	Port Talbot
MB014	Mary	Cunningham	Port Talbot
MB015	Alexa	Jones	Port Talbot
MB017	John	Miller	Port Talbot
MB018	Michael	Owens	Port Talbot
MB020	Tobi	Lerone	Port Talbot
MB021	Arthur	Worrey	Port Talbot
MB022	James	Arthur	Port Talbot
MB023	John	Doe	Port Talbot

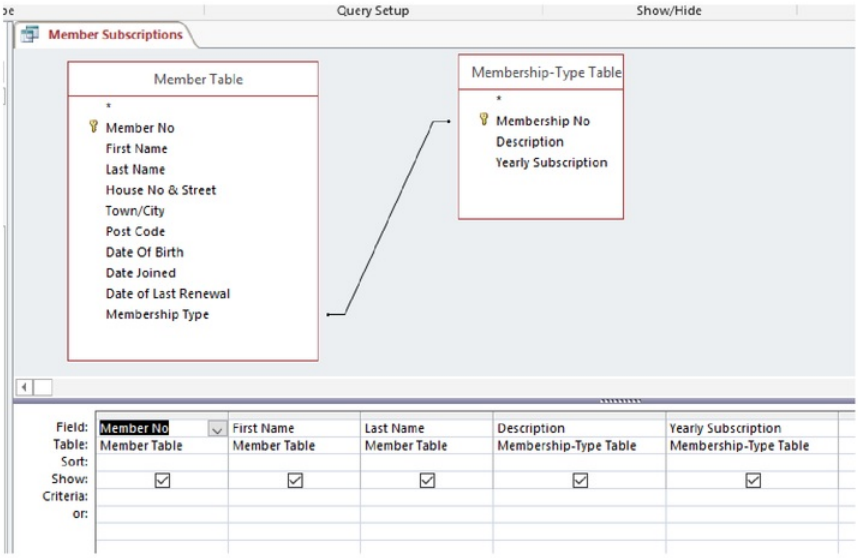
Student Members Query:

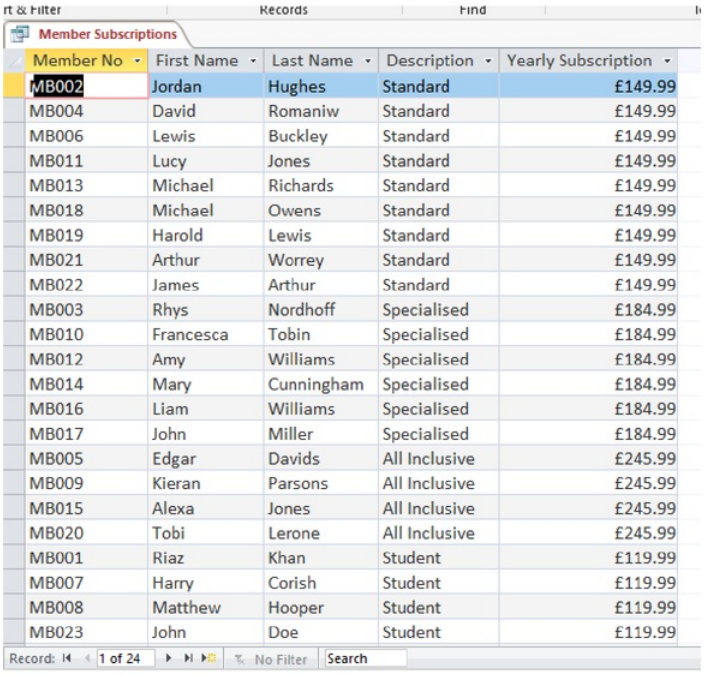


All Student Members

Member No	First Name	Last Name	Description	Yearly Subscription
MB001	Riaz	Khan	Student	£119.99
MB007	Harry	Corish	Student	£119.99
MB008	Matthew	Hooper	Student	£119.99
MB023	John	Doe	Student	£119.99
MB024	Beth	Jones	Student	£119.99

All Member Subscriptions query:

