

End user computing

Business Information technology

Building End User Computing Systems

Rutendo Gore

Beverly Holland

Introduction

For the Your teeth our smile scenario it was requested for an implemented prototype solution using either Microsoft Excel or Microsoft Access as the platform to develop the working system and add additional functionality of the system.

The system will perform the procedures as requested by the user.

Provide facilities that will automate the user activities

Provide facilities that will allow the user to print out any part of the system automatically.

Provide a brief user guide to your system

Provide a user-friendly system

Critically appraise the prototype development environment and the systems that you have developed the complete system. Comment on the advantages and disadvantages of using Ms-Excel and or MS-Access as end user development environment.

Advantages of creating the system in Access

Access is a great software tool for creating relational databases. Access is the best software to use for creating your teeth our smile prototype as you can manipulate the data to do what you want to achieve. In Access you are able to create an Entity Relationship Diagram which shows the different relationships between the different tables. Each table represents a different entity, the relationships shown with the access database can vary it could be a one to many to relationship where the dentist has many patients, and also when the patient has many appointments this is a one to many. Another relationship is the dentist has many appointments with patients. It's not that easy to record macros in Access as compared to Excel where it's more simplified. (Show how to make a macro both in excel and access to compare the too) You can move from table to table easily, in Excel you have to move from one sheet to the other which not ideal in some instances. There is more opportunities to automate the database within Access by adding buttons for users to navigate through the database and there is automation on the main menu of the database screenshots will be provided of the database.

Disadvantages of creating the system in Access

As previously stated, it's not that easy to create a macro in Access, there is a particular method that has to be followed which has been shown below:

Macro's are easy to create within excel, as you record the macro from the first page to link it to the next page ,not a lot of information is required to create the macro all that is required that it links to the page that it should go.

Advantages of Excel

Excel is good for manipulating data by using different skills, by manipulating data, using cell referencing, and recording macros. You can automate Excel very well if you know how to do it. Using Excel or Access can allow the system to work the way the user requires it for the purpose of the needs.

Disadvantages of Excel

You are not able to define the relationship in an Entity Relation Diagram as you would create in Access. You have to navigate from one sheet to another this can easily be avoided by creating macros that allow you navigate from one page to other easily and that is automating the spreadsheet.

Consideration why did you choose Access instead of Excel

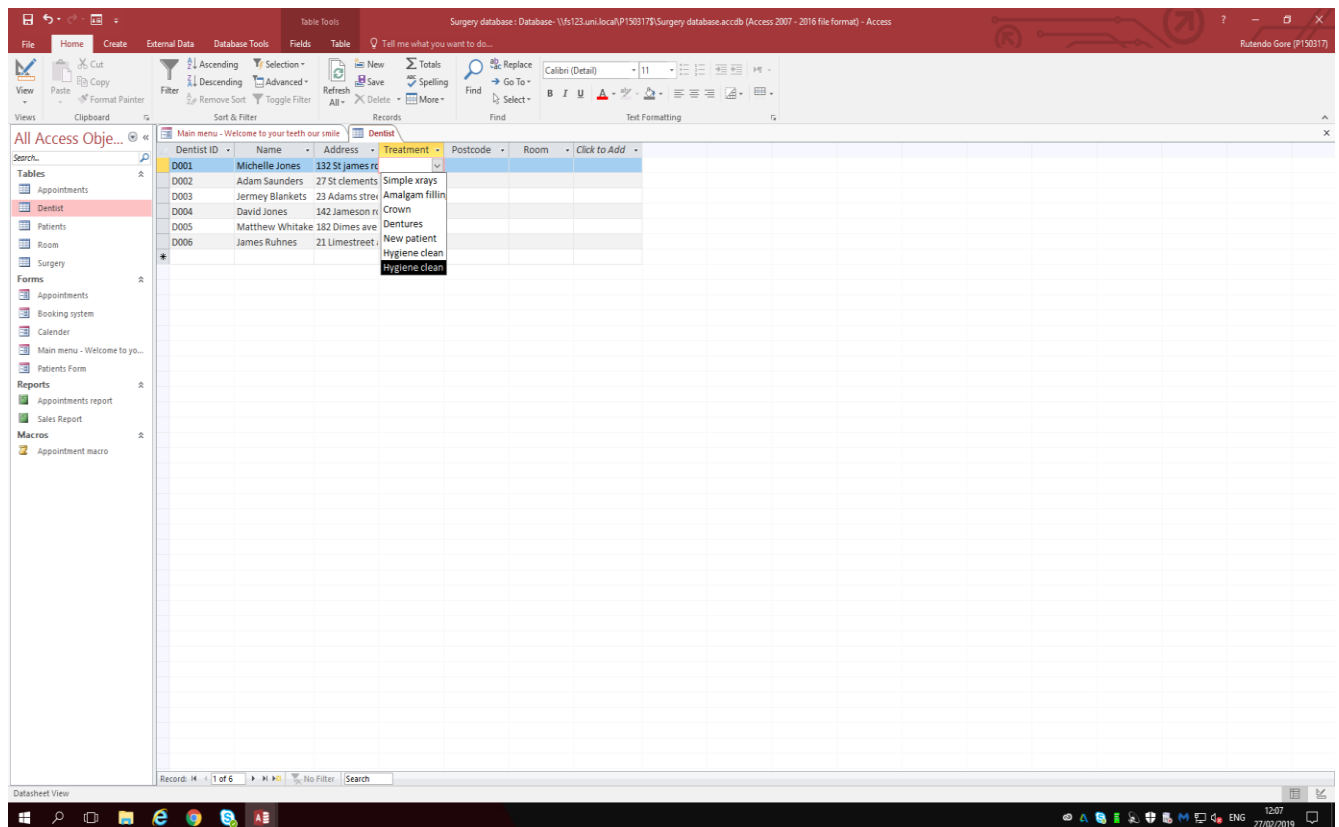
Access was chosen as the platform to create the Your teeth our smile prototype because Access has many advanced features that Excel doesn't have, for example with generating reports is easy in Access as you go the report wizard select all the information you wish to have in the report and it's done for you automatically with just selecting a few fields. You can automate the database more within Access

User Guide for the system created in Access

Below are a series of screenshots that show how the database was created and a brief explanation will be provided by the author to give an overview of what's happening in the screenshot.

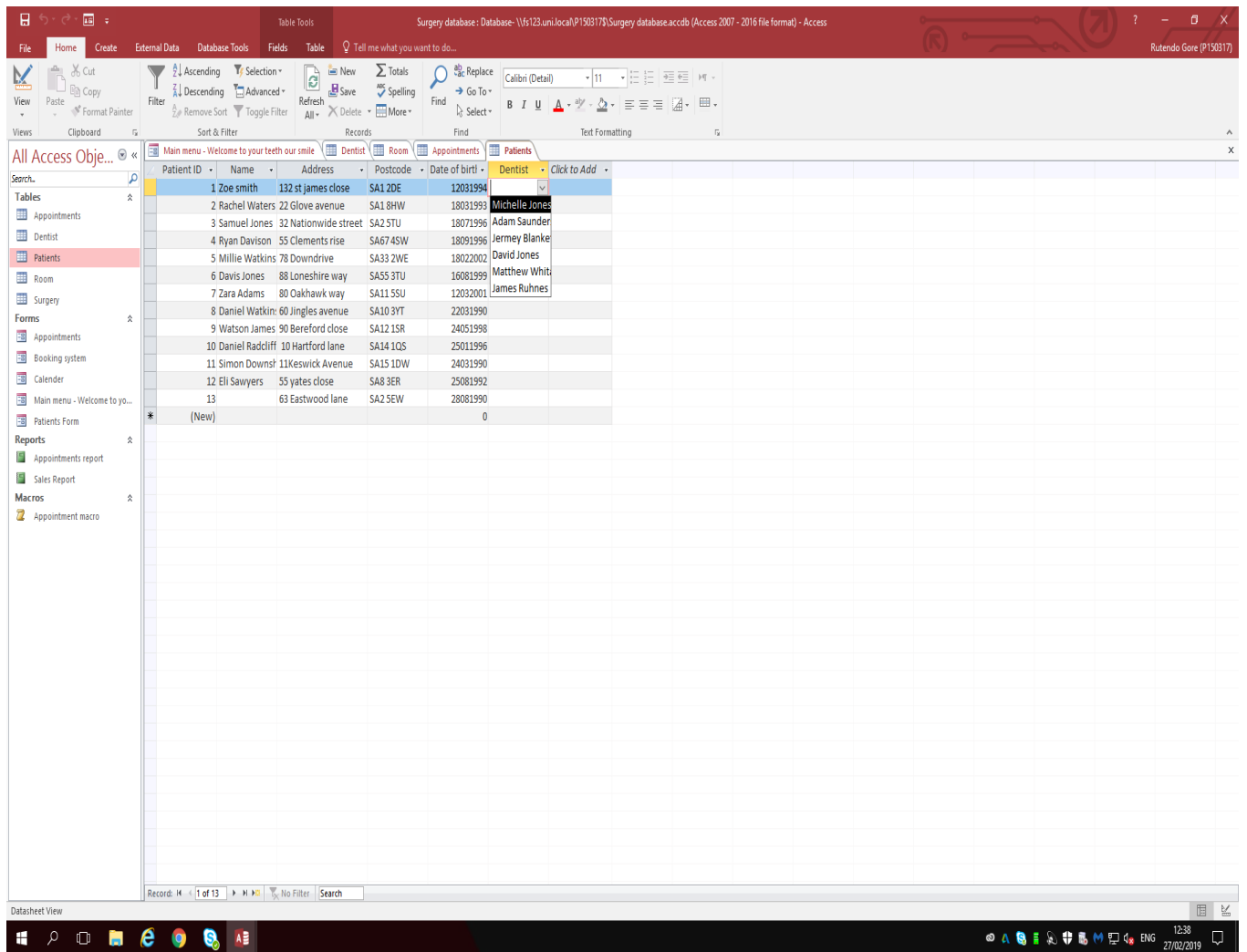
Screenshot of the Dentist table

From the image below there is a table which is still in construction, from the image below we can see in the database that there are six entities each representing different things within the database. We can see that there are six dentist and they individual have a unique dentist ID which identifies them uniquely. For the treatment entity a drop down, menu has been integrated within the design as each dentist is able to perform more than one treatment.

