



CS 432
Databases

Assignment III

Implementing a Web App using MySQL

QUERY CRAFTERS

Group Members

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Project Description

The project's objective was to create a robust web application using Flask and MySQL to effectively manage the IITGN dispensary operations. Divided into two distinct teams, G1 and G2, each group was assigned specific responsibilities. G1 focused on the front-end development aspect, where they were tasked with creating an intuitive user interface. Leveraging technologies like Bootstrap, HTML, and CSS, G1 designed a visually appealing interface that facilitated seamless interaction between users and the database. Through strategically crafted forms and buttons, users could effortlessly perform actions such as adding, updating, and deleting records, ensuring a smooth and user-friendly experience.

On the other hand, G2 took charge of the back-end development, implementing the necessary functionality to interact with the MySQL database. Utilizing Flask, G2 took responsibility for executing database functions such as inserting new records, updating existing ones, deleting records, and executing queries with WHERE clauses. By meticulously implementing these endpoints, G2 ensured that the application's core functionalities were robust, efficient, and capable of effectively handling the dispensary's data management needs.

A crucial aspect of the project was the design and implementation of the database schema, which served as the foundation for the entire application. The schema encompassed essential entities such as products, suppliers, employees, customers, and transactions, ensuring that all relevant information pertinent to the dispensary's operations was systematically organized and stored. This meticulous approach to database design laid the groundwork for the seamless execution of CRUD operations and dynamic query execution, empowering users to manage dispensary-related data easily.

To uphold the security and integrity of the application, user authentication was implemented as a vital component. Through a carefully crafted login page, users and stakeholders were prompted to authenticate themselves by entering valid credentials. Upon successful authentication, authorized users were seamlessly redirected to the application's main page, where they could leverage its functionalities to manage dispensary operations efficiently. This stringent authentication mechanism safeguarded sensitive data and ensured that only authorized personnel could access and interact with the application, thereby enhancing overall security and confidentiality.

After completing development, the team thoroughly tested the application to confirm the proper functioning of all features and ensure that modifications made via the application are accurately updated in the main database and web page. Following successful testing, the application was then pushed to GitHub.

Installation requirements to run this project:

- `python3 -m venv env_flask`
- `pip install flask`
- `pip install pymysql`

Modules used

To run this project, the following modules need to be added


- `from flask import Flask, render_template, jsonify, request, redirect, url_for`
- `import pymysql`
- `import config`

Note: MySQL Server(workbench) should be installed on the PC. Dump the “dispensary1.sql” in the same directory.

Steps to Launch the website:

- Move all the files in one folder. Open folder as code in VS Code.
- Create virtual environment "myenv" using command “`python -m venv myenv`”
- Activate environment using command “`myenv/Scripts\activate`”
- Install required libraries (mentioned above)
- Run the “app.py” file using command “`python app.py`”
- Click on the URL


You will be directed to the login page after executing all the commands.



Welcome to IITGN Dispensary

The image attached above shows the layout of the login page.

New users can create their account by clicking “New User? Create an account Here!”. This will redirect them to the registration page.




Welcome to IITGN Dispensary

New User Registration

The image above shows the layout of the registration page.

Users are required to register using their Email address. They also need to select authority as per their position.



Welcome to IITGN Dispensary

New User Registration ✕

Email Address
klm@gmail.com





Password
....

Staff ▼

Register

The image above shows a new user registering in the database.

```
7 )
8 select * from Authentication;
```

Result Grid |  Filter Rows: | Edit:    | Export/Import

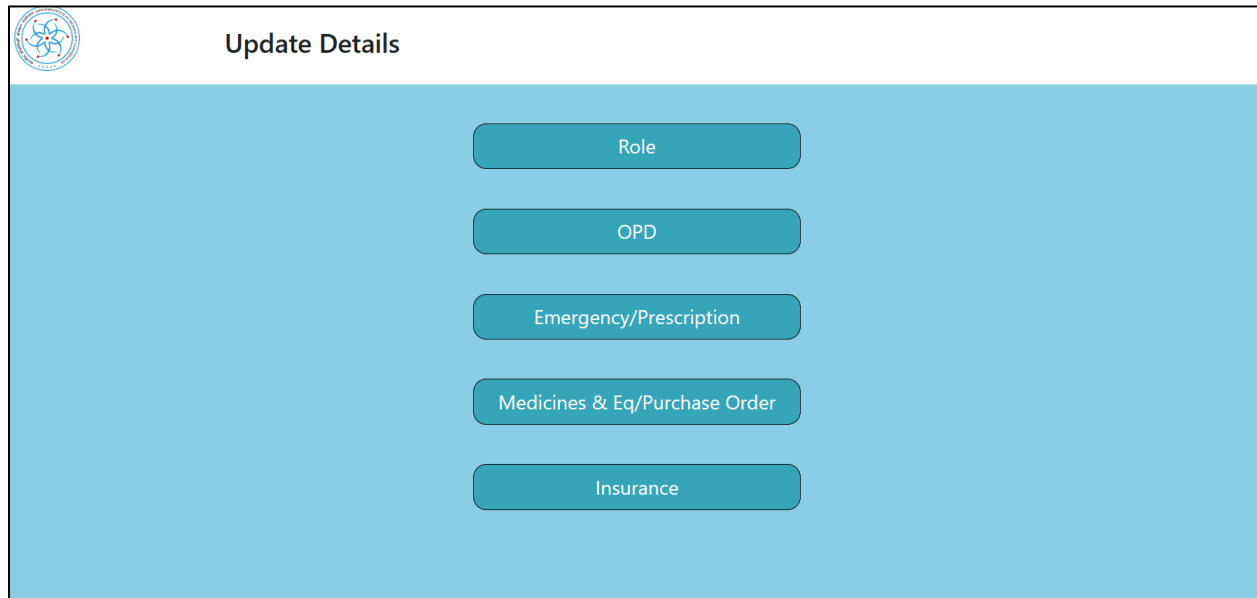
Email	Password	redirect_to
abc@gmail.com	1234	index
klm@gmail.com	1234	index
xyz@gmail.com	1234	index
NULL	NULL	NULL

The image above shows a new user (klm@gmail.com) registered in the database.

After successful registration, the user is redirected to the login page, where he can use his login credentials to access the database as per the authority.