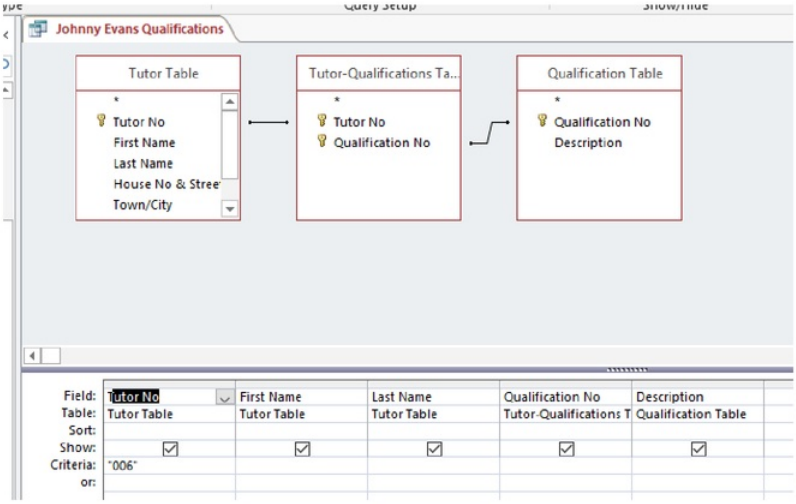


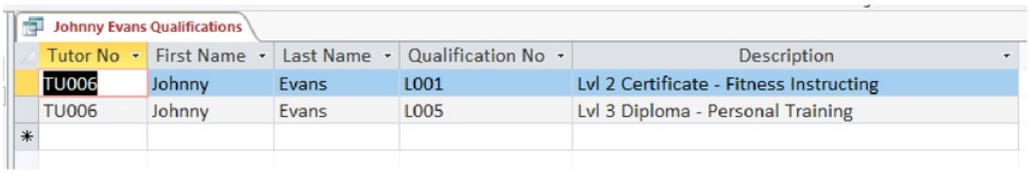


Member No	First Name	Last Name	Description	Yearly Subscription
MB002	Jordan	Hughes	Standard	£149.99
MB004	David	Romaniw	Standard	£149.99
MB006	Lewis	Buckley	Standard	£149.99
MB011	Lucy	Jones	Standard	£149.99
MB013	Michael	Richards	Standard	£149.99
MB018	Michael	Owens	Standard	£149.99
MB019	Harold	Lewis	Standard	£149.99
MB021	Arthur	Worrey	Standard	£149.99
MB022	James	Arthur	Standard	£149.99
MB003	Rhys	Nordhoff	Specialised	£184.99
MB010	Francesca	Tobin	Specialised	£184.99
MB012	Amy	Williams	Specialised	£184.99
MB014	Mary	Cunningham	Specialised	£184.99
MB016	Liam	Williams	Specialised	£184.99
MB017	John	Miller	Specialised	£184.99
MB005	Edgar	Davids	All Inclusive	£245.99
MB009	Kieran	Parsons	All Inclusive	£245.99
MB015	Alexa	Jones	All Inclusive	£245.99
MB020	Tobi	Lerone	All Inclusive	£245.99
MB001	Riaz	Khan	Student	£119.99
MB007	Harry	Corish	Student	£119.99
MB008	Matthew	Hooper	Student	£119.99
MB023	John	Doe	Student	£119.99

This query was created so that the total income report could be made. The report helps the user to view the information in a clearer manner. The report also allows for calculations to be made.

Johnny Evans Qualifications Query:

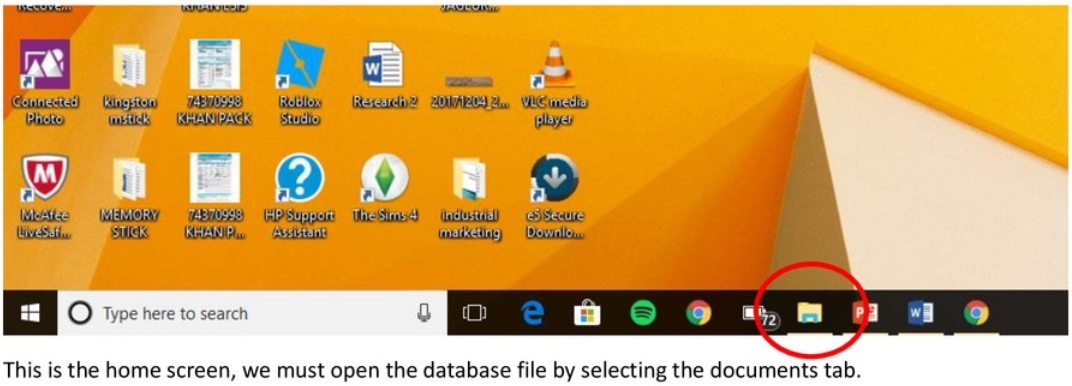




5. User Guide

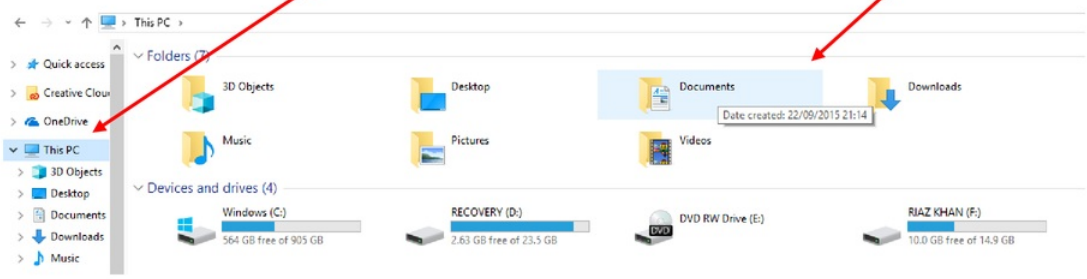
How to open the database –

The database can be saved on many storage devices but in this case we will have it saved on the computers documents files.

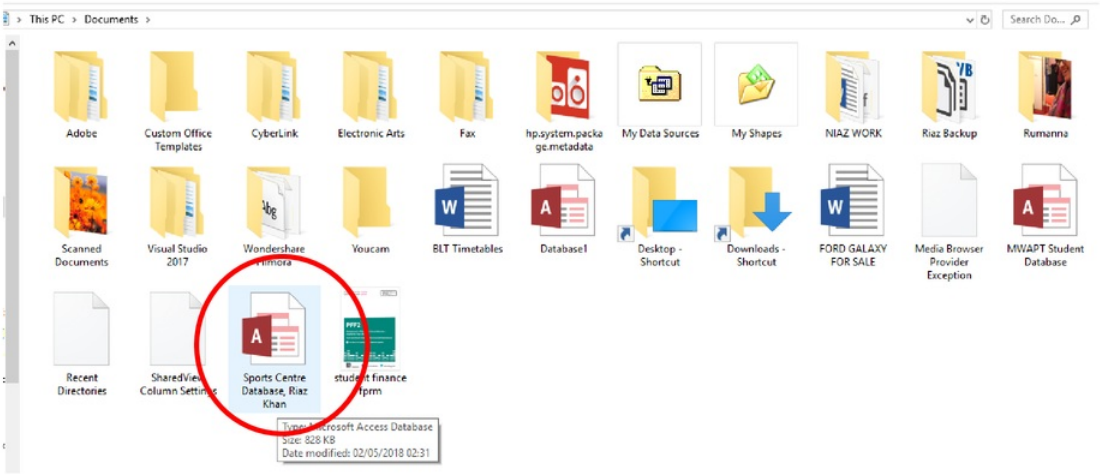


This is the home screen, we must open the database file by selecting the documents tab.

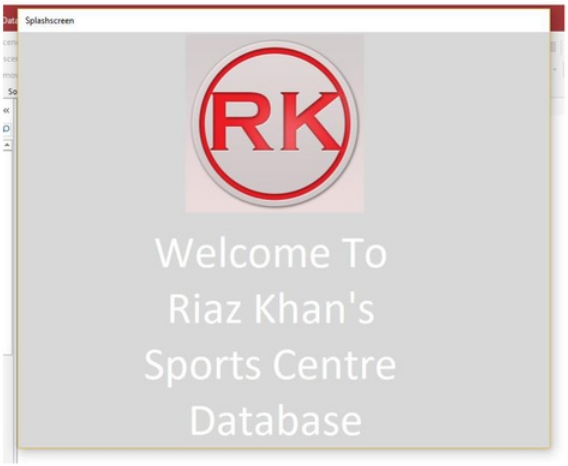
The user will then need to click on “This PC” which can be found on the left side and then proceed to click on the documents folder.



After clicking on that file the user will then see the database that is titled “Sports Centre database”.