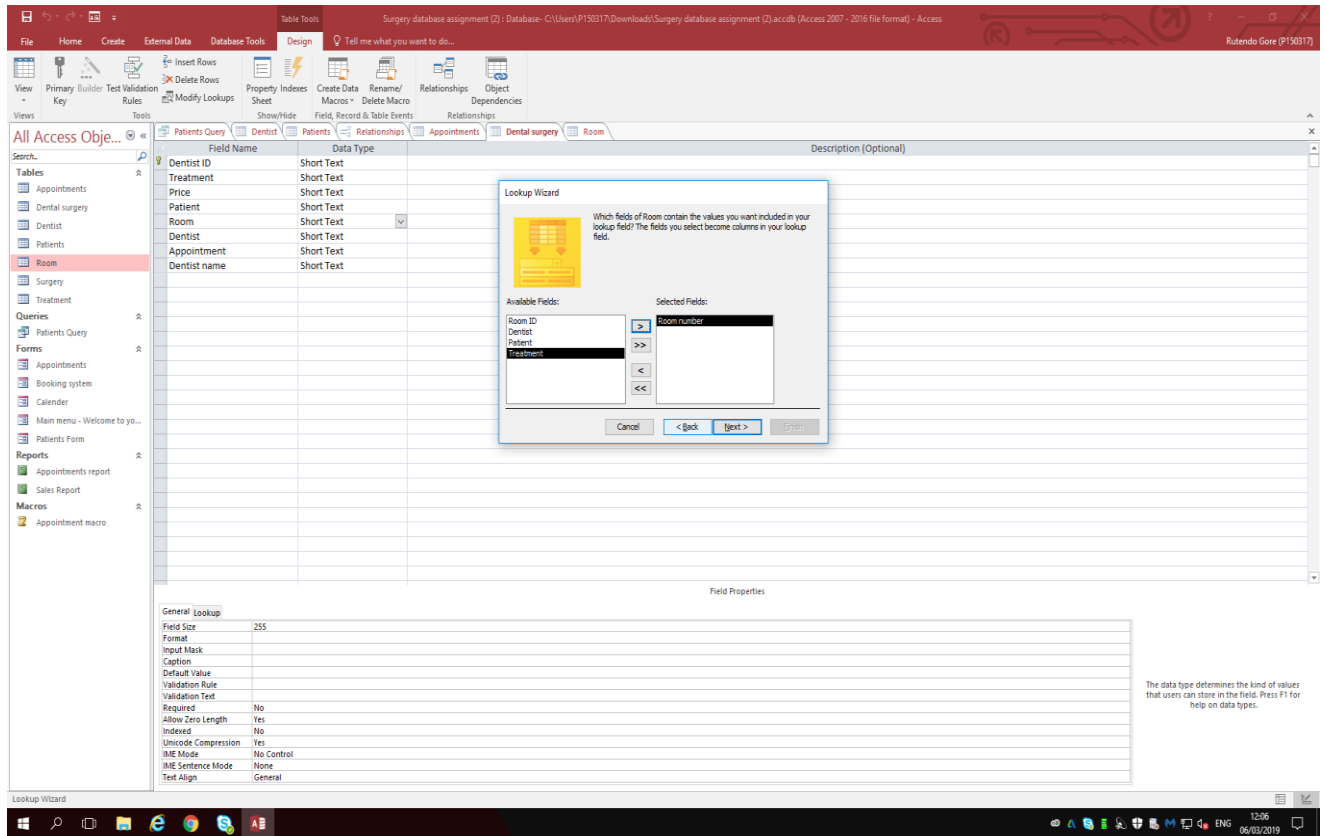


Dentist ID	Name	Address	Treatment	Postcode	Room	Click to Add
D001	Michelle Jones	132 St James rd	Simple xrays			
D002	Adam Saunders	27 St clements	Amalgam fillin			
D003	Jermey Blankets	23 Adams stre	Crown			
D004	David Jones	142 Jameson rd	Dentures			
D005	Matthew Whitake	182 Dimes ave	New patient			
D006	James Ruhnes	21 Limestreet	Hygiene clean			

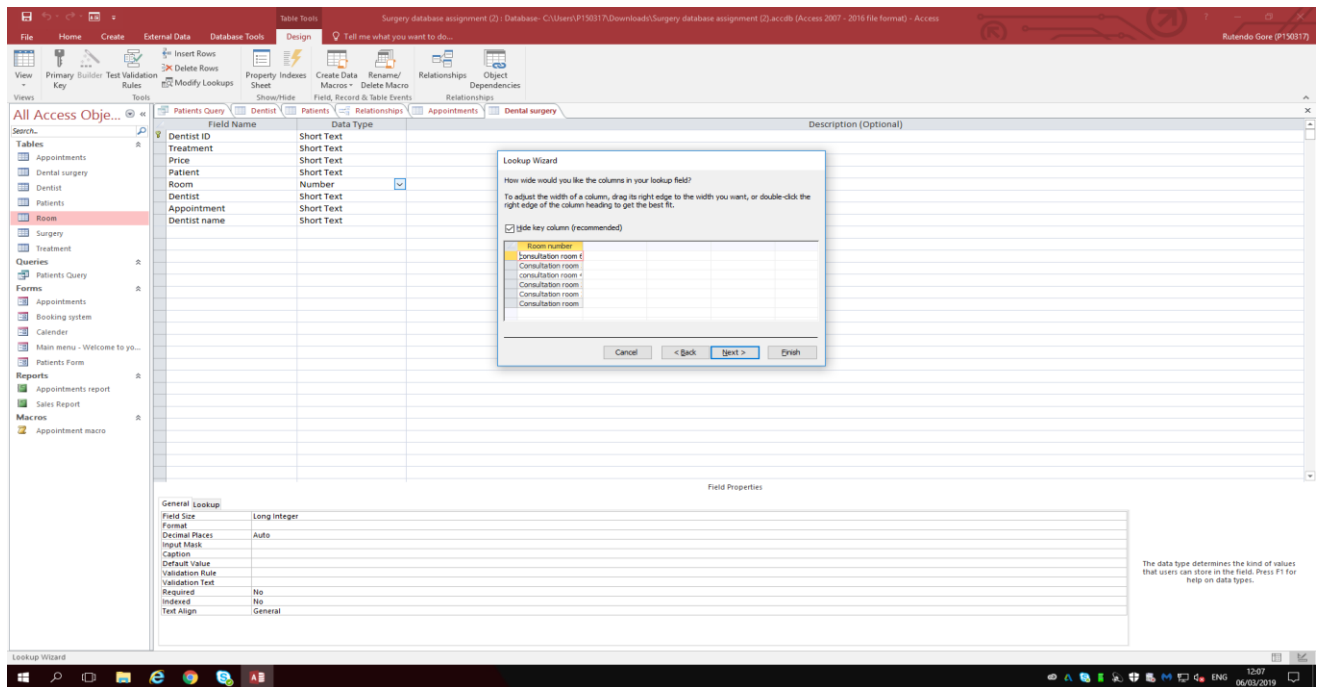
The image above shows the dentist table within Access, it shows a drop-down menu as there are only six dentists and they only perform one procedure on many patients.



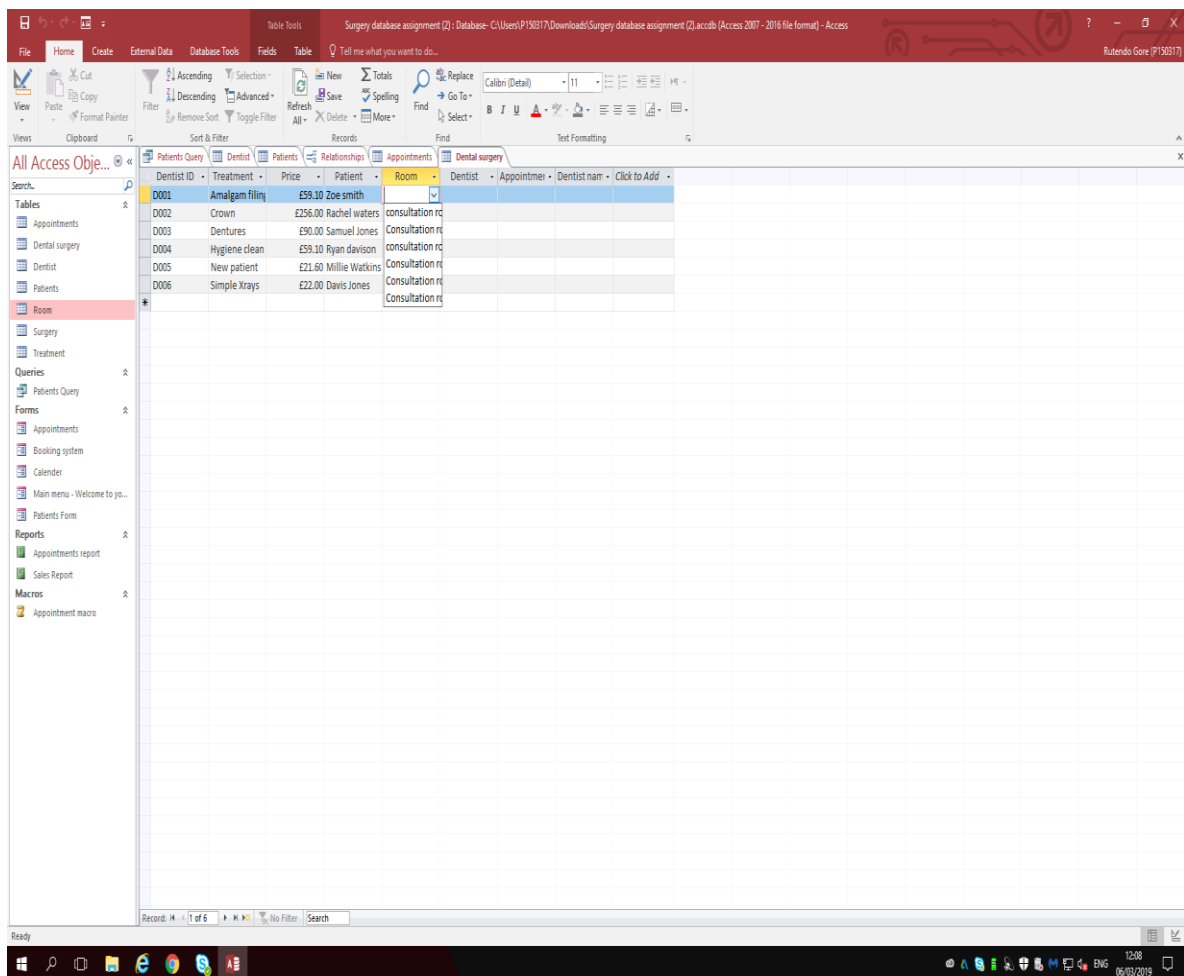
The screenshot below shows the table in design view, there is a pop-up screen that pops up and it enable's to add a look up wizard for the room so they can choose which room they would like to use.



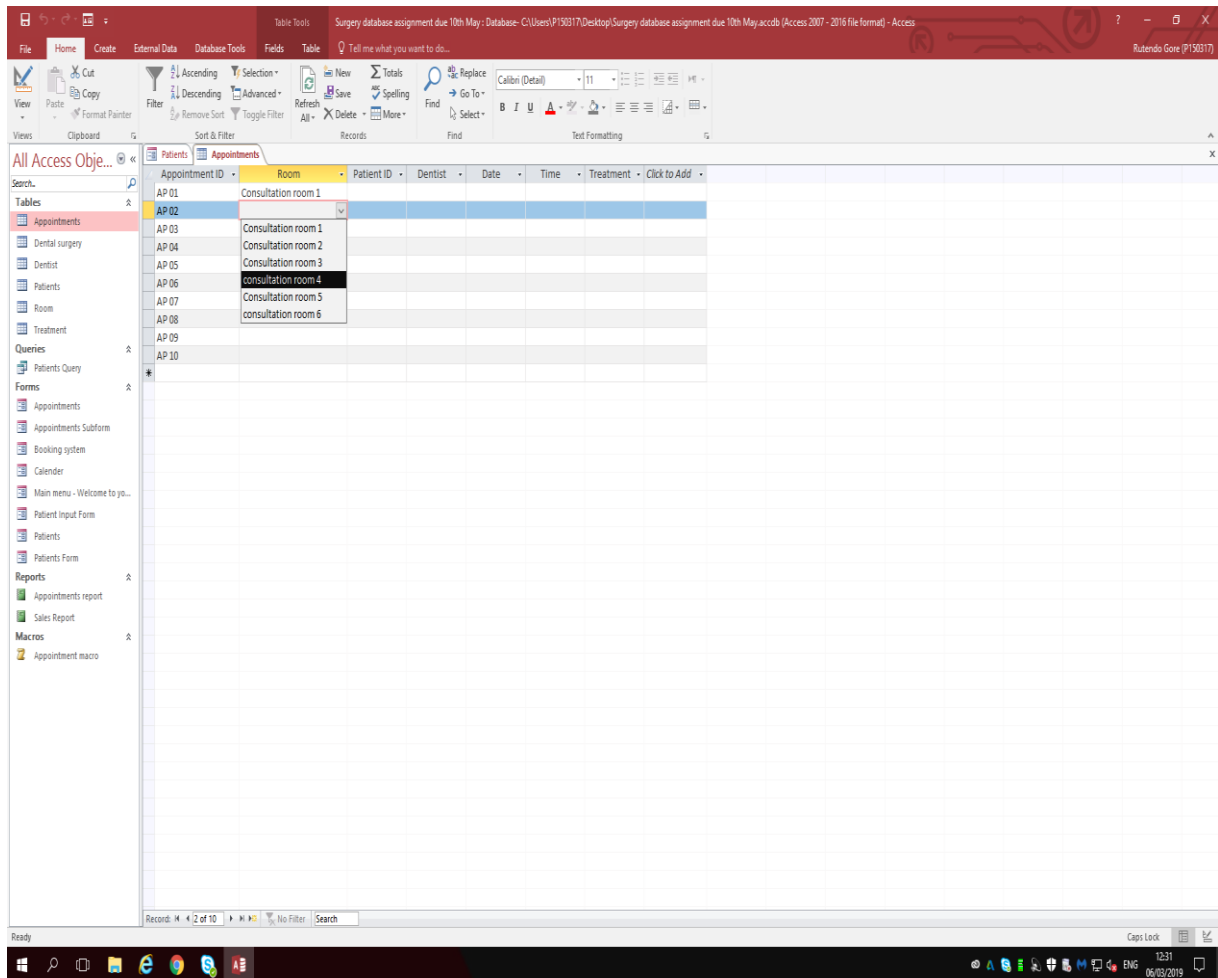
The screenshot shown below shows a look up wizard form that will allow the user chose the room for the treatment that they need to go too, however the rooms stay the same as one dentist only performs the same procedure for different patients, within the dental surgery there are six dentist and each dentist performs one routine procedure on many patients within the dental surgery.