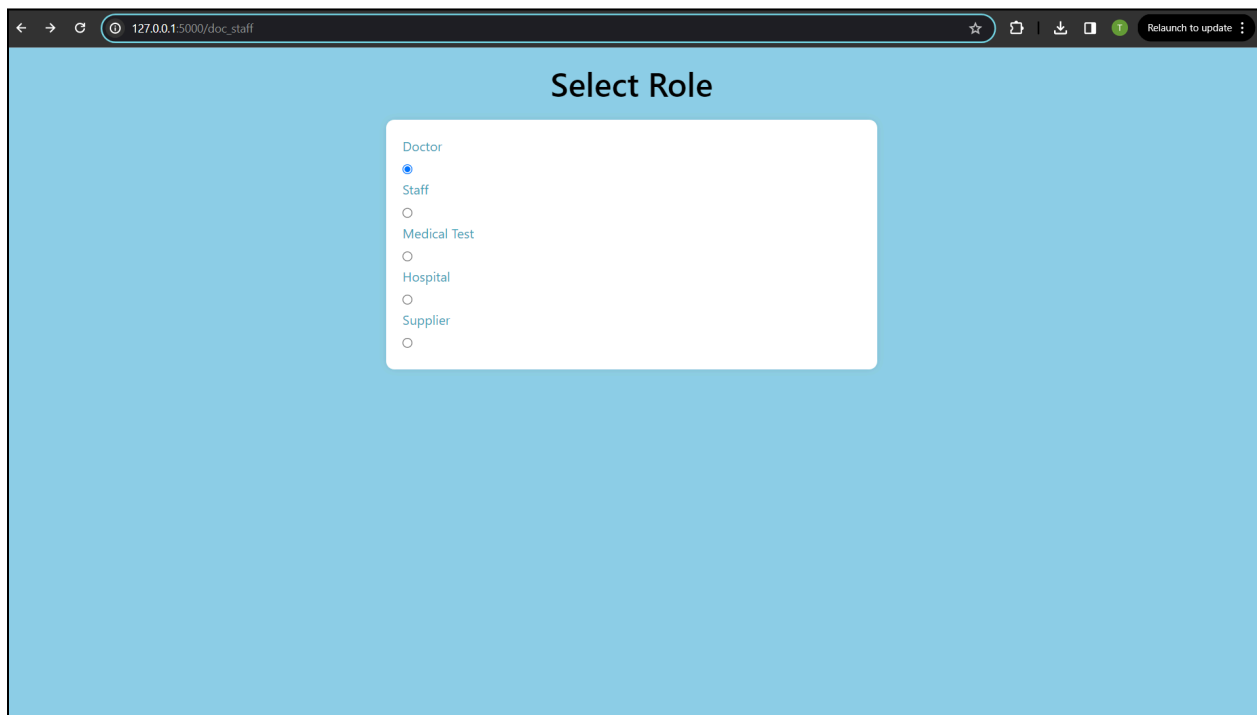
Existing users can log in to the database using their credentials.

After login, users are redirected to the “Homepage” of the website.



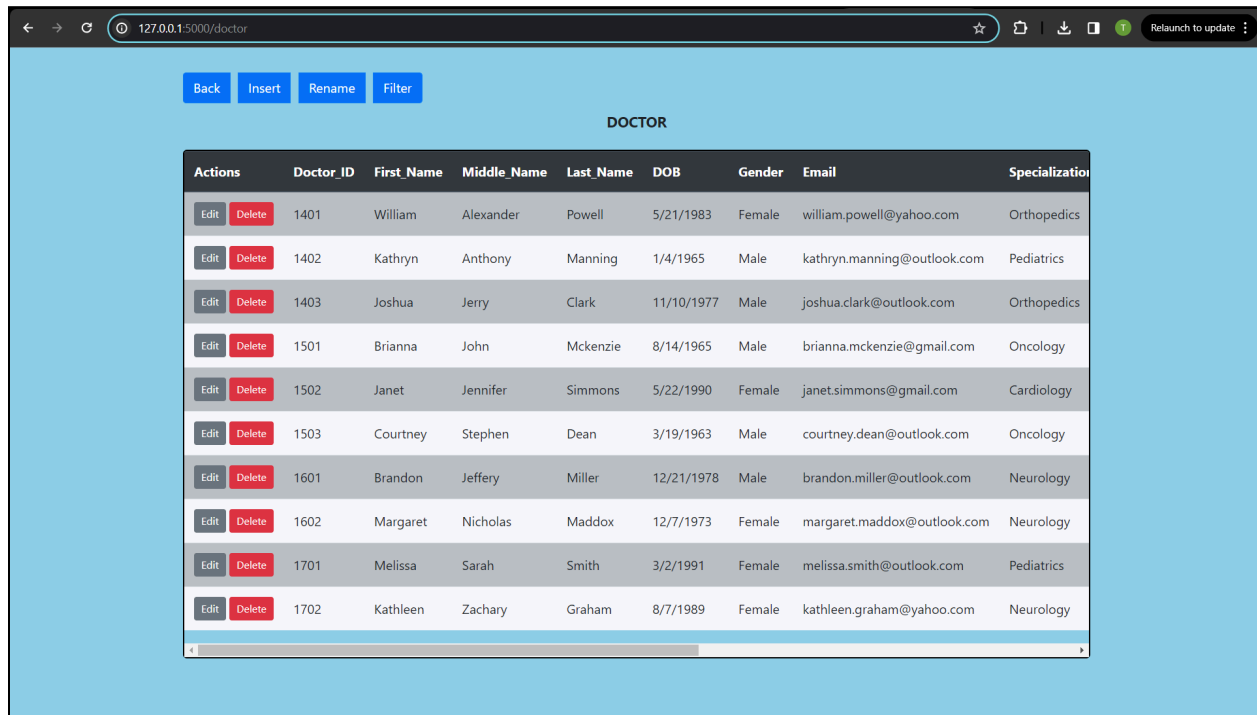
The home page contains five options, as shown in the attached image. considering that the user selects the “Role” option on the home page.

Now, the user will be redirected to the page shown below.



Now, the user can access the tables in our database per their authority by clicking the radio buttons shown above.

Now, if the user selects the “Doctor” table, he will be redirected to the page where they can access the “Doctor” table.



Actions	Doctor_ID	First_Name	Middle_Name	Last_Name	DOB	Gender	Email	Specialization
Edit Delete	1401	William	Alexander	Powell	5/21/1983	Female	william.powell@yahoo.com	Orthopedics
Edit Delete	1402	Kathryn	Anthony	Manning	1/4/1965	Male	kathryn.manning@outlook.com	Pediatrics
Edit Delete	1403	Joshua	Jerry	Clark	11/10/1977	Male	joshua.clark@outlook.com	Orthopedics
Edit Delete	1501	Brianna	John	Mckenzie	8/14/1965	Male	brianna.mckenzie@gmail.com	Oncology
Edit Delete	1502	Janet	Jennifer	Simmons	5/22/1990	Female	janet.simmons@gmail.com	Cardiology
Edit Delete	1503	Courtney	Stephen	Dean	3/19/1963	Male	courtney.dean@outlook.com	Oncology
Edit Delete	1601	Brandon	Jeffery	Miller	12/21/1978	Male	brandon.miller@outlook.com	Neurology
Edit Delete	1602	Margaret	Nicholas	Maddox	12/7/1973	Female	margaret.maddox@outlook.com	Neurology
Edit Delete	1701	Melissa	Sarah	Smith	3/2/1991	Female	melissa.smith@outlook.com	Pediatrics
Edit Delete	1702	Kathleen	Zachary	Graham	8/7/1989	Female	kathleen.graham@yahoo.com	Neurology