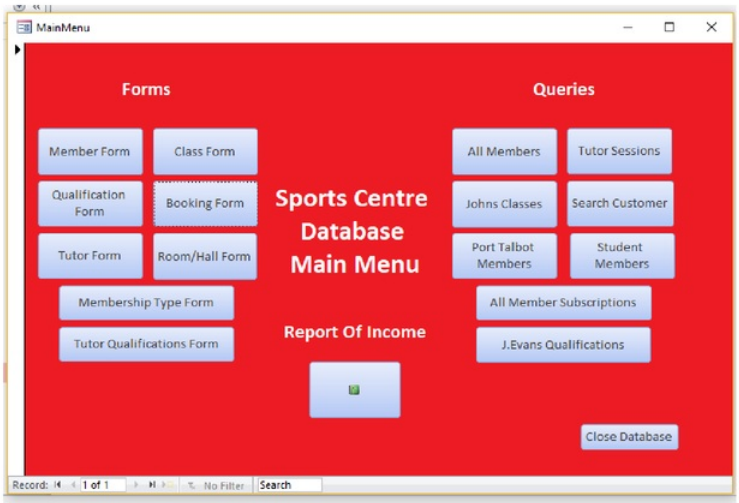


The splash-screen –



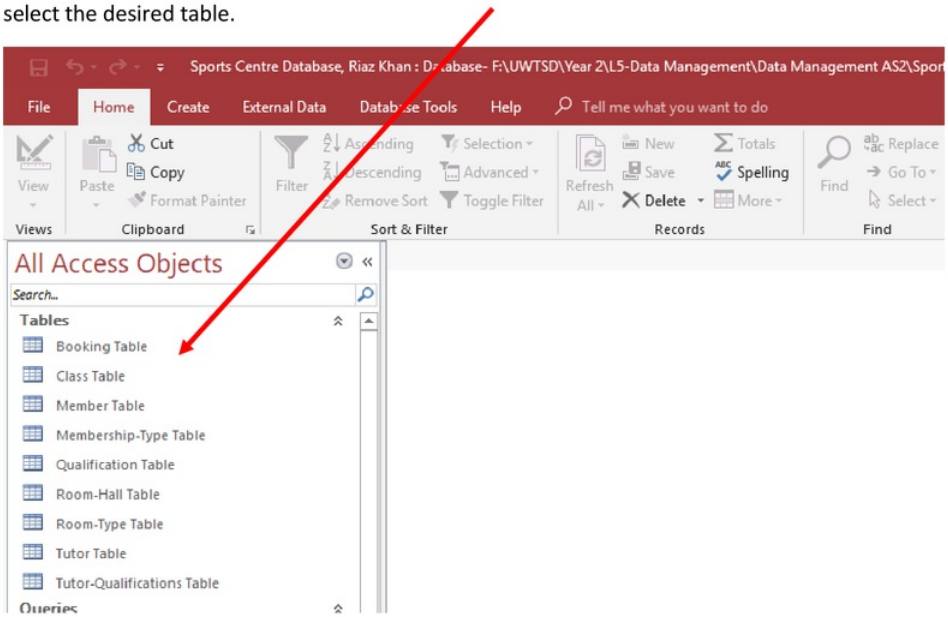
This is the splash-screen, a small welcome message when the database has been opened. The user will not be required to click anything at this point as it runs on a timer. After 6 seconds the welcome screen will disappear, and the main menu will load.

The Main Menu –



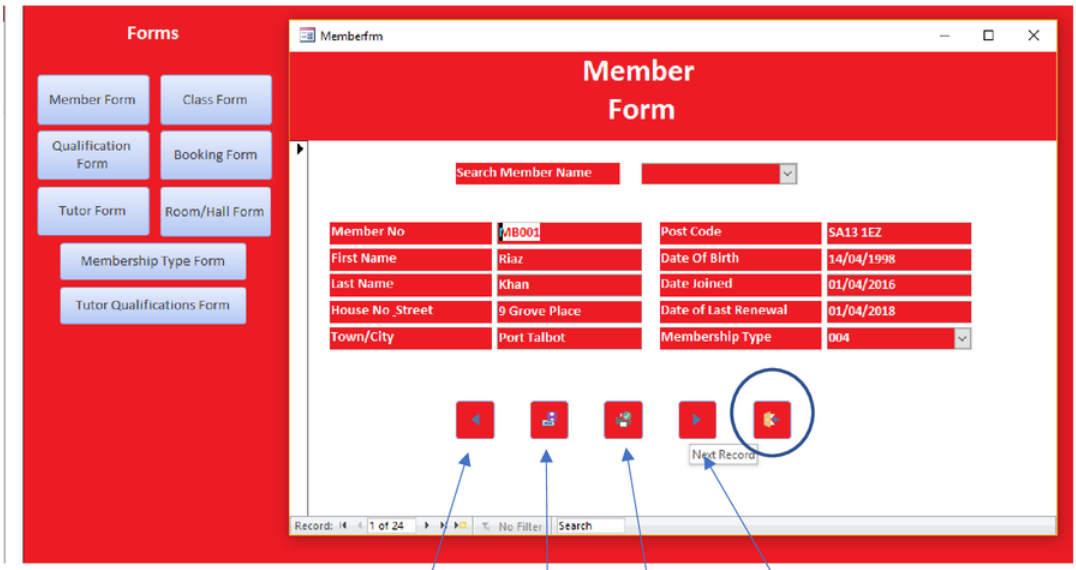
The main menu will appear automatically after the splash screen has disappeared. On this page the user will be able to select any of the forms or queries.