The screenshot below shows that the lookup wizard has been implemented within the design of the database. The user can choose the consultation room they want.

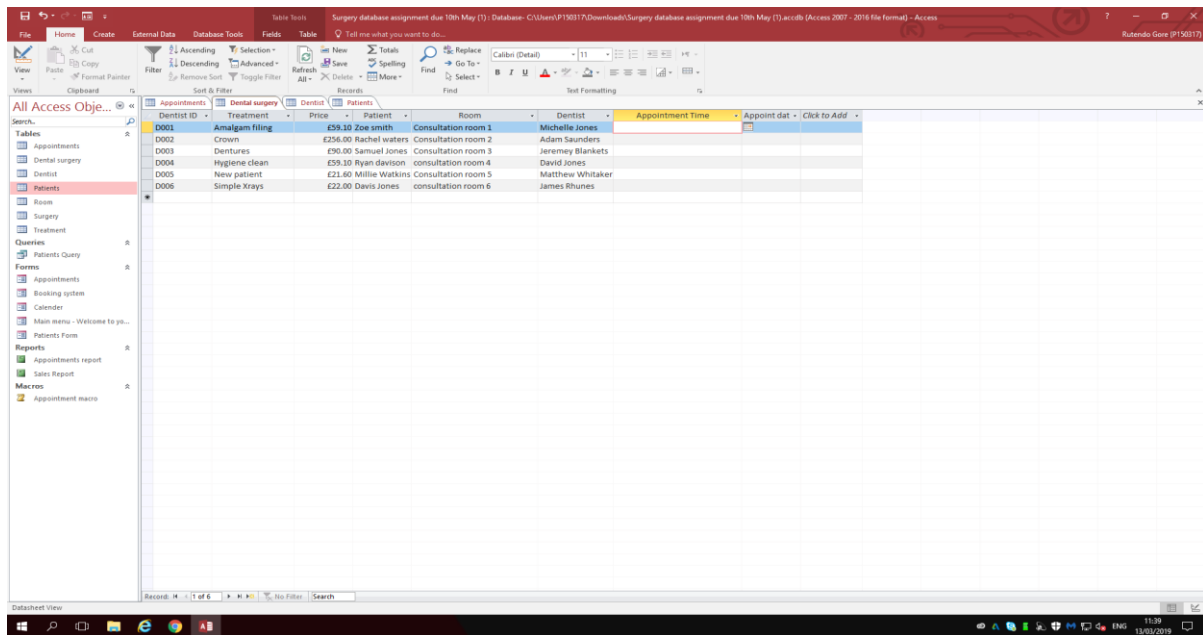


The screenshot below shows the lookup wizard for the rooms but this lookup wizard is also used within the appointment table.

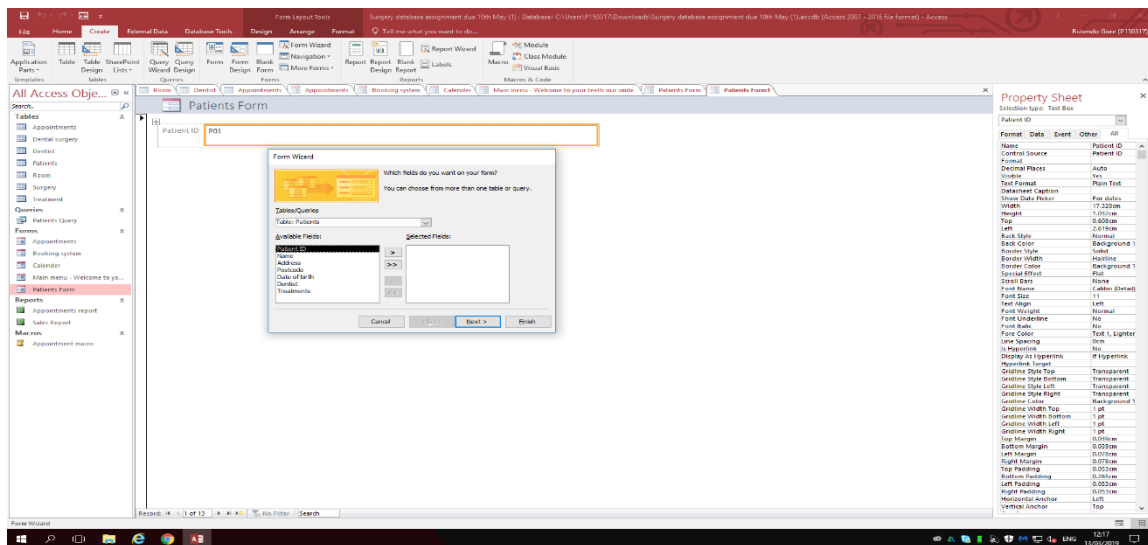


This screenshot below shows the table with a blank field which is the appointment time, it is blank because the values are put in the design view (Provide screenshot of this) and the user is able to choose the appointment time that suits them.

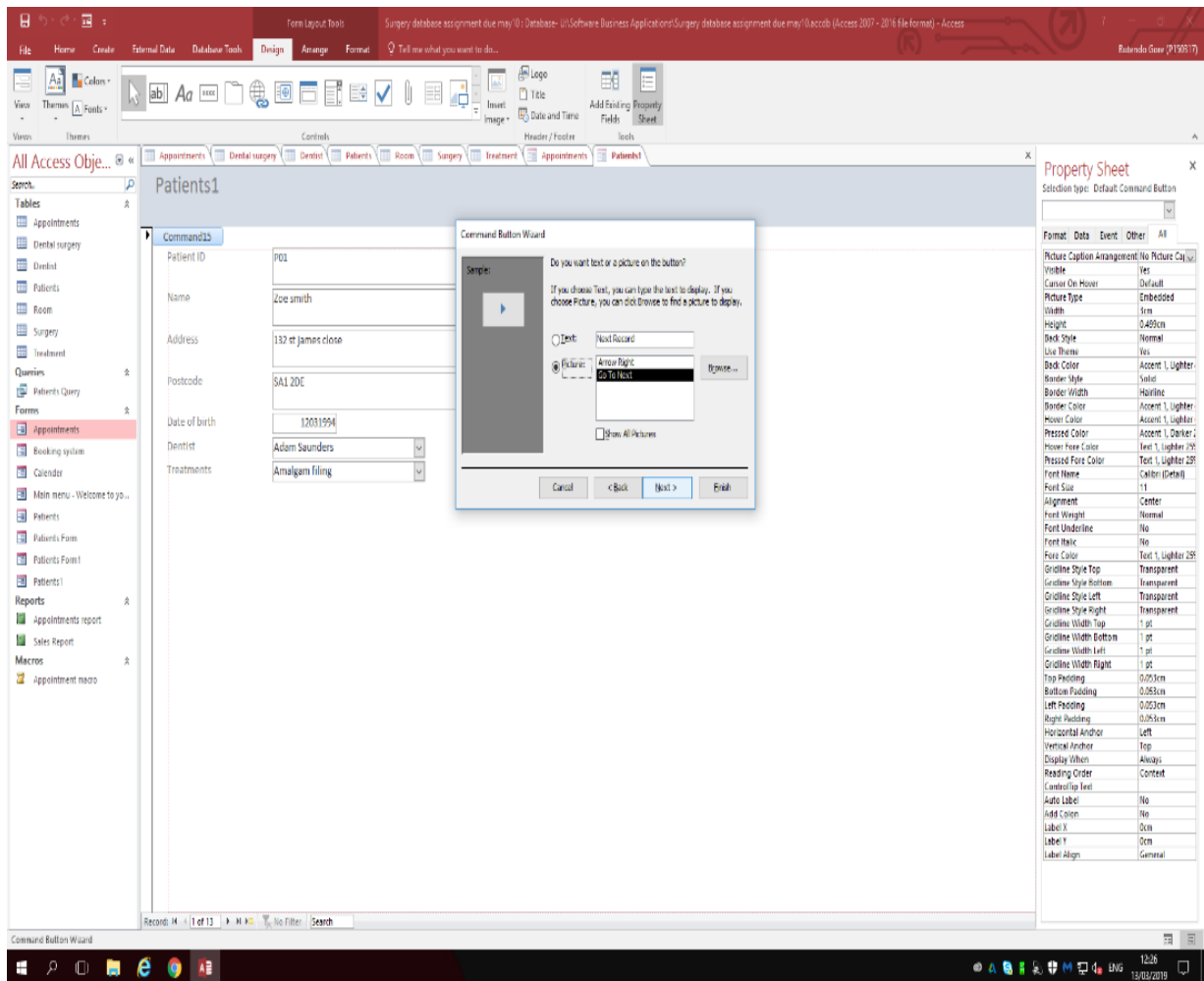
This screenshot shows the Dental surgery table, as shown in the image above the table shows different entities. The entities shown are as follows: Dentist ID, Treatment, treatment price, patient, consultation room, dentist and the appointment field. In the appoint field it is blank as this allows the user to interact with the database by choosing a date they wish to choose



This screenshot shows a patient form adding more information to it. A screenshot with all the fields will be shown within the user guide.



The screenshot below shows adding automation to the database so that the user can interact with the database. The form would require buttons so that the user can navigate their way through the database. The user can navigate through the database manually but its better to have a functional database that can do more.



Surgey database assignment due may/0/ Database: U:\Software Business Applications\Surgey database assignment due may/0.accdb (Access 2007 - 2016 file format) - Access

File Home Create External Data Database Tools Tell me what you want to do...

Views: Clipboard Sort & Filter Filter Descending Advanced Refresh All Save New Spelling Find Replace Go To Select

Tables: Appointments Dental surgery Patients Room Surgery Treatment Appointments report Appointments

Queries: Patients Query Forms: Appointments Booking system Calendar Main menu - Welcome to yo... Patient forms Patients Patients Form Patients Form Reports: Appointments Appointments report Sales Report Macros: Appointment macro