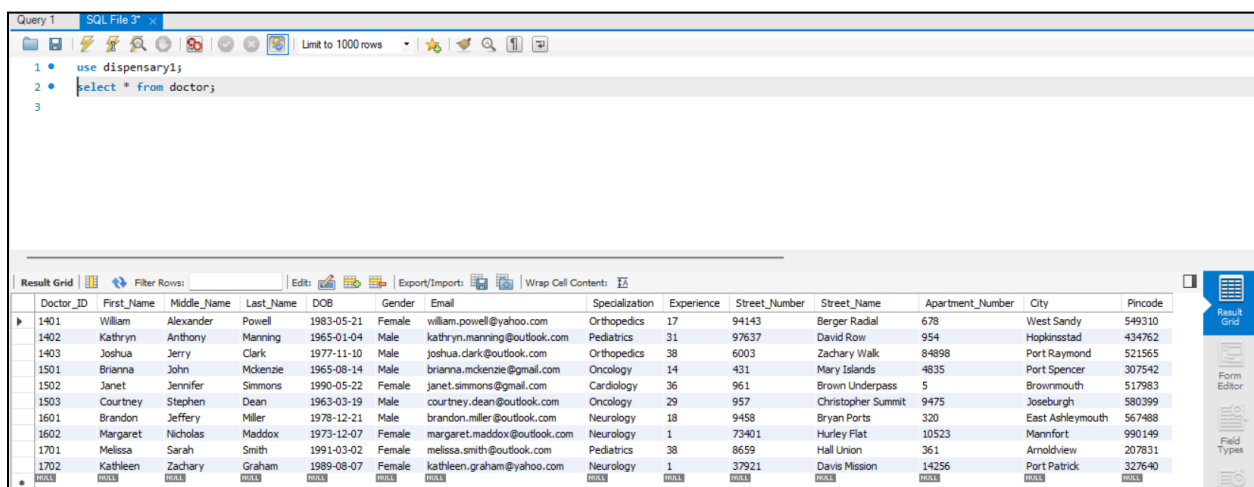
The image above shows the doctor table page of our database.

This page has multiple options like

- Rename
- Filter
- Insert
- Edit
- Delete

Insert

If the user wants to insert a new entry in the database, they can do so by clicking the “Insert” option.



```
Query 1 SQL File 3*
1 • use dispensary1;
2 • select * from doctor;
3
```

Doctor_ID	First_Name	Middle_Name	Last_Name	DOB	Gender	Email	Specialization	Experience	Street_Number	Street_Name	Apartment_Number	City	Pncode
1401	William	Alexander	Powell	1983-05-21	Female	william.powell@yahoo.com	Orthopedics	17	94143	Berger Radial	678	West Sandy	549310
1402	Kathryn	Anthony	Manning	1965-01-04	Male	kathryn.manning@outlook.com	Pediatrics	31	97637	David Row	954	Hopkinsstad	434762
1403	Joshua	Jerry	Clark	1977-11-10	Male	joshua.clark@outlook.com	Orthopedics	38	6003	Zachary Walk	84898	Port Raymond	521565
1501	Brianna	John	Mckenzie	1965-08-14	Male	brianna.mckenzie@gmail.com	Oncology	14	431	Mary Islands	4835	Port Spencer	307542
1502	Janet	Jennifer	Simmons	1990-05-22	Female	janet.simmons@gmail.com	Cardiology	36	961	Brown Underpass	5	Brownmouth	517983
1503	Courtney	Stephen	Dean	1963-03-19	Male	courtney.dean@outlook.com	Oncology	29	957	Christopher Summit	9475	Joseburgh	580399
1601	Brandon	Jeffery	Miller	1978-12-21	Male	brandon.miller@outlook.com	Neurology	18	9458	Bryan Ports	320	East Ashleymouth	567488
1602	Margaret	Nicholas	Maddox	1973-12-07	Female	margaret.maddox@outlook.com	Neurology	1	73401	Hurley Flat	10523	Mannfort	990149
1701	Melissa	Sarah	Smith	1991-03-02	Female	melissa.smith@outlook.com	Pediatrics	38	8659	Hall Union	361	Arnoldview	207831
1702	Kathleen	Zachary	Graham	1989-08-07	Female	kathleen.graham@yahoo.com	Neurology	1	37921	Davis Mission	14256	Port Patrick	327640

Figure 6: The image above shows the existing entries in our database's "Doctor" table.

Users are redirected to the "Doctor Form" after clicking on the "Insert" tab.

Doctor Form

Doctor ID:

First Name:

Middle Name:

Last Name:

DOB:

dd-mm-yyyy

Gender:

Male

Email:

Phone Number:

Specialization:

Experience:

Street Number:

Street Name:

Apartment Number:

City:

Pincode:

Day:

Time:

Submit

Clear

After entering the required information in the "Doctor Form", new doctors are added in the database. This is shown in the image attached below.

127.0.0.1:5000/doctor

Back Insert Rename Filter

Doctor Form

Doctor ID: 1400

First Name: Twinkle

Middle Name: Premji

Last Name: Devda

DOB: 25-09-2003

Gender: Female

Email: twinkledavda2003@gmail

Phone Number: 8160810892

Specialization: Neurology

Record inserted successfully!