If the user wishes to view one of the tables then they can simply click on the navigation pane and select the desired table.



Selecting Forms –

To view a form then all the user is required to do is select one of the form buttons, for this example the writer will choose the member form.

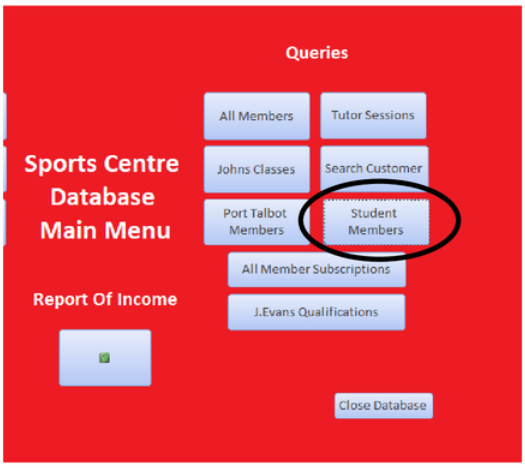


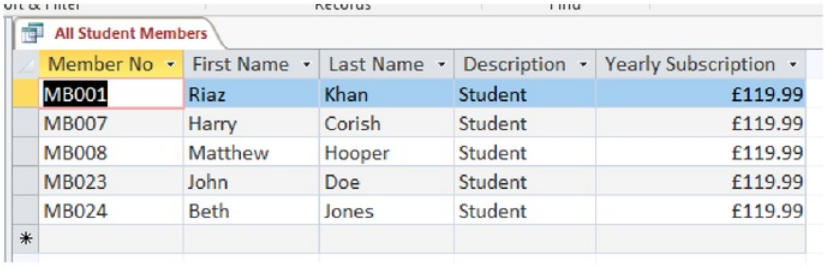
Every form in the database is laid out the same way and includes the same buttons.

These buttons will take you to the previous record, save record, print record, go to next record and close the form.

Selecting queries –

Selecting the queries is exactly the same as the forms, just click on the query you want, and the results will display automatically.