Appointments

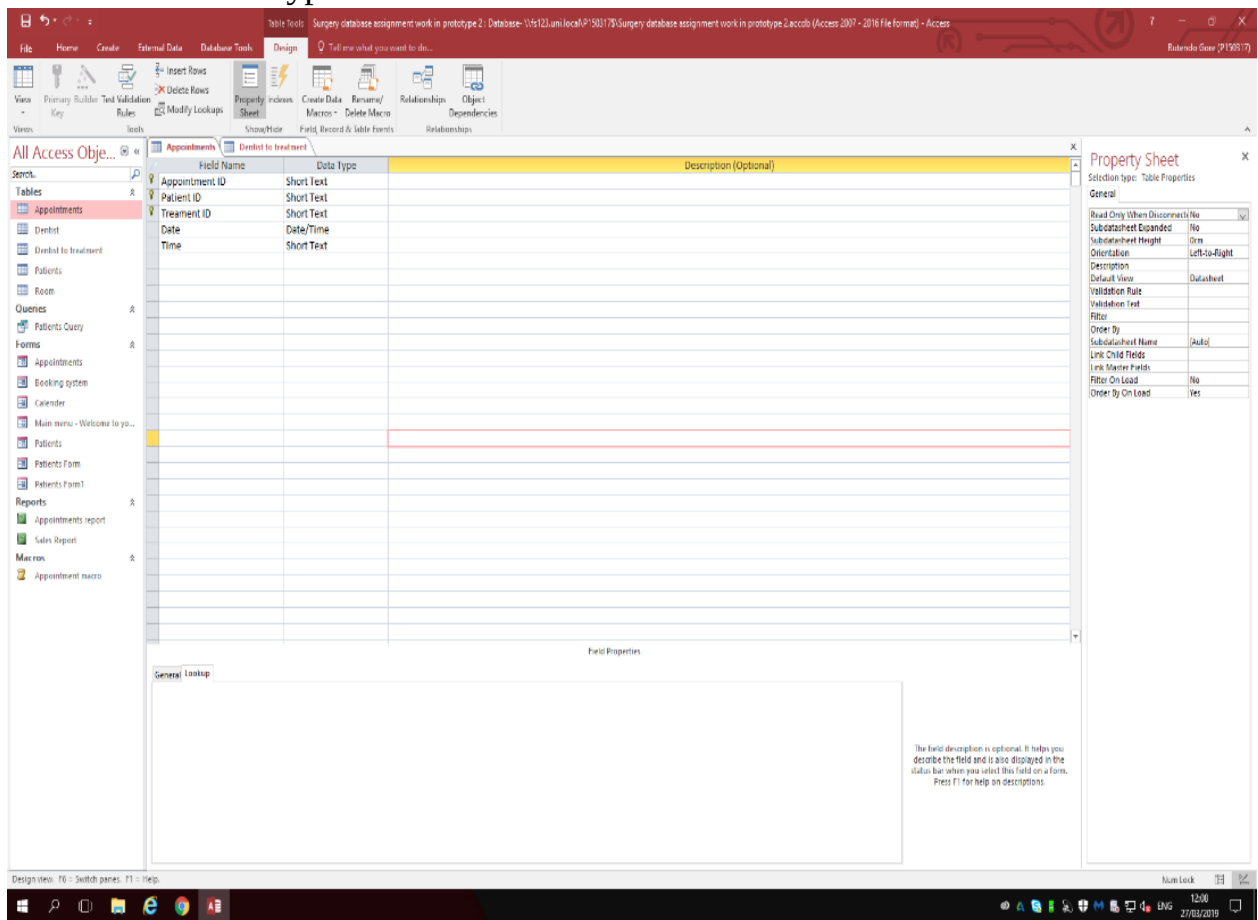
Appointment ID	Room	Patient ID	Dentist	Time	Date	Treatment
AP01	Consultation room 1	P01	Michelle Jones		14/03/2019	Simple Xrays
AP02	Consultation room 2	P02	Adam Saunders		14/03/2019	Amalgam filing
AP03	Consultation room 3	P05	Jeromey Blankets		14/03/2019	Crown
AP04	consultation room 4	P07	David Jones		15/03/2019	Dentures
AP05	Consultation room 5	P08	Matthew Whitaks		15/03/2019	New Patient
AP06	consultation room 6	P11	James Rhunes		15/03/2019	Hygiene Clean
AP07	Consultation room 1	P05	Michelle Jones		02/04/2019	Simple Xrays
AP08	Consultation room 2	P12	Adam saunders		03/04/2019	Amalgam filing
AP09	Consultation room 3	P12	Jeromey Blankets		29/03/2019	Crown
AP10	consultation room 4	P11	David Jones		29/03/2019	Dentures
AP11	Consultation room 5	P12	Matthew Whitaks		28/03/2019	New patient
AP12	consultation room 6	P12	James Rhunes		31/03/2019	Hygiene clean
AP13	Consultation room 1	P12	Michelle Jones		28/04/2019	Simple xrays
AP14	Consultation room 2	P02	Adam Saunders		27/03/2019	Amalgam filing
AP15	Consultation room 3	P11	Jeromey Blankets		25/04/2019	Crown
AP16	consultation room 4	P06	David Jones		30/04/2019	Dentures
AP17	Consultation room 5	P05	Matthew Whitaks		25/04/2019	New Patient
AP18	consultation room 6	P07	James Rhunes		24/04/2019	Hygiene clean
AP19	Consultation room 1	P09	Michelle Jones		30/04/2019	Simple Xray
AP20	Consultation room 2	P03	Adam Saunders		26/04/2019	Amalgam

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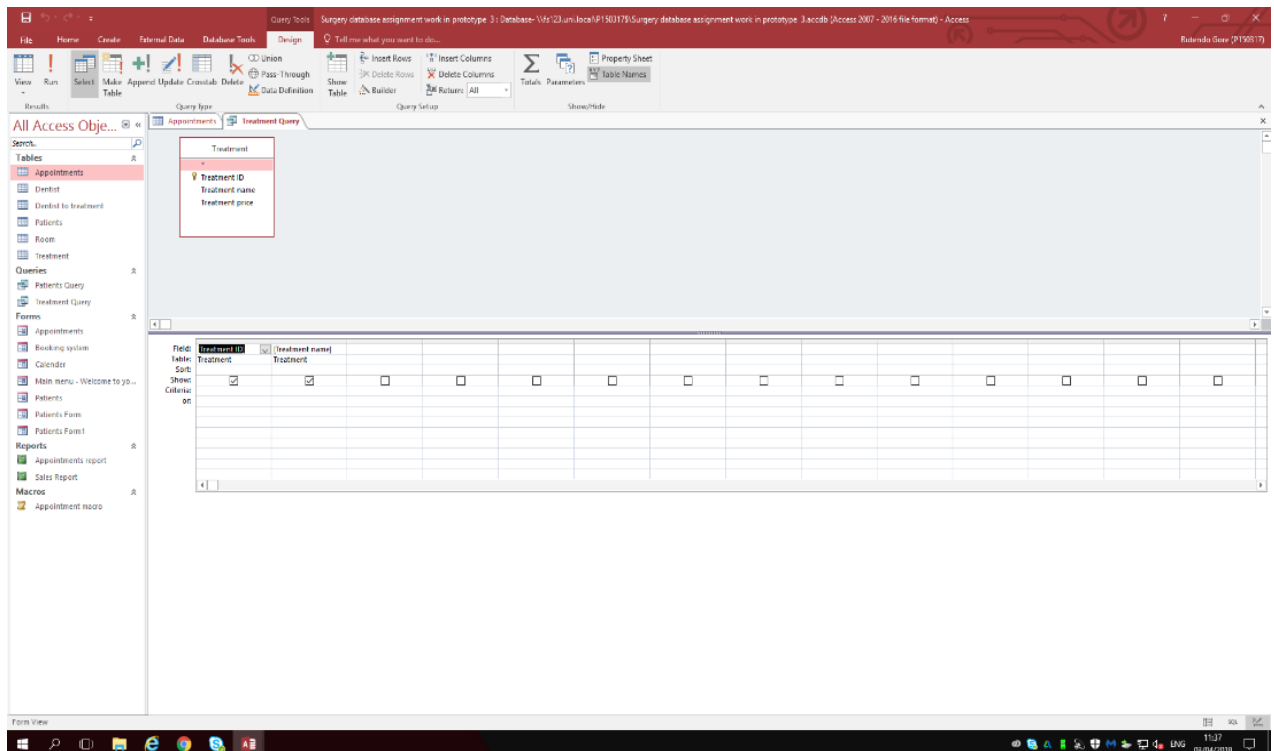
Report View

The screenshot shown above shows the appointment report, this screenshot shows all the appointments booked in the dental surgery which displays the appointment, the room number, the dentist performing the treatment, the date,

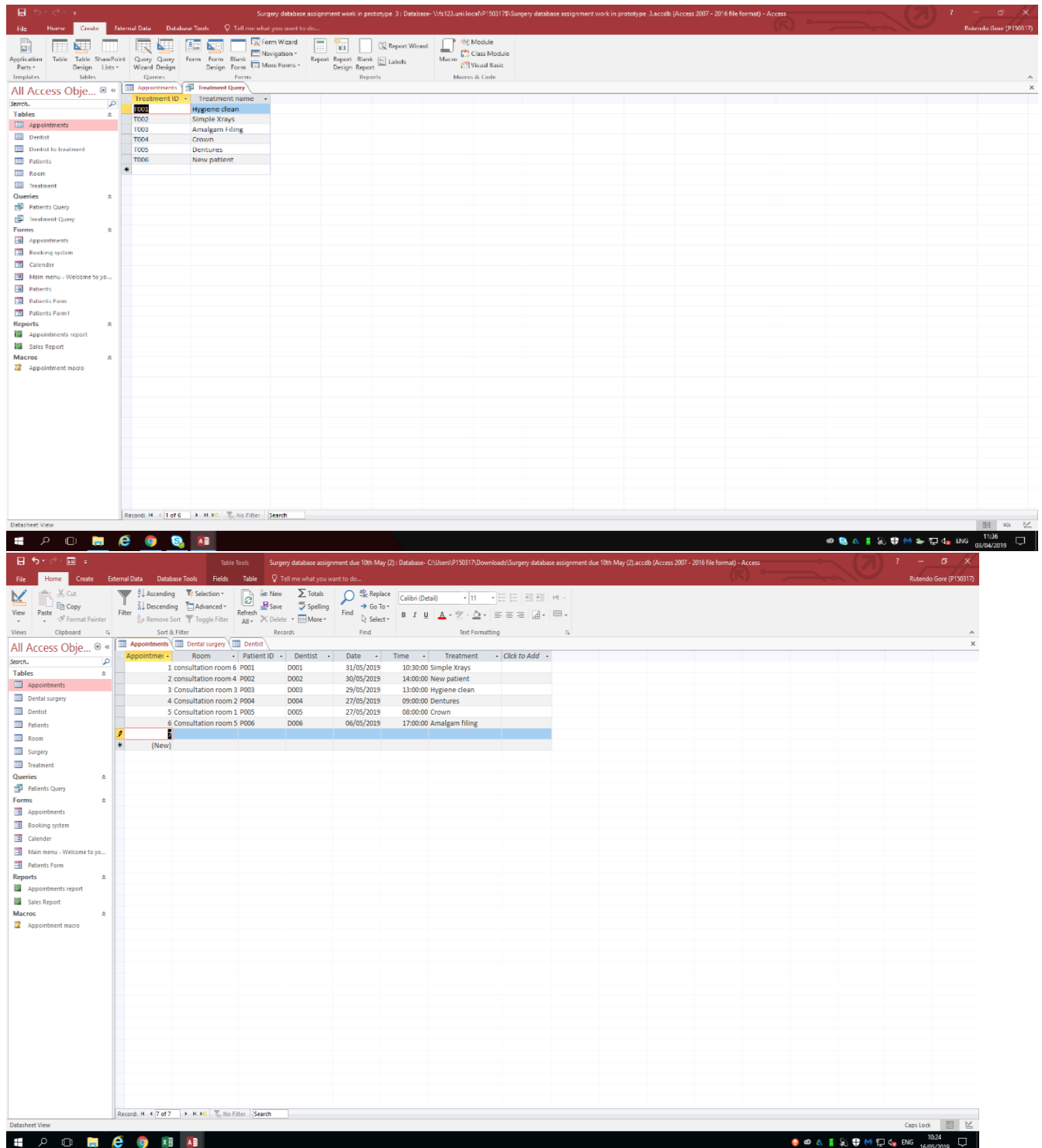
and the treatment type.