127.0.0.1:5000/doctor

Neurology

Experience: 2

Street Number: 31

Street Name: Palaj

Apartment: 324

City: Gandhinagar

Pincode: 382355

Day: Thursday

Time: 03:07:00

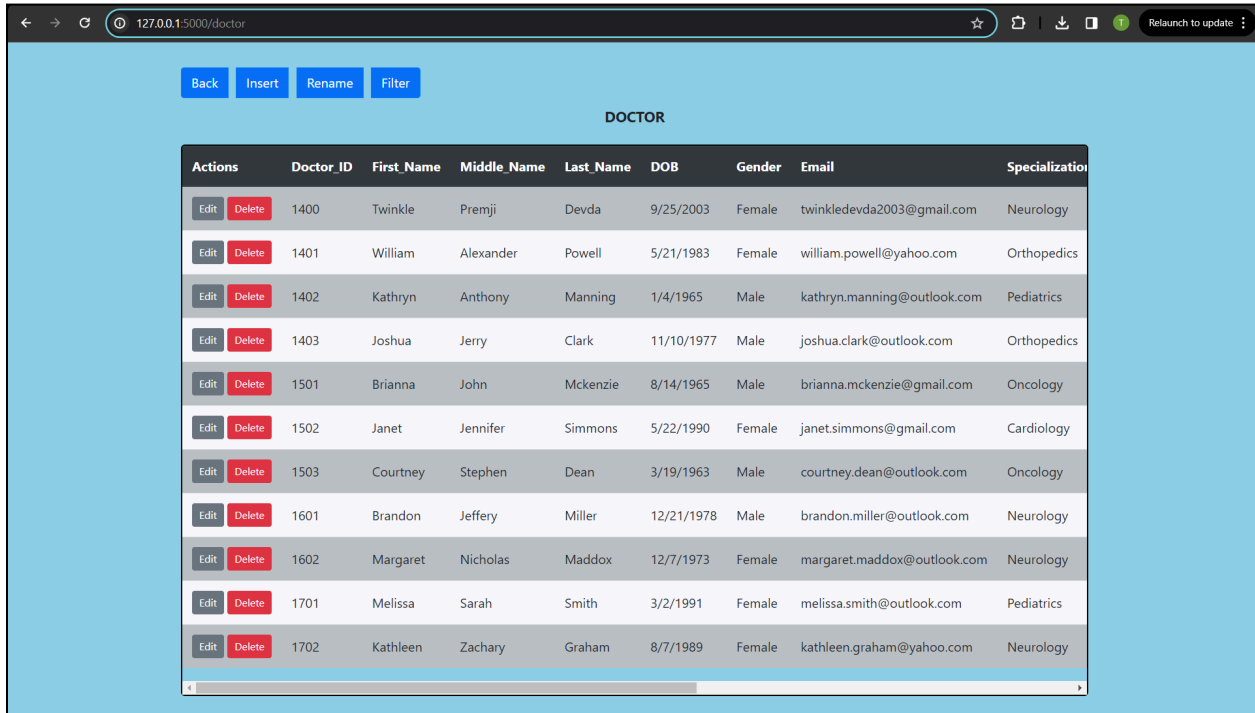
Submit

Clear

Record inserted successfully!

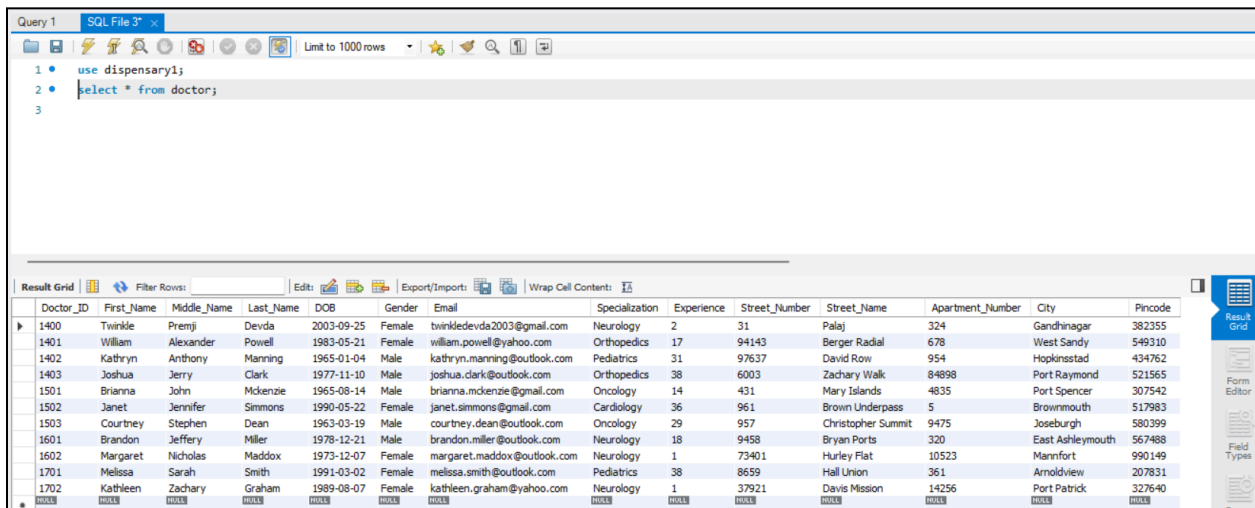
After inserting the information, a dialogue box shows “Record inserted successfully!”.

To verify the registration of the new doctor, we can refer to the “DOCTOR” table. The new entry added above has 1400 as “Doctor_id” is present in the table below.



DOCTOR								
Actions	Doctor_ID	First Name	Middle Name	Last Name	DOB	Gender	Email	Specialization
Edit Delete	1400	Twinkle	Premji	Devda	9/25/2003	Female	twinkledevda2003@gmail.com	Neurology
Edit Delete	1401	William	Alexander	Powell	5/21/1983	Female	william.powell@yahoo.com	Orthopedics
Edit Delete	1402	Kathryn	Anthony	Manning	1/4/1965	Male	kathryn.manning@outlook.com	Pediatrics
Edit Delete	1403	Joshua	Jerry	Clark	11/10/1977	Male	joshua.clark@outlook.com	Orthopedics
Edit Delete	1501	Brianna	John	Mckenzie	8/14/1965	Male	brianna.mckenzie@gmail.com	Oncology
Edit Delete	1502	Janet	Jennifer	Simmons	5/22/1990	Female	janet.simmons@gmail.com	Cardiology
Edit Delete	1503	Courtney	Stephen	Dean	3/19/1963	Male	courtney.dean@outlook.com	Oncology
Edit Delete	1601	Brandon	Jeffery	Miller	12/21/1978	Male	brandon.miller@outlook.com	Neurology
Edit Delete	1602	Margaret	Nicholas	Maddox	12/7/1973	Female	margaret.maddox@outlook.com	Neurology
Edit Delete	1701	Melissa	Sarah	Smith	3/2/1991	Female	melissa.smith@outlook.com	Pediatrics
Edit Delete	1702	Kathleen	Zachary	Graham	8/7/1989	Female	kathleen.graham@yahoo.com	Neurology

This new entry is also added to the database server as shown below.



```

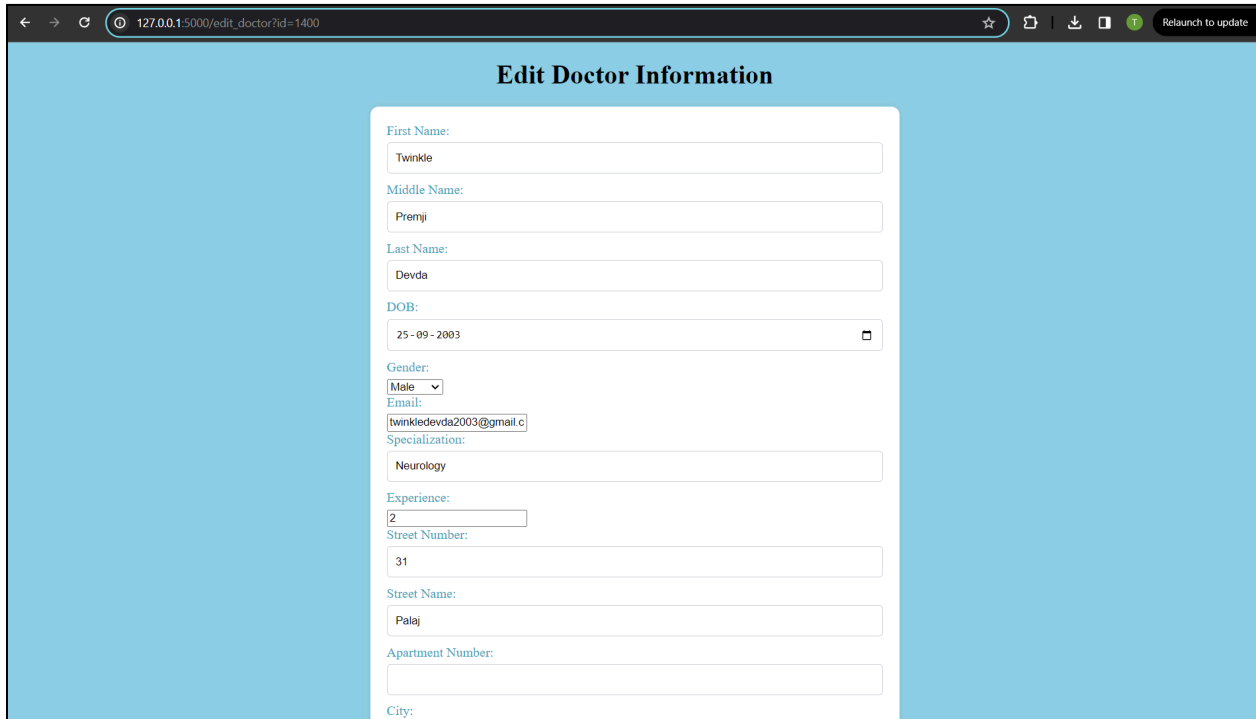
1 • use dispensary1;
2 • select * from doctor;
3