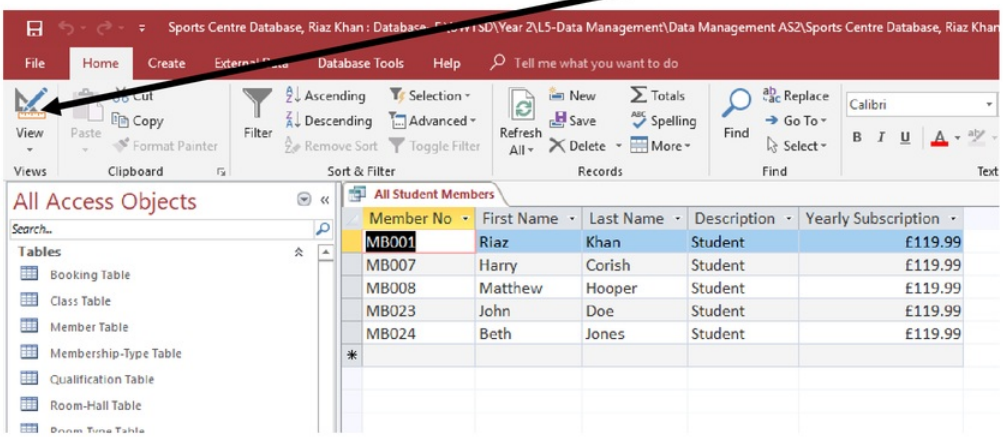


All Student Members

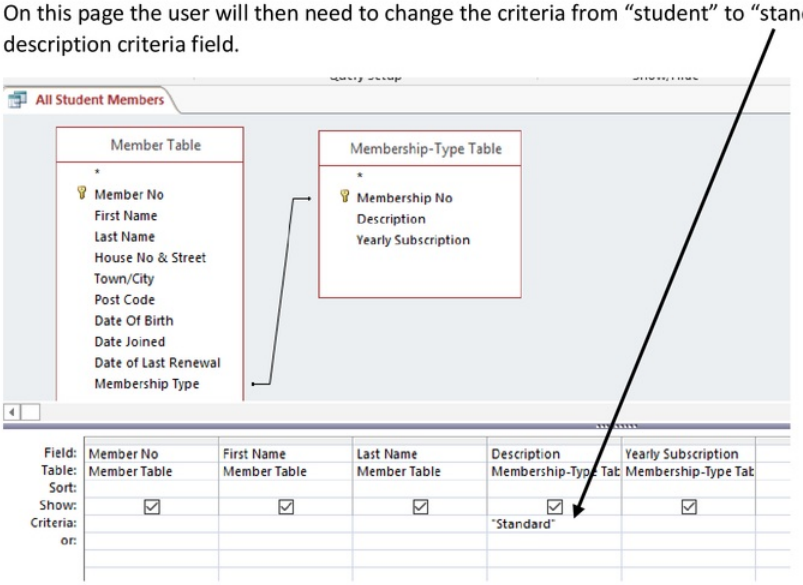
Member No	First Name	Last Name	Description	Yearly Subscription
MB001	Riaz	Khan	Student	£119.99
MB007	Harry	Corish	Student	£119.99
MB008	Matthew	Hooper	Student	£119.99
MB023	John	Doe	Student	£119.99
MB024	Beth	Jones	Student	£119.99

The writer clicked on the student members button and the correct information was displayed.

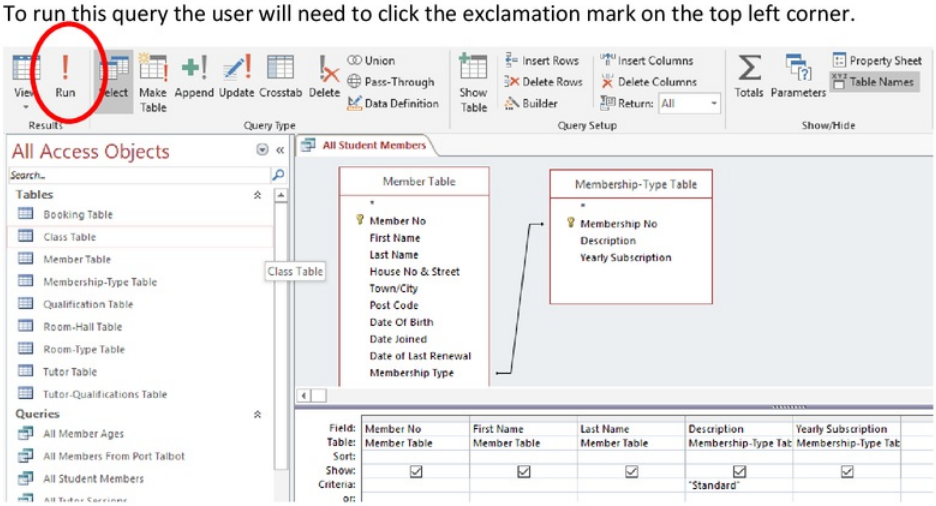
The criteria for this query can quickly be changed to show members who have a standard membership with the gym. To do this the user will need to go on design view.

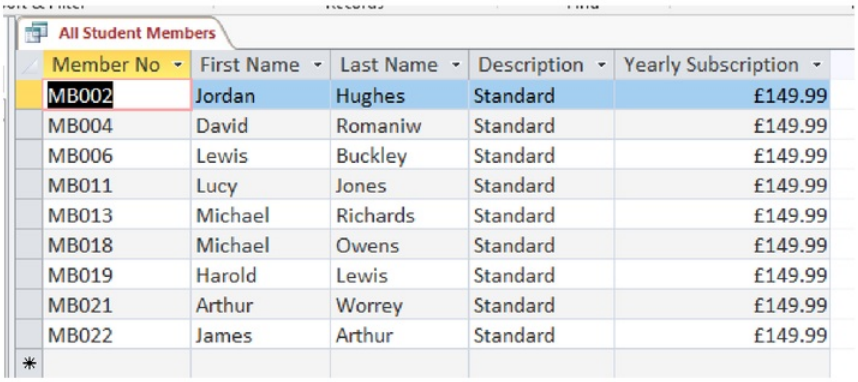


On this page the user will then need to change the criteria from “student” to “standard” in the description criteria field.