Queries selection

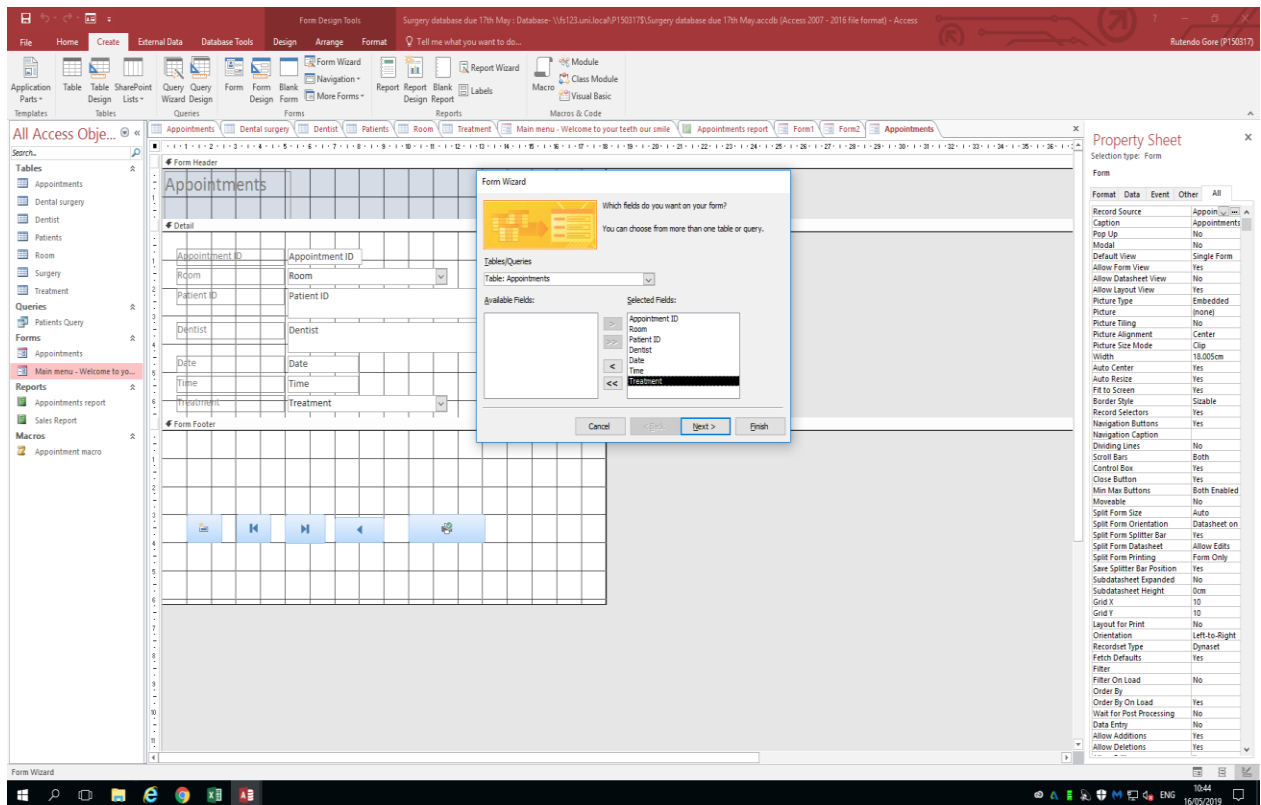


This query selection shows the treatment query, when the user clicks the run button within the database it will show the results.

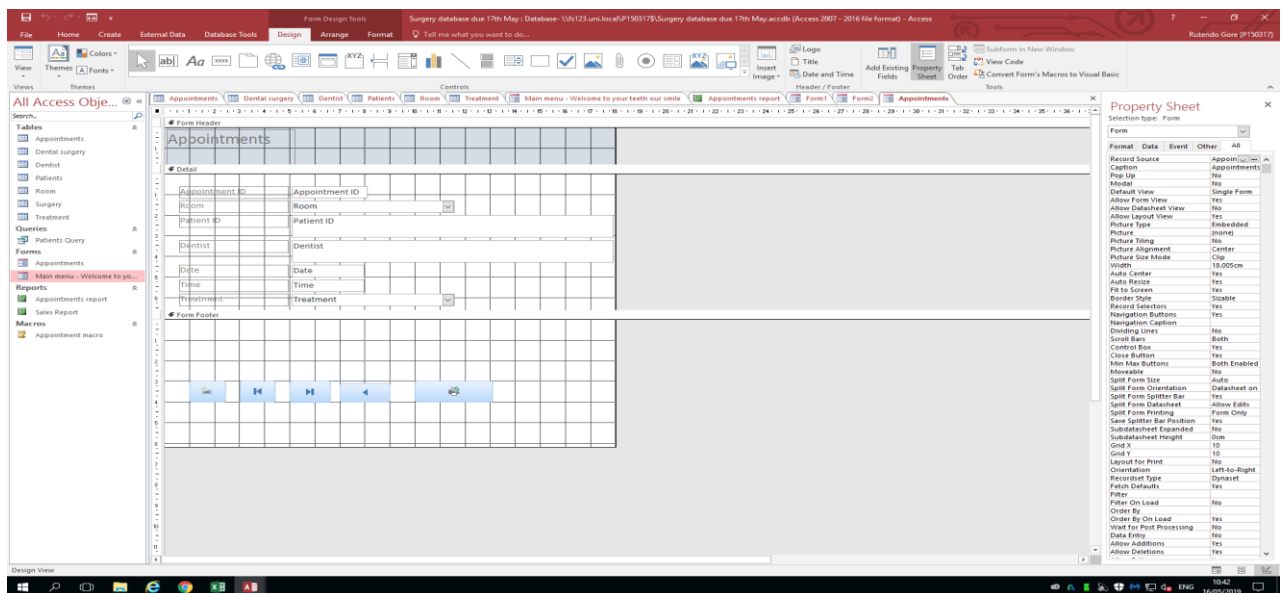


The screenshots above show the the tables with complete data within the database.

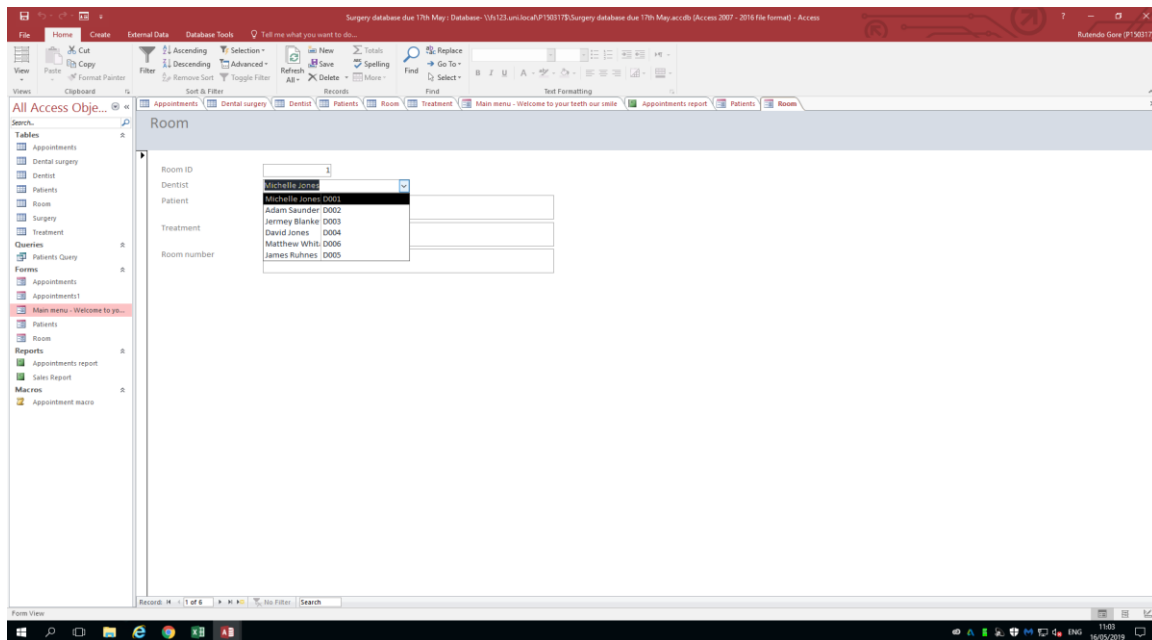
Creating forms



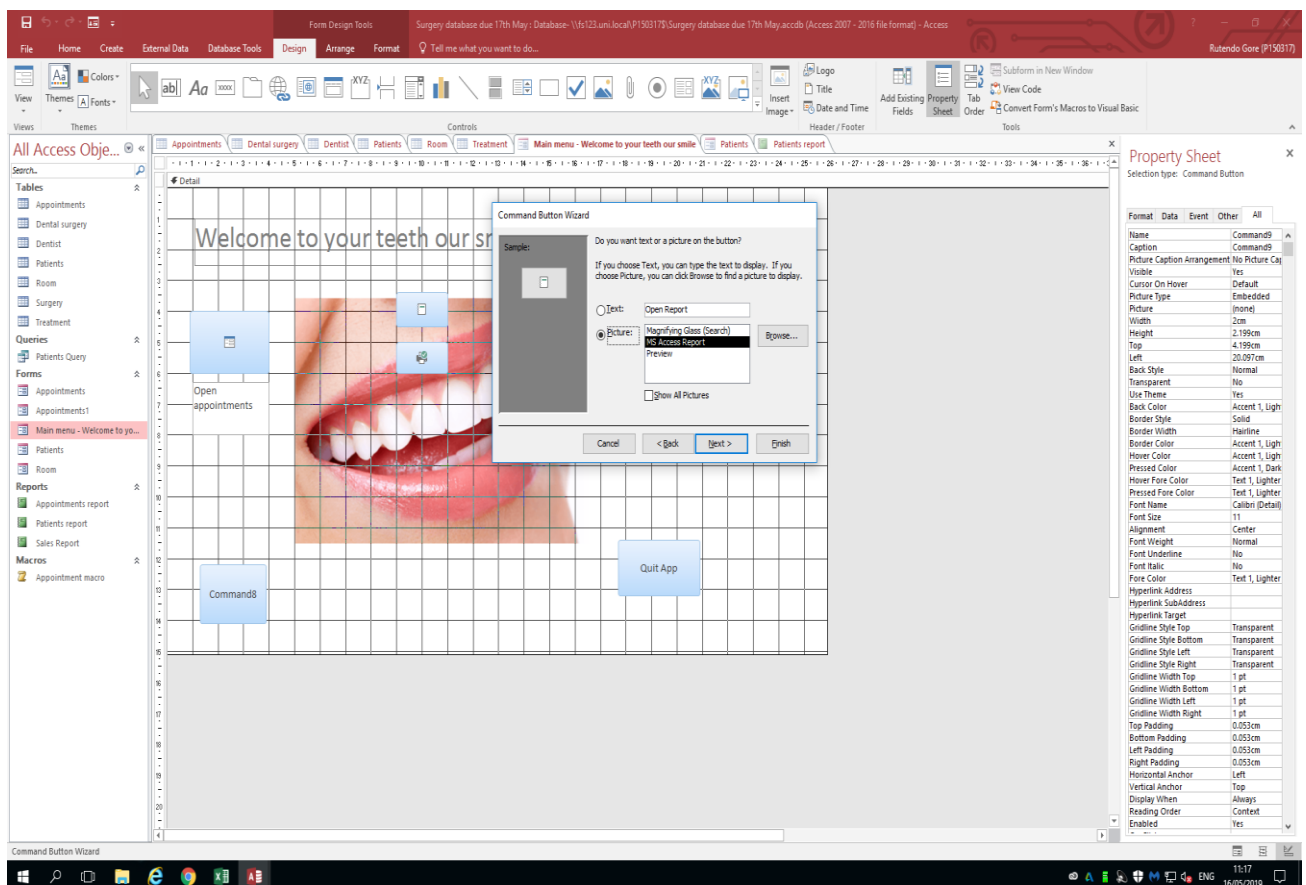
The screenshot shown above is the appointment form and buttons have been added to the form for user interaction and for the automation of the database.



This form was created through the form wizard and the screenshot of that process is shown above.