```

Doctor_ID	First Name	Middle Name	Last Name	DOB	Gender	Email	Specialization	Experience	Street Number	Street Name	Apartment Number	City	Pincode
1400	Twinkle	Premji	Devda	2003-09-25	Female	twinkledevda2003@gmail.com	Neurology	2	31	Palaj	324	Gandhinagar	382355
1401	William	Alexander	Powell	1983-05-21	Female	william.powell@yahoo.com	Orthopedics	17	94143	Berger Radial	678	West Sandy	549310
1402	Kathryn	Anthony	Manning	1965-01-04	Male	kathryn.manning@outlook.com	Pediatrics	31	97637	David Row	954	Hopkinsstad	434762
1403	Joshua	Jerry	Clark	1977-11-10	Male	joshua.clark@outlook.com	Orthopedics	38	6003	Zachary Walk	84898	Port Raymond	521565
1501	Brianna	John	Mckenzie	1965-08-14	Male	brianna.mckenzie@gmail.com	Oncology	14	431	Mary Islands	4835	Port Spencer	307542
1502	Janet	Jennifer	Simmons	1990-05-22	Female	janet.simmons@gmail.com	Cardiology	36	961	Brown Underpass	5	Brownmouth	517983
1503	Courtney	Stephen	Dean	1963-03-19	Male	courtney.dean@outlook.com	Oncology	29	957	Christopher Summit	9475	Joseburgh	580399
1601	Brandon	Jeffery	Miller	1978-12-21	Male	brandon.miller@outlook.com	Neurology	18	9458	Bryan Ports	320	East Ashleyemouth	567488
1602	Margaret	Nicholas	Maddox	1973-12-07	Female	margaret.maddox@outlook.com	Neurology	1	73401	Hurley Flat	10523	Mannfort	990149
1701	Melissa	Sarah	Smith	1991-03-02	Female	melissa.smith@outlook.com	Pediatrics	38	8659	Hall Union	361	Arnoldview	207831
1702	Kathleen	Zachary	Graham	1989-08-07	Female	kathleen.graham@yahoo.com	Neurology	1	37921	Davis Mission	14256	Port Patrick	327640

Edit

Now, users can edit their information in the database using the edit option available in each row of the table. On clicking the “Edit” button, users are redirected to an “Edit Doctor Information” form. This form already contains the information about the user. They can change the information as per their will.



The screenshot shows a web browser window with the address bar displaying `127.0.0.1:5000/edit_doctor?id=1400`. The page title is "Edit Doctor Information". The form contains the following fields and values:

- First Name:
- Middle Name:
- Last Name:
- DOB:
- Gender:
- Email:
- Specialization:
- Experience:
- Street Number:
- Street Name:
- Apartment Number:
- City:

Suppose the doctor wants to change their first name from “Twinkle” to “Ishika”; they can do so here.

127.0.0.1:5000/edit_doctor?id=1400

Edit Doctor Information

First Name:

Middle Name:

Last Name:

DOB:

Gender:

Email:

Specialization:

Experience:

Street Number:

Street Name:

Apartment Number:

City:

127.0.0.1:5000/doctor

Back Insert Rename Filter

DOCTOR

Actions	Doctor_ID	First Name	Middle Name	Last Name	DOB	Gender	Email	Specialization
Edit Delete	1400	Ishika	Premji	Devda	9/25/2003	Male	twinkleddevda2003@gmail.com	Neurology
Edit Delete	1401	William	Alexander	Powell	5/21/1983	Female	william.powell@yahoo.com	Orthopedics
Edit Delete	1402	Kathryn	Anthony	Manning	1/4/1965	Male	kathryn.manning@outlook.com	Pediatrics
Edit Delete	1403	Joshua	Jerry	Clark	11/10/1977	Male	joshua.clark@outlook.com	Orthopedics
Edit Delete	1501	Brianna	John	Mckenzie	8/14/1965	Male	brianna.mckenzie@gmail.com	Oncology
Edit Delete	1502	Janet	Jennifer	Simmons	5/22/1990	Female	janet.simmons@gmail.com	Cardiology
Edit Delete	1503	Courtney	Stephen	Dean	3/19/1963	Male	courtney.dean@outlook.com	Oncology
Edit Delete	1601	Brandon	Jeffery	Miller	12/21/1978	Male	brandon.miller@outlook.com	Neurology
Edit Delete	1602	Margaret	Nicholas	Maddox	12/7/1973	Female	margaret.maddox@outlook.com	Neurology
Edit Delete	1701	Melissa	Sarah	Smith	3/2/1991	Female	melissa.smith@outlook.com	Pediatrics
Edit Delete	1702	Kathleen	Zachary	Graham	8/7/1989	Female	kathleen.graham@yahoo.com	Neurology

The changes made above can be seen in the Doctor table on the website.