To run this query the user will need to click the exclamation mark on the top left corner.





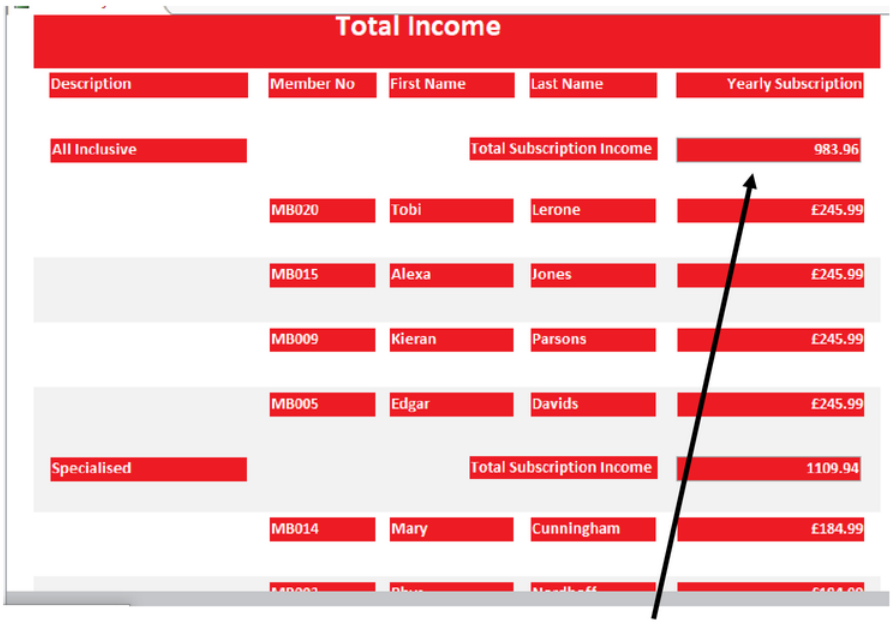
All Student Members

Member No	First Name	Last Name	Description	Yearly Subscription
MB002	Jordan	Hughes	Standard	£149.99
MB004	David	Romaniw	Standard	£149.99
MB006	Lewis	Buckley	Standard	£149.99
MB011	Lucy	Jones	Standard	£149.99
MB013	Michael	Richards	Standard	£149.99
MB018	Michael	Owens	Standard	£149.99
MB019	Harold	Lewis	Standard	£149.99
MB021	Arthur	Worrey	Standard	£149.99
MB022	James	Arthur	Standard	£149.99

Report –

This report was created by running a query for all of the member subscriptions. It shows all of the members and the type of membership that they have with the sports centre, along with the price. The query for this report will not need to be changed as it will change automatically.

The report can be opened by clicking on the report icon, on the main menu.



Total Income

Description	Member No	First Name	Last Name	Yearly Subscription
All Inclusive			Total Subscription Income	983.96
	MB020	Tobi	Lerone	£245.99
	MB015	Alexa	Jones	£245.99
	MB009	Kieran	Parsons	£245.99
	MB005	Edgar	Davids	£245.99
Specialised			Total Subscription Income	1109.94
	MB014	Mary	Cunningham	£184.99