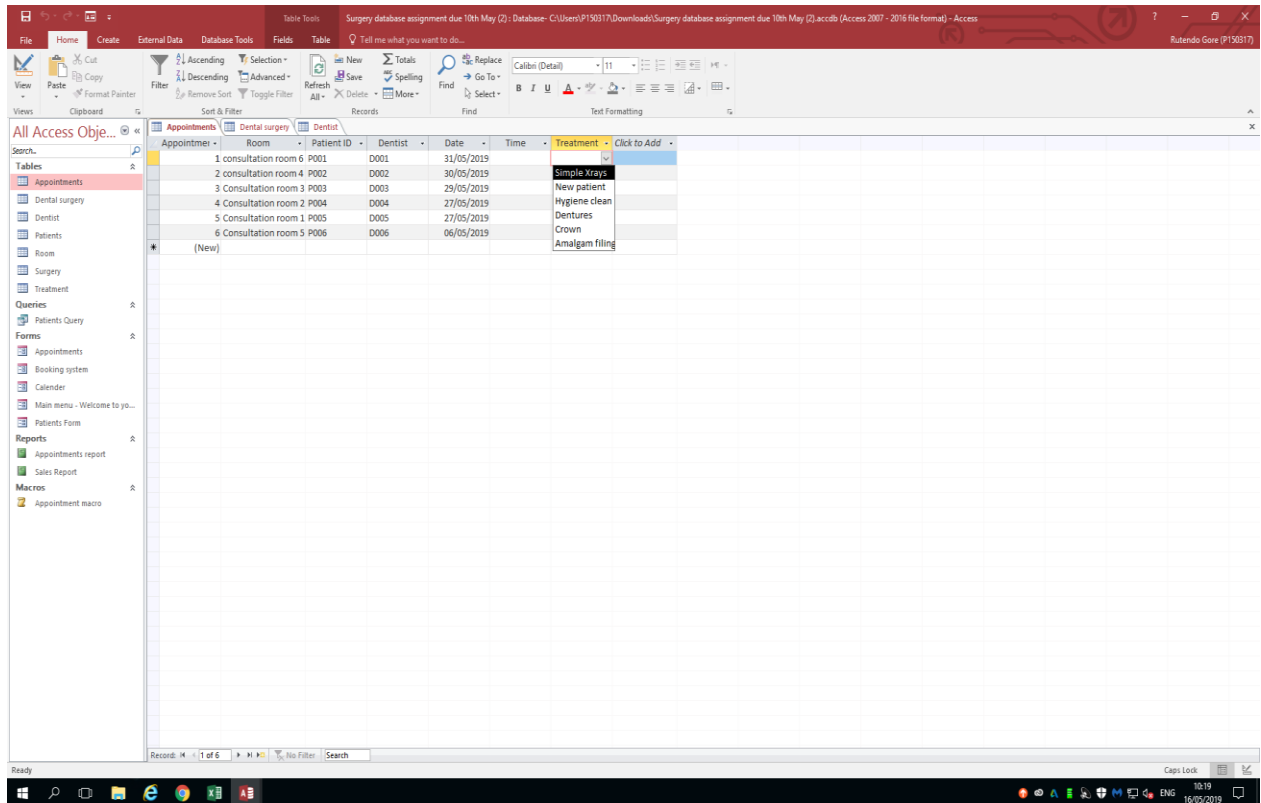
The screenshot above shows the room form, to select the room there is a dropdown menu which allows the user to interact with the form.



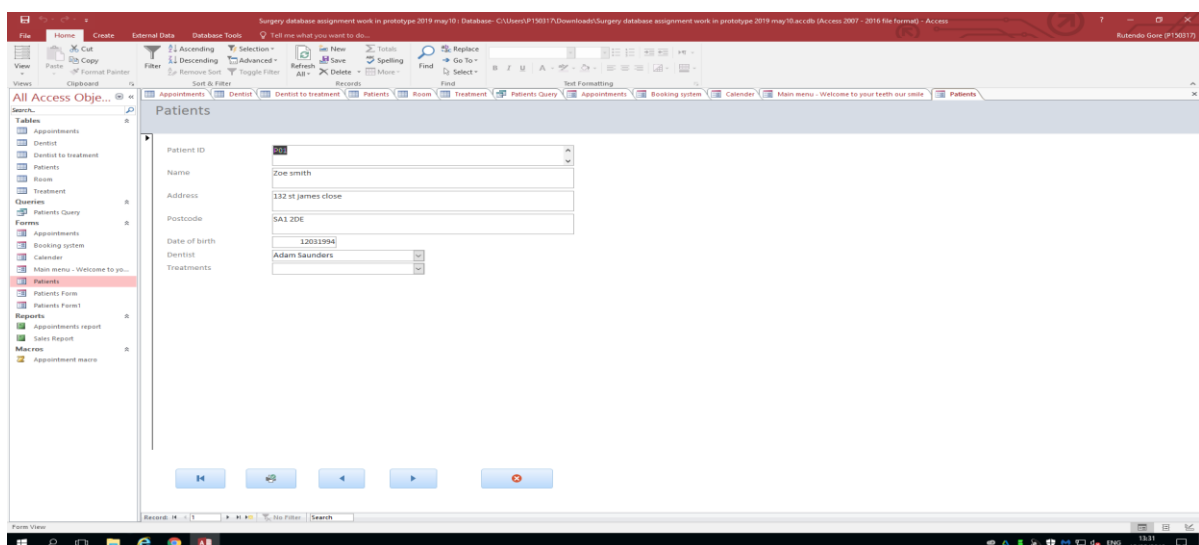
The screenshot above shows adding more command buttons to the main menu, from the main menu they navigate to other tables within the database. On the main menu there is a quit app button which will close the whole application

down and it would have to be reopened again from where the database is stored. The user can open the appointment report and patient report and they can also print records if they wish to open any records.

Opening patient report



The series of screenshots shown below show the patients form with different patient records within the dental surgery database. The buttons at the bottom of the form are for the automation of database for your teeth our smile. The buttons allow automation for the database and user interaction for the user.



This screenshot shows the Microsoft Access application window titled "Surgery database assignment work in prototype 2019 may10". The database is "C:\Users\PT13017\Downloads\Surgery database assignment work in prototype 2019 may10.accdb (Access 2007 - 2016 file format) - Access". The "Patients" form is displayed, showing the following data:

Patient ID	20
Name	Daniel Radcliffe
Address	10 Hartford lane
Postcode	SA14 1QS
Date of birth	25011996
Dentist	David Jones
Treatments	

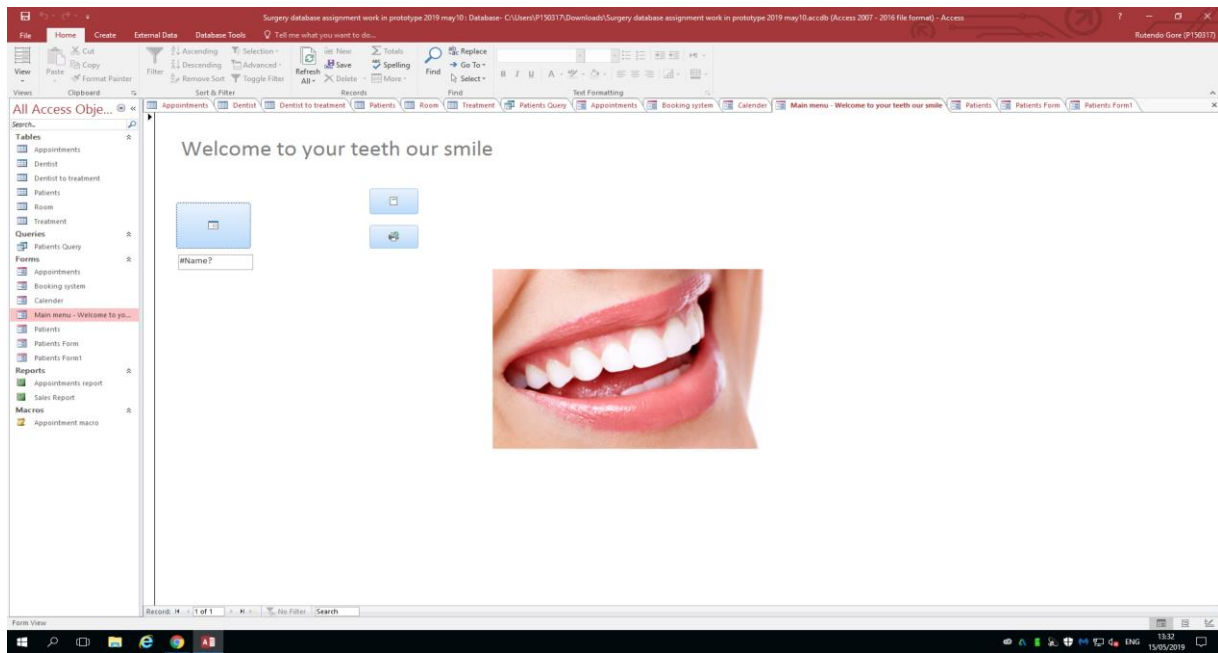
The left-hand pane shows the "All Access Objects" list, with "Patients" selected under the "Forms" category. The status bar at the bottom indicates "Record: 14 of 15".

This screenshot shows the Microsoft Access application window with the same database. The "Patients" form is displayed, showing the following data:

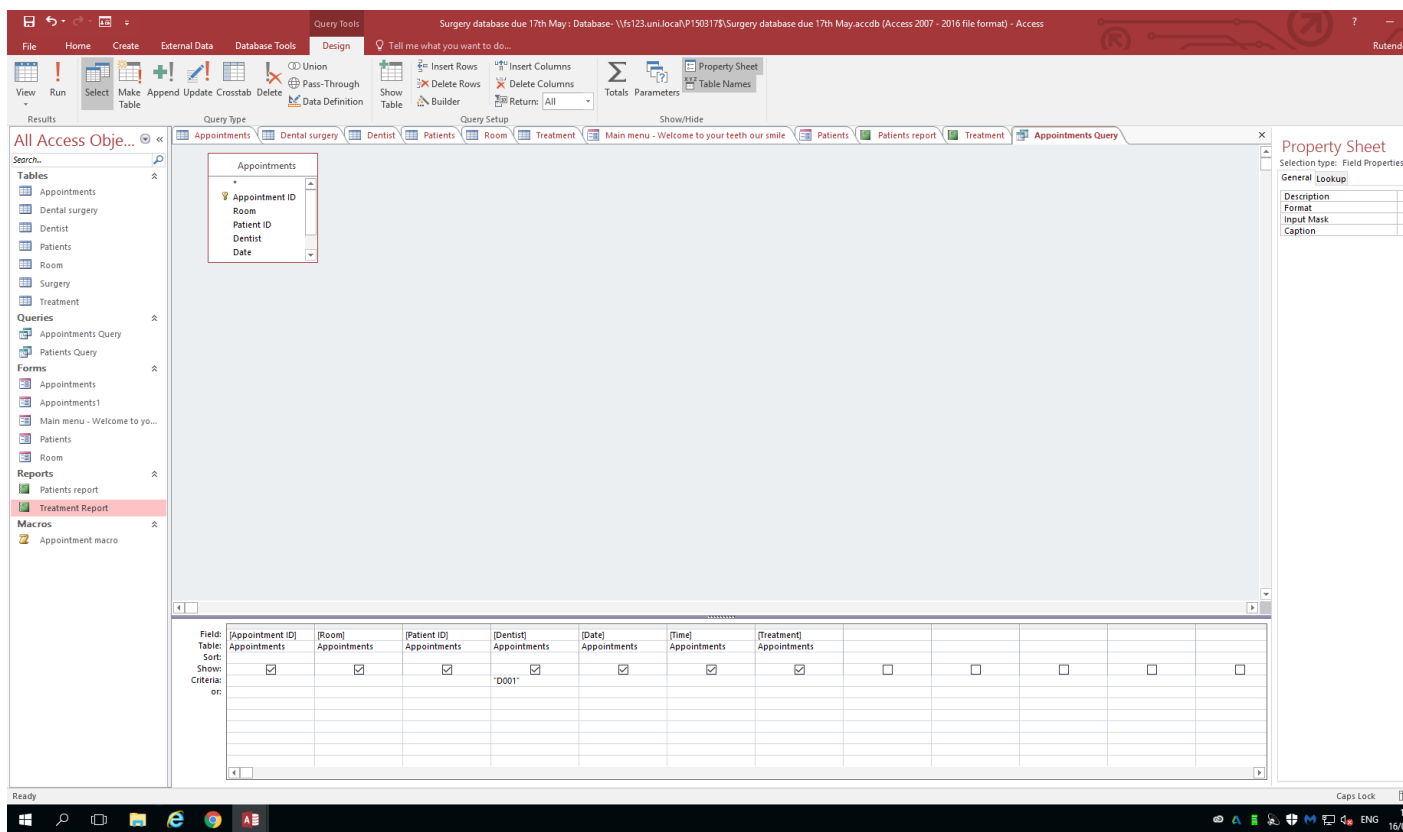
Patient ID	21
Name	Simon Downshire
Address	11 Keswick Avenue
Postcode	SA15 1DW
Date of birth	24031990
Dentist	Adam Saunders
Treatments	

The left-hand pane shows the "All Access Objects" list, with "Patients" selected under the "Forms" category. The status bar at the bottom indicates "Record: 14 of 15".