Query 1 SQL File 3

```

1 use dispensary1;
2 select * from doctor;
3

```

Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content: 15

Doctor_ID	First_Name	Middle_Name	Last_Name	DOB	Gender	Email	Specialization	Experience	Street_Number	Street_Name	Apartment_Number	City	Pincode
1400	Ishika	Premji	Devda	2003-09-25	Male	twinkleddevda2003@gmail.com	Neurology	2	31	Palaj		Gandhinagar	382355
1401	William	Alexander	Powell	1983-05-21	Female	william.powell@yahoo.com	Orthopedics	17	94143	Berger Radial	678	West Sandy	549310
1402	Kathryn	Anthony	Manning	1965-01-04	Male	kathryn.manning@outlook.com	Pediatrics	31	97637	David Row	954	Hopkinsstad	434762
1403	Joshua	Jerry	Clark	1977-11-10	Male	joshua.clark@outlook.com	Orthopedics	38	6003	Zachary Walk	84898	Port Raymond	521565
1501	Brianna	John	Mckenzie	1965-08-14	Male	brianna.mckenzie@gmail.com	Oncology	14	431	Mary Islands	4835	Port Spencer	307542
1502	Janet	Jennifer	Simmons	1990-05-22	Female	janet.simmons@gmail.com	Cardiology	36	961	Brown Underpass	5	Brownmouth	517983
1503	Courtney	Stephen	Dean	1963-03-19	Male	courtney.dean@outlook.com	Oncology	29	957	Christopher Summit	9475	Joseburgh	580399
1601	Brandon	Jeffery	Miller	1978-12-21	Male	brandon.miller@outlook.com	Neurology	18	9458	Bryan Ports	320	East Ashleymouth	567488
1602	Margaret	Nicholas	Maddox	1973-12-07	Female	margaret.maddox@outlook.com	Neurology	1	73401	Hurley Flat	10523	Mannfort	990149
1701	Melissa	Sarah	Smith	1991-03-02	Female	melissa.smith@outlook.com	Pediatrics	38	8659	Hall Union	361	Arnoldview	207831
1702	Kathleen	Zachary	Graham	1989-08-07	Female	kathleen.graham@yahoo.com	Neurology	1	37921	Davis Mission	14256	Port Patrick	327640

This change is also visible on the database server.

Delete

Now, to delete the entry from the server, the user can use the “Delete” button present on the right of the “Edit” option. On clicking the delete button a pop-up will appear to warn the user that their data will be deleted after this action.

Suppose the user wants to delete the information of a doctor having 1400 as “Doctor_ID”.

127.0.0.1:5000/doctor

Back Insert Rename Filter

127.0.0.1:5000 says
Are you sure you want to delete this doctor?

OK Cancel

Actions	Doctor_ID	First_Name	Middle_Name	Last_Name	DOB	Gender	Email	Specialization
Edit Delete	1400	Ishika	Premji	Devda	9/25/2003	Male	twinkleddevda2003@gmail.com	Neurology
Edit Delete	1401	William	Alexander	Powell	5/21/1983	Female	william.powell@yahoo.com	Orthopedics
Edit Delete	1402	Kathryn	Anthony	Manning	1/4/1965	Male	kathryn.manning@outlook.com	Pediatrics
Edit Delete	1403	Joshua	Jerry	Clark	11/10/1977	Male	joshua.clark@outlook.com	Orthopedics
Edit Delete	1501	Brianna	John	Mckenzie	8/14/1965	Male	brianna.mckenzie@gmail.com	Oncology
Edit Delete	1502	Janet	Jennifer	Simmons	5/22/1990	Female	janet.simmons@gmail.com	Cardiology
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Edit Delete	1601	Brandon	Jeffery	Miller	12/21/1978	Male	brandon.miller@outlook.com	Neurology
Edit Delete	1602	Margaret	Nicholas	Maddox	12/7/1973	Female	margaret.maddox@outlook.com	Neurology
Edit Delete	1701	Melissa	Sarah	Smith	3/2/1991	Female	melissa.smith@outlook.com	Pediatrics
Edit Delete	1702	Kathleen	Zachary	Graham	8/7/1989	Female	kathleen.graham@yahoo.com	Neurology

Doctor with 1400 as “Doctor_ID is present

After clicking on the “OK” button all the information about the doctor will be removed from the server.

Actions	Doctor_ID	First_Name	Middle_Name	Last_Name	DOB	Gender	Email	Specialization
Edit Delete	1401	William	Alexander	Powell	5/21/1983	Female	william.powell@yahoo.com	Orthopedics
Edit Delete	1402	Kathryn	Anthony	Manning	1/4/1965	Male	kathryn.manning@outlook.com	Pediatrics
Edit Delete	1403	Joshua	Jerry	Clark	11/10/1977	Male	joshua.clark@outlook.com	Orthopedics
Edit Delete	1501	Brianna	John	Mckenzie	8/14/1965	Male	brianna.mckenzie@gmail.com	Oncology
Edit Delete	1502	Janet	Jennifer	Simmons	5/22/1990	Female	janet.simmons@gmail.com	Cardiology
Edit Delete	1503	Courtney	Stephen	Dean	3/19/1963	Male	courtney.dean@outlook.com	Oncology
Edit Delete	1601	Brandon	Jeffery	Miller	12/21/1978	Male	brandon.miller@outlook.com	Neurology
Edit Delete	1602	Margaret	Nicholas	Maddox	12/7/1973	Female	margaret.maddox@outlook.com	Neurology
Edit Delete	1701	Melissa	Sarah	Smith	3/2/1991	Female	melissa.smith@outlook.com	Pediatrics
Edit Delete	1702	Kathleen	Zachary	Graham	8/7/1989	Female	kathleen.graham@yahoo.com	Neurology

Doctor with 1400 as “Doctor_ID has been deleted.

```
1 use dispensary;
2 select * from doctor;
3
```