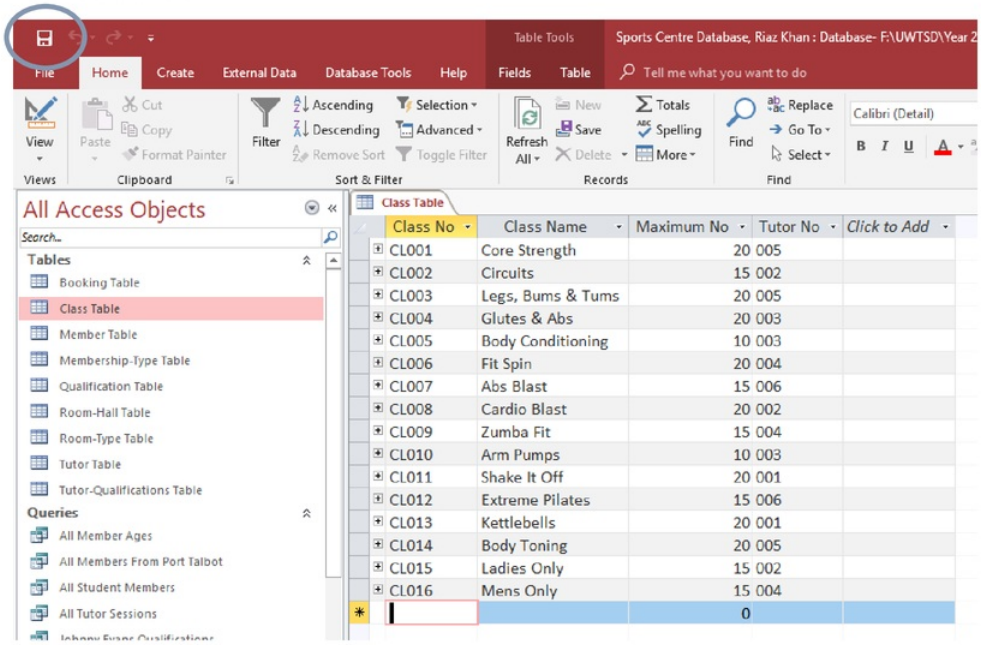
The report is grouped by the type of membership e.g. all inclusive, standard, etc. Calculations are automatically made to show the total price from each membership type and the total from the whole report.

Student			Total Subscription Income	599.95
	MB001	Riaz	Khan	£119.99
	MB007	Harry	Corish	£119.99
	MB024	Beth	Jones	£119.99
	MB008	Matthew	Hooper	£119.99
	MB023	John	Doe	£119.99
			Total Income	4043.76

11 May 2018

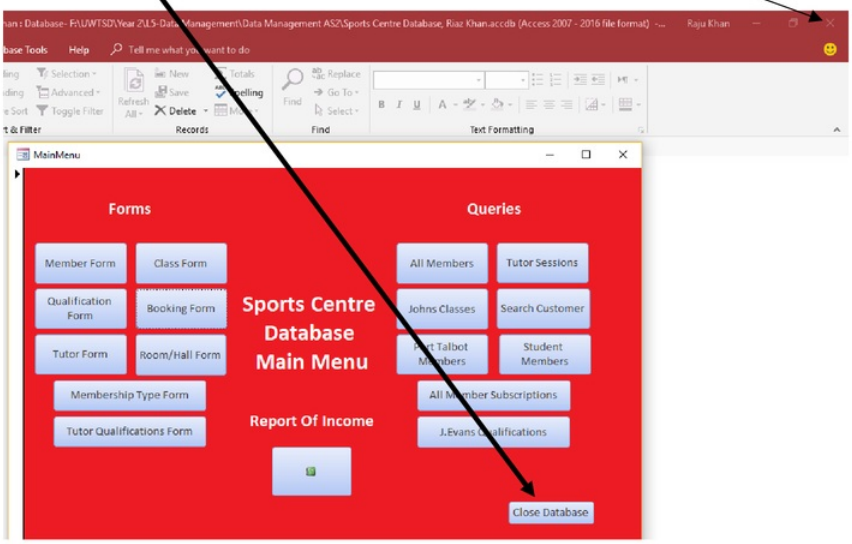
Saving the database –

To save the whole database the user will need to dick on the floppy disc icon that is located on the top left of the screen.



Closing the system –

After saving the database the user can close the database in two ways, they can either click on the "Close Database" button on the main menu, or they can click on the "X" icon that can be found on the top right of the database.



Data Management 2, Documentation Riaz Khan

GRADEMARK REPORT

FINAL GRADE

80/100

GENERAL COMMENTS

Instructor

Excellent splash screen to open the system and a well-designed mean many. All schema correctly developed and some suitable input masks and validation rules have enhanced the overall table design. He thought about the requirements and added queries to enhance the user experience. A good system with a well-designed menu consistent use of batons in all your tables. Good use of drop-down boxes to have the user search for information. Well-written report indicating use of test data and discussing the overall design.

You analyse the systems requirements well when building the database tables and enhance their design by choosing correct data types and supporting this by implementing validation rules 21/25

You demonstrate a sound understanding of the design principles required when building such a system 18/20

You have added some excellent functionality to your system and given it a professional feel 39/45

Your work presented to a high standard report indicates your design implementation and your use of test data. 8/10. Total 86

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