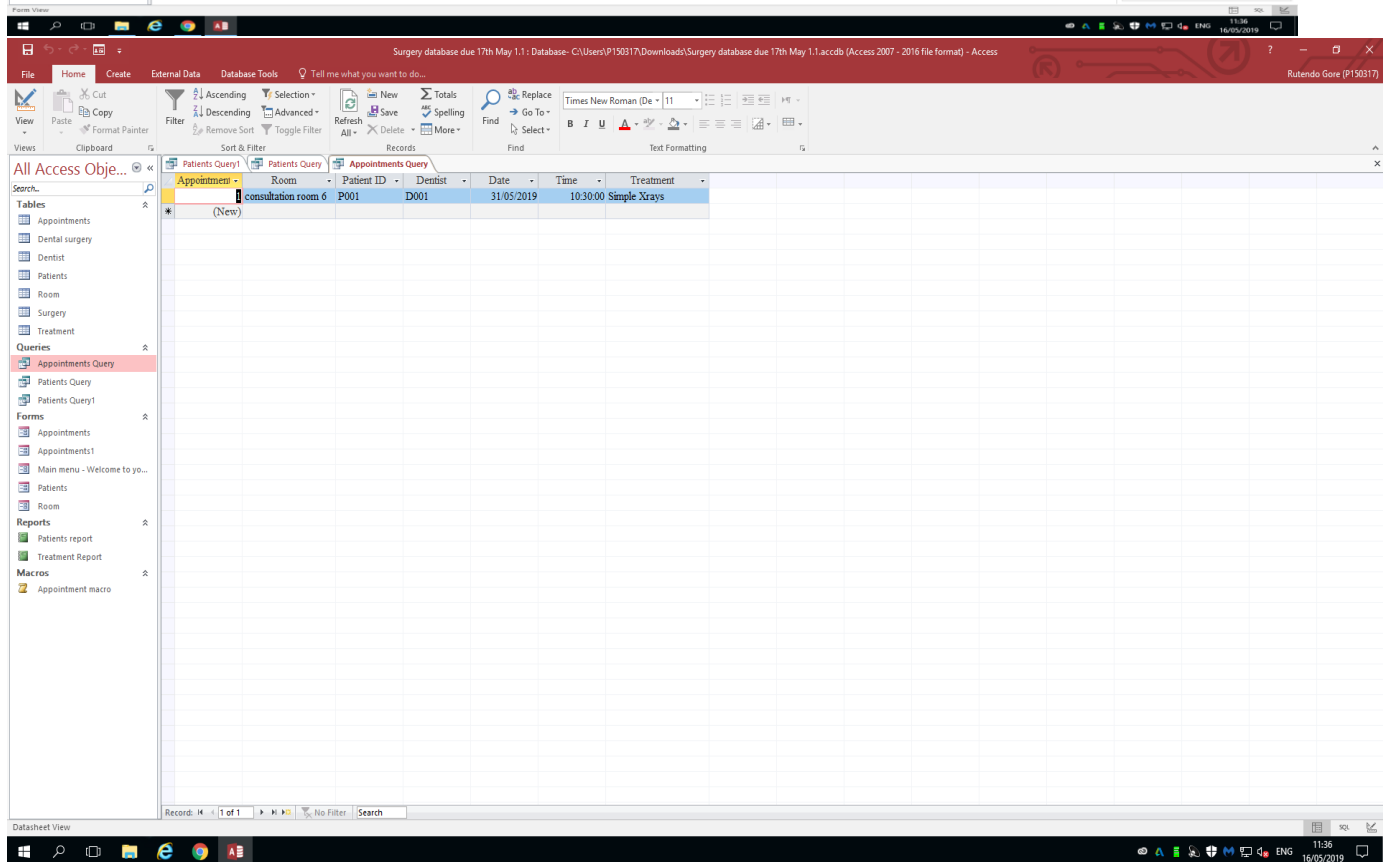
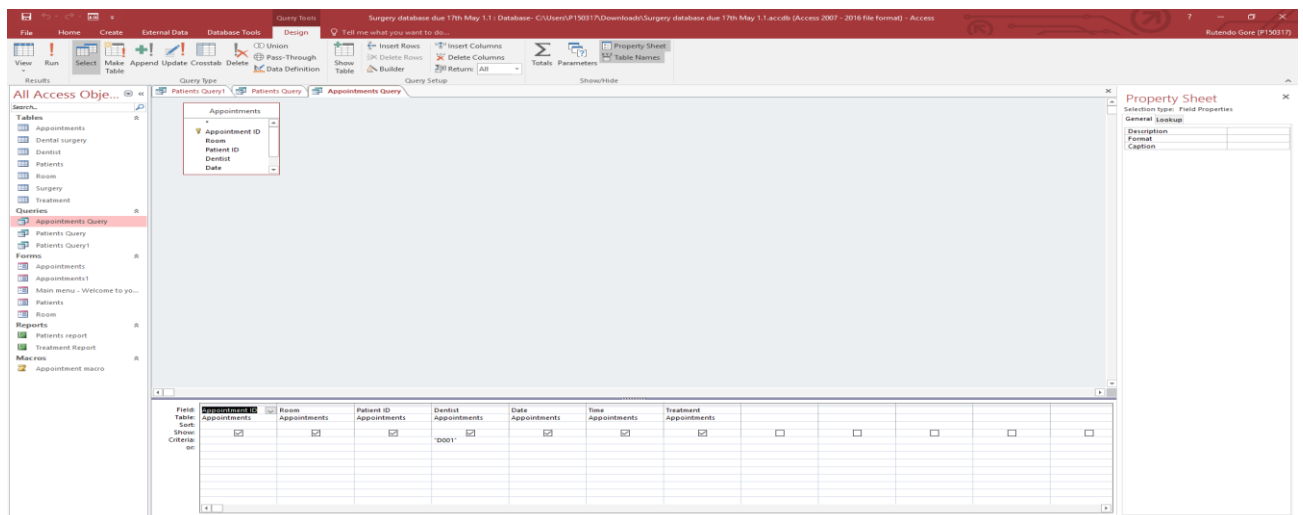
The screenshot shown below shows the main menu of your teeth our smile main menu.



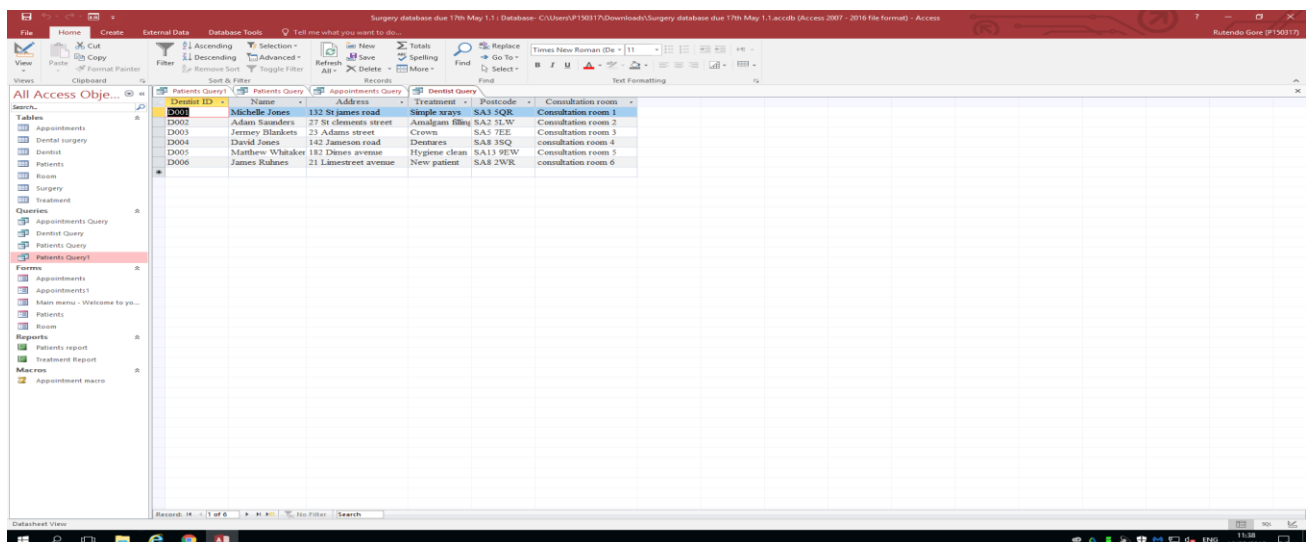
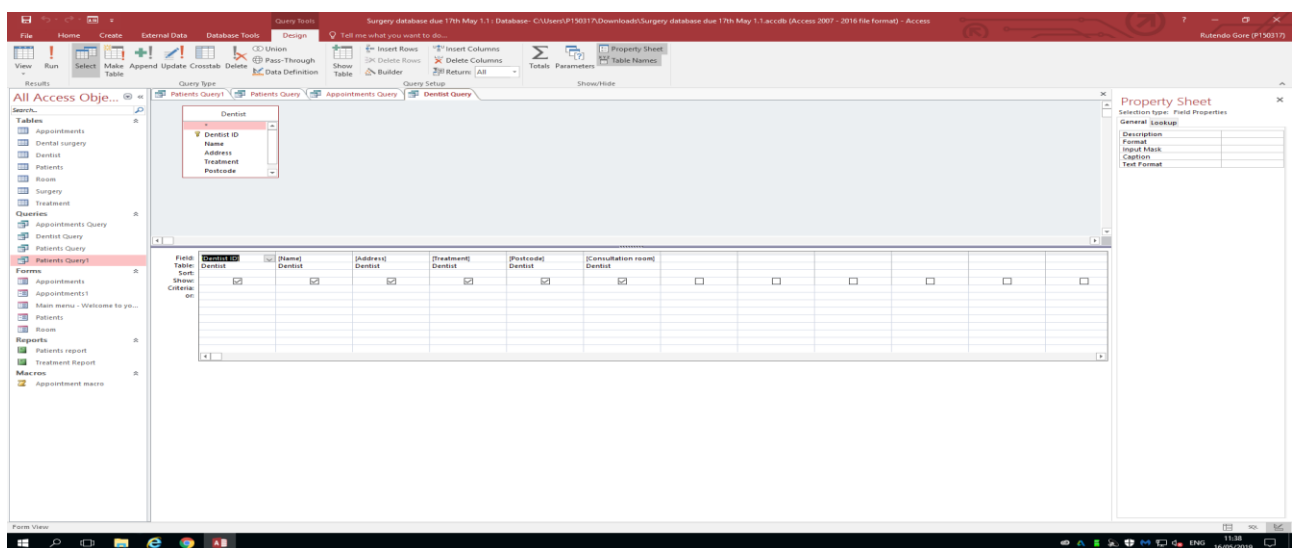
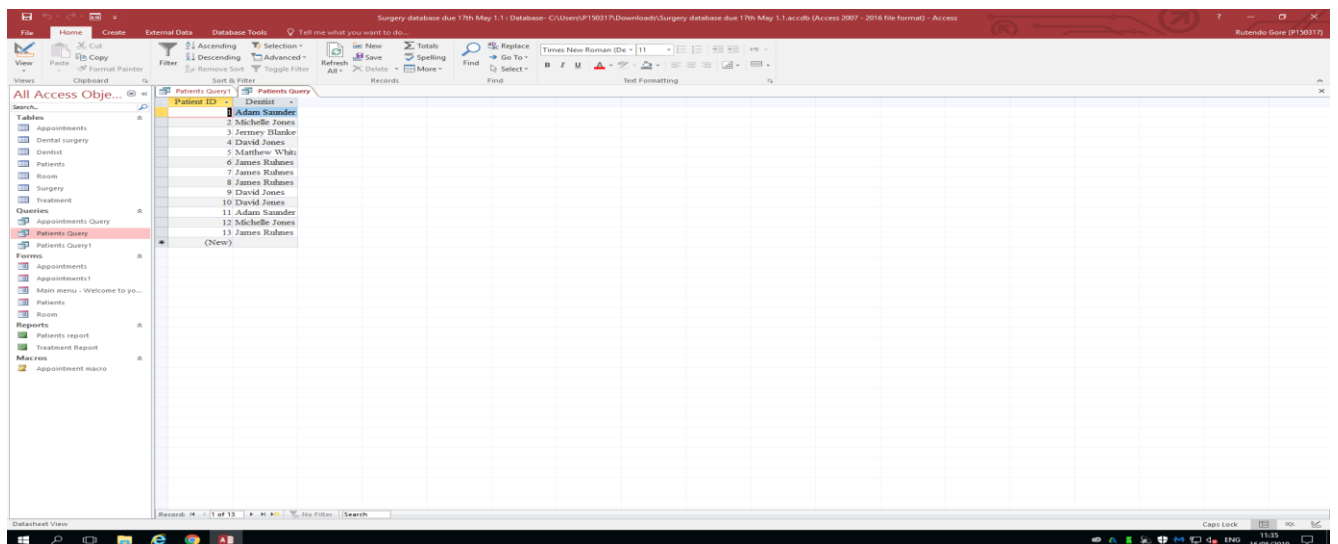
Creating queries