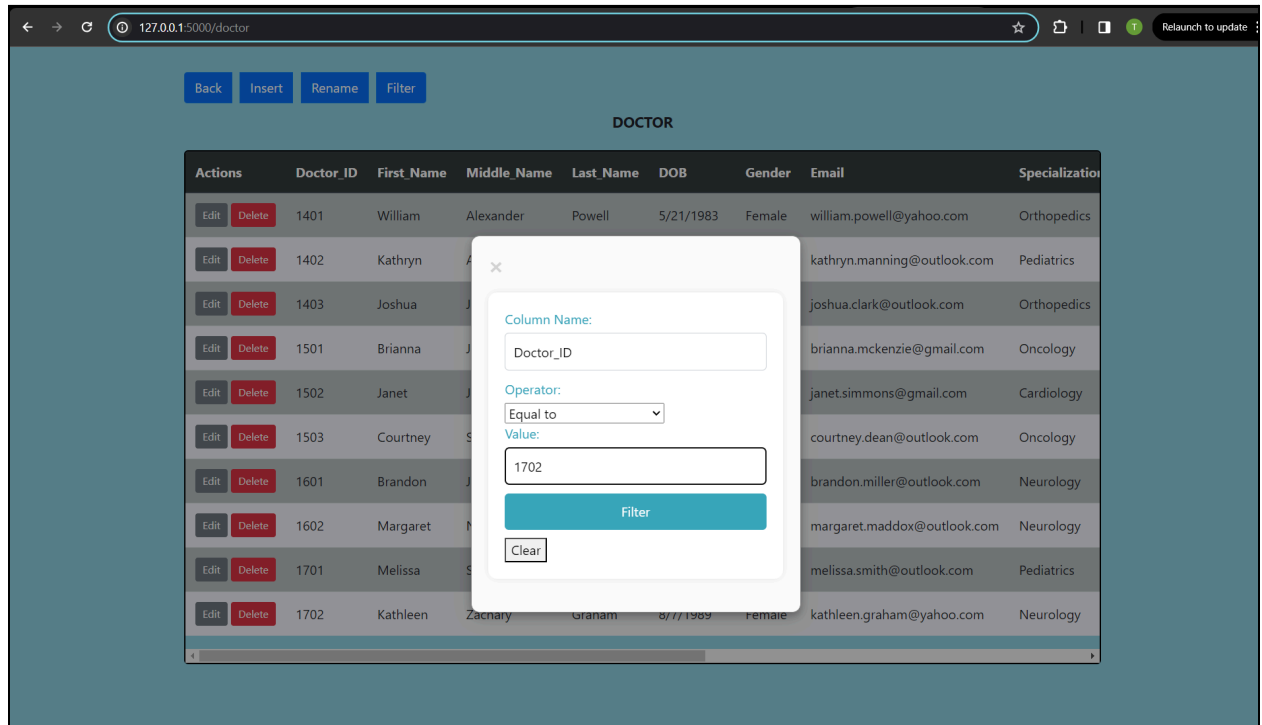
Doctor_ID	First_Name	Middle_Name	Last_Name	DOB	Gender	Email	Specialization	Experience	Street_Number	Street_Name	Apartment_Number	City	Pincode
1401	William	Alexander	Powell	1983-05-21	Female	william.powell@yahoo.com	Orthopedics	17	94143	Berger Radial	678	West Sandy	549310
1402	Kathryn	Anthony	Manning	1965-01-04	Male	kathryn.manning@outlook.com	Pediatrics	31	97637	David Row	954	Hopkinsstad	434762
1403	Joshua	Jerry	Clark	1977-11-10	Male	joshua.clark@outlook.com	Orthopedics	38	6003	Zachary Walk	84898	Port Raymond	521565
1501	Brianna	John	Mckenzie	1965-08-14	Male	brianna.mckenzie@gmail.com	Oncology	14	431	Mary Islands	4835	Port Spencer	207542
1502	Janet	Jennifer	Simmons	1990-05-22	Female	janet.simmons@gmail.com	Cardiology	36	961	Brown Underpass	5	Brownmouth	517983
1503	Courtney	Stephen	Dean	1963-03-19	Male	courtney.dean@outlook.com	Oncology	29	957	Christopher Summit	9475	Joseburgh	580399
1601	Brandon	Jeffery	Miller	1978-12-21	Male	brandon.miller@outlook.com	Neurology	18	9458	Bryan Ports	320	East Ashleymouth	567488
1602	Margaret	Nicholas	Maddox	1973-12-07	Female	margaret.maddox@outlook.com	Neurology	1	73401	Hurley Flat	10523	Mannfort	990149
1701	Melissa	Sarah	Smith	1991-03-02	Female	melissa.smith@outlook.com	Pediatrics	38	8659	Hall Union	361	Arnoldview	207831
1702	Kathleen	Zachary	Graham	1989-08-07	Female	kathleen.graham@yahoo.com	Neurology	1	37921	Davis Mission	14256	Port Patrick	327640

This change is also visible on our database server.

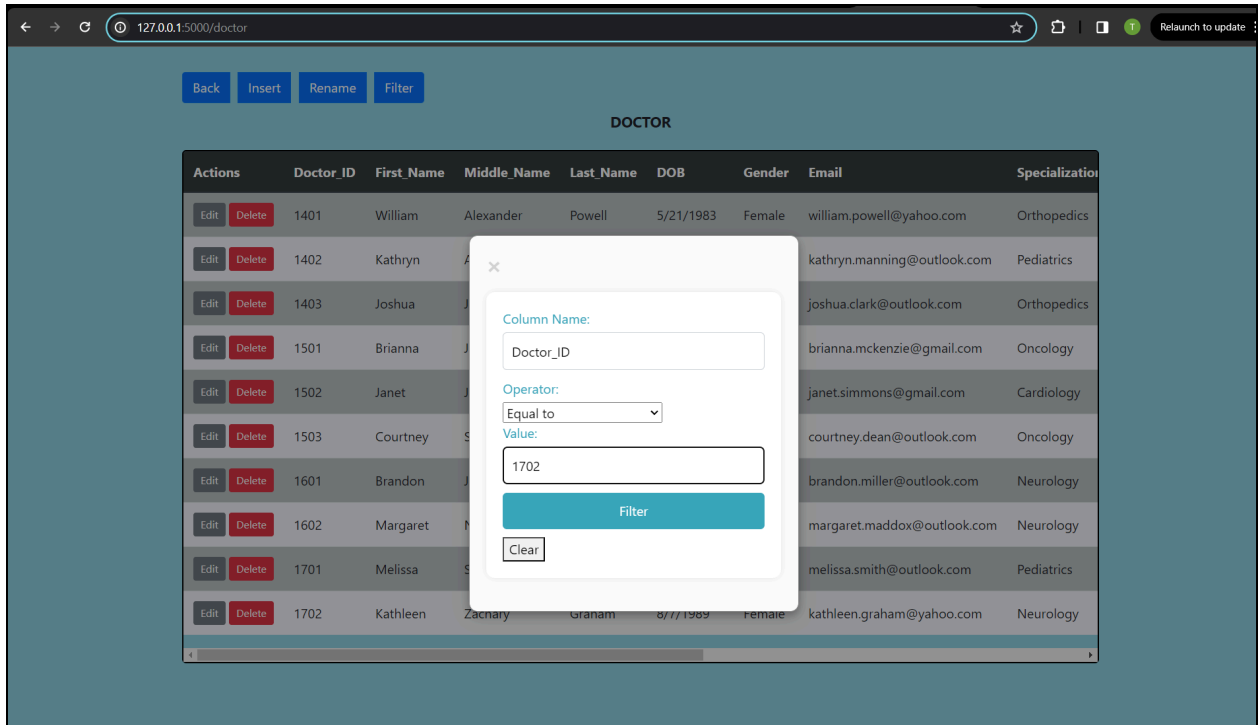
Filter

To filter out data from the table, a filter button is also provided.