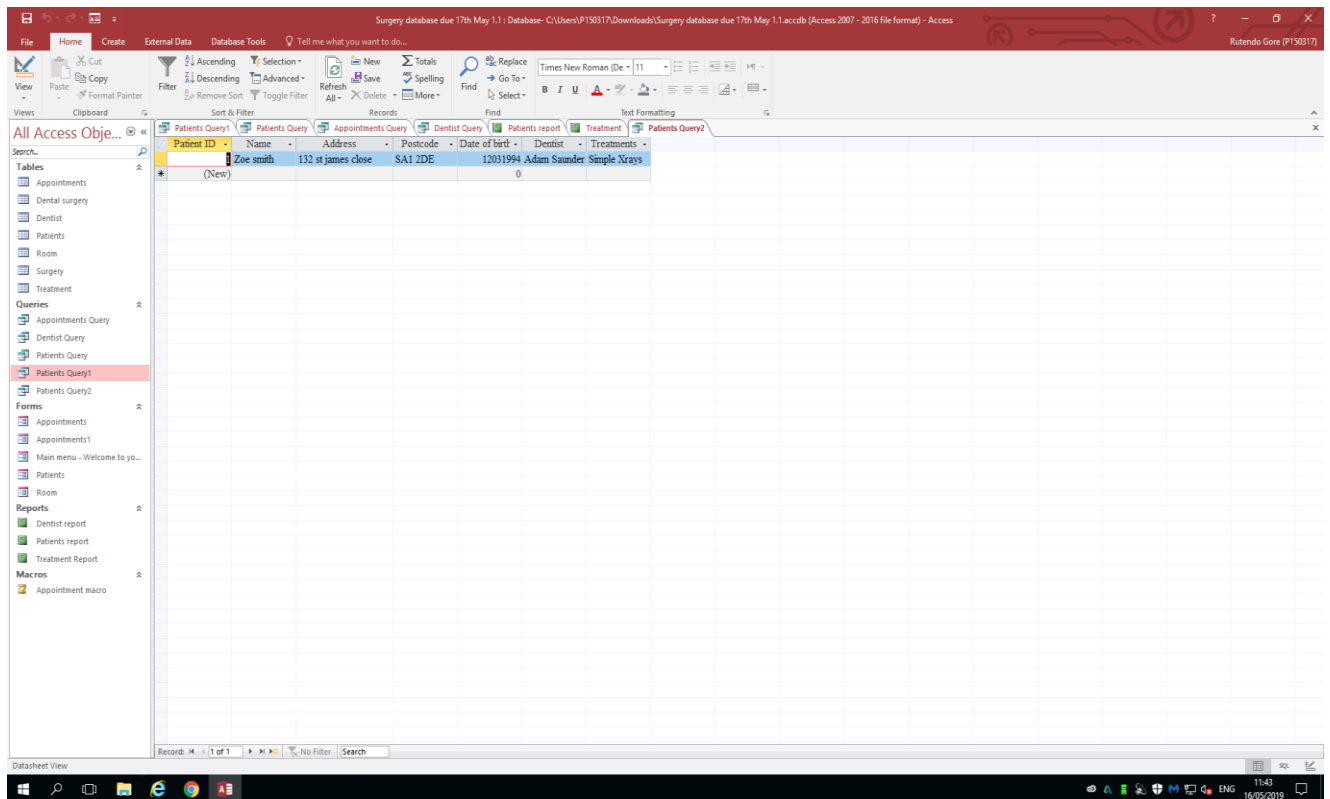
The screenshot above shows the dentist field has been identified and a specific value has been requested to be found, the result of the query are shown in the screenshot below.



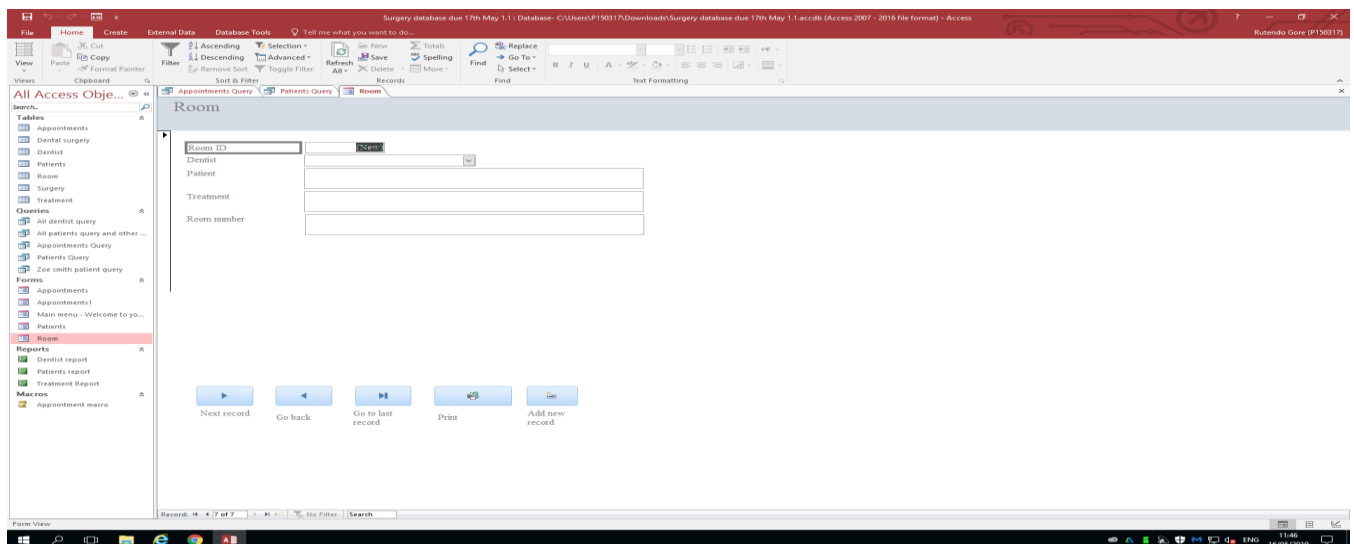
This screenshots below shows the patient query in the query wizard format, the screenshot below shows the results of the query search which is all the patients within the dental surgery.



The screenshot shown below shows the query search for one patient, this patient is Zoe smith and the records for this patient are shown above.

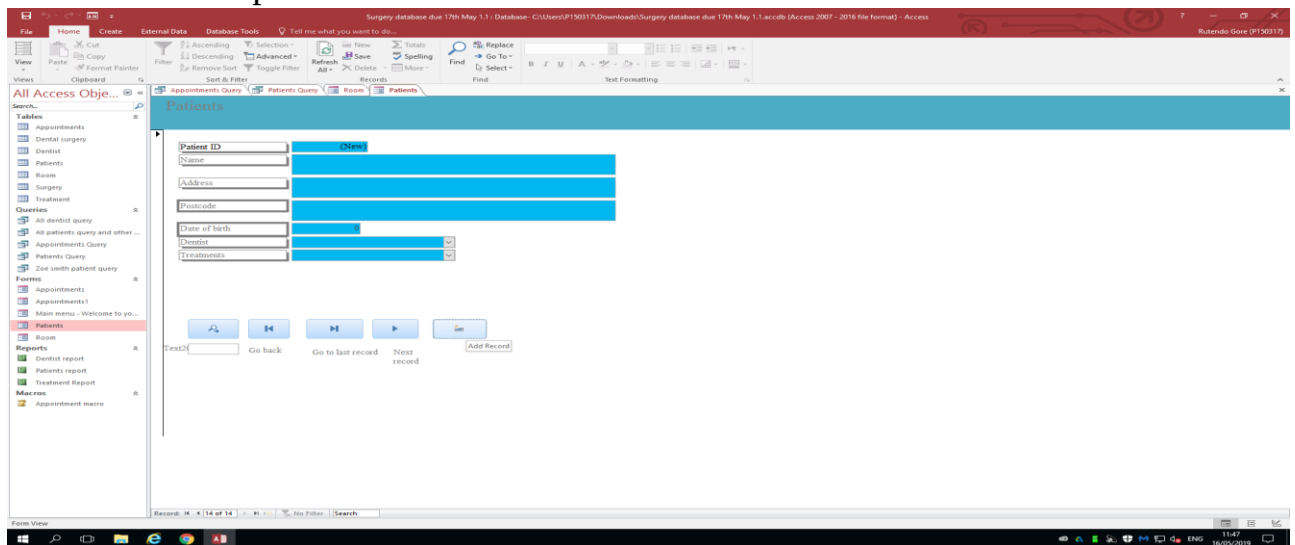


The screenshot shows the room form, there are buttons at the bottom of the form that can help the user navigate through the form. They can add new records within the form that is one of the automation buttons that are shown their.

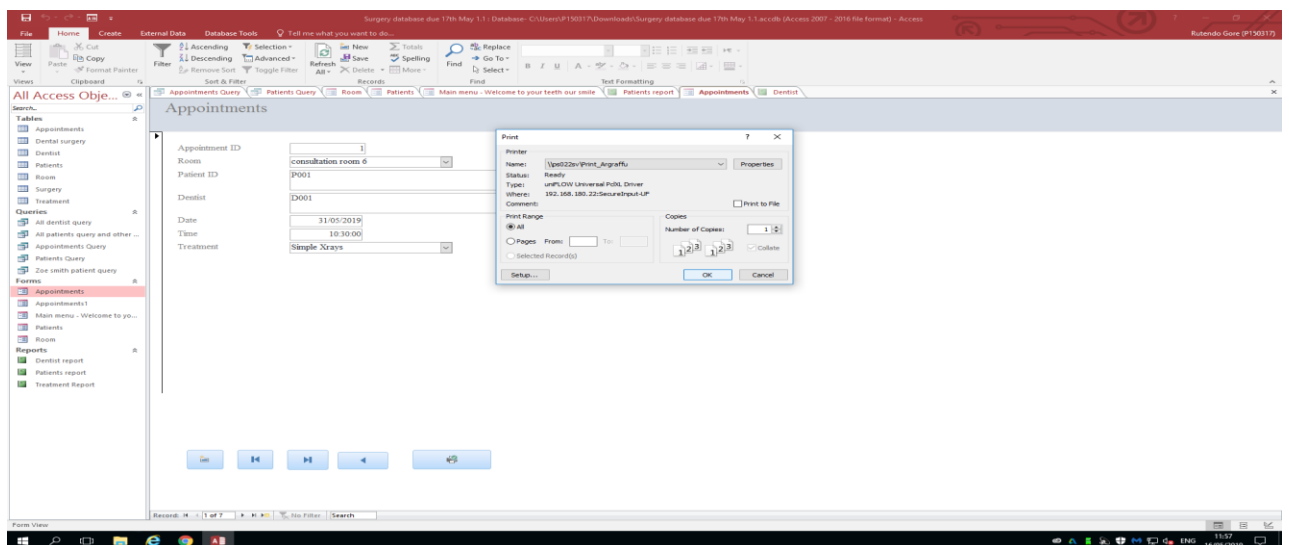


This screenshot shows the patient form, there are buttons at the bottom that allow the user to navigate throughout the forms and see each individual record

and there is an option to add a new record.



This screenshot shows the ability to print the appoint form if the user wishes to print out the form to see it on a paper format.



Query search for Michelle Jones

The screenshot shows the Microsoft Access interface with the 'Surgery database' open. The 'All Access Objects' pane on the left lists various objects, including Tables, Queries, Forms, and Reports. The 'Queries' section is expanded, and the 'All dentist query' is selected. The main window displays the results of this query in a table view. The table has six columns: Dentist ID, Name, Address, Treatment, Postcode, and Consultation room. A single record is visible for Michelle Jones, with Dentist ID 1001, Address 132 St James road, Treatment Single trays, Postcode SA3 5QR, and Consultation room 1.

Dentist ID	Name	Address	Treatment	Postcode	Consultation room
1001	Michelle Jones	132 St James road	Single trays	SA3 5QR	Consultation room 1