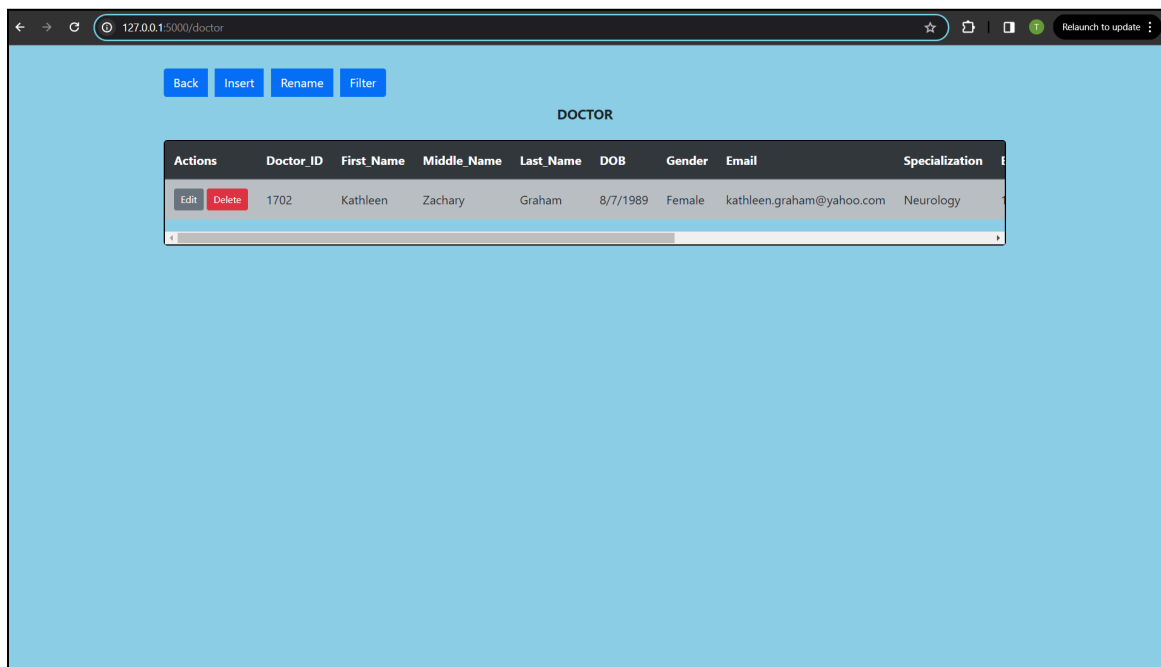
When the user clicks on the Filter button, One dialogue box appears where the user can select the column_name, operator and range/value.



For example users want the doctor whose doctor_id is equal to the 1702 the user fill the dialogue box as per below image.

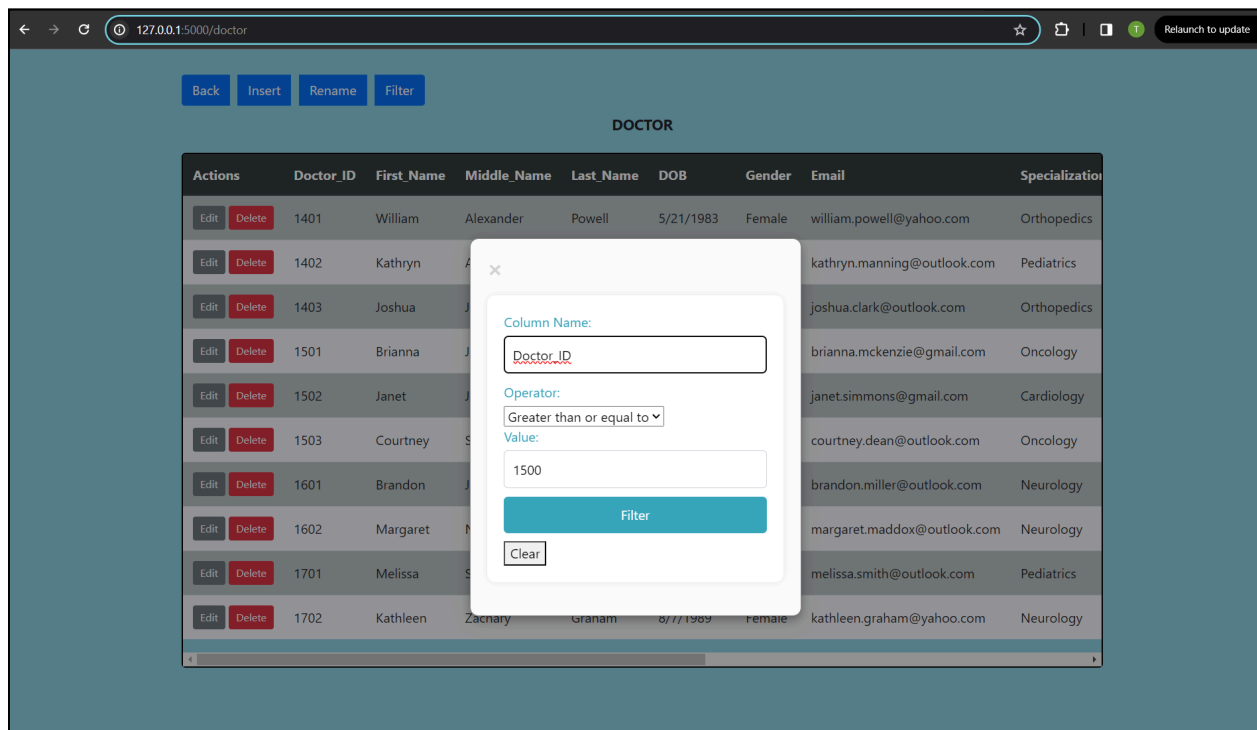


After clicking the Filter button, the user can see the information about the doctor having “Doctor_ID” as 1702.

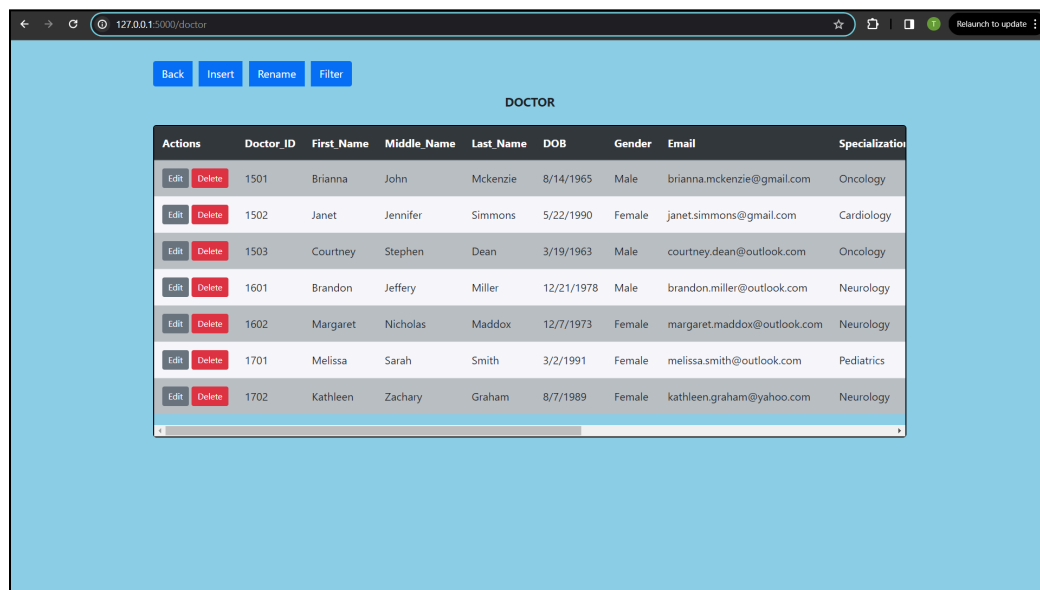


If user want to select information for a range of values, then this can be performed by selecting “Greater than or equal to” option in the operator option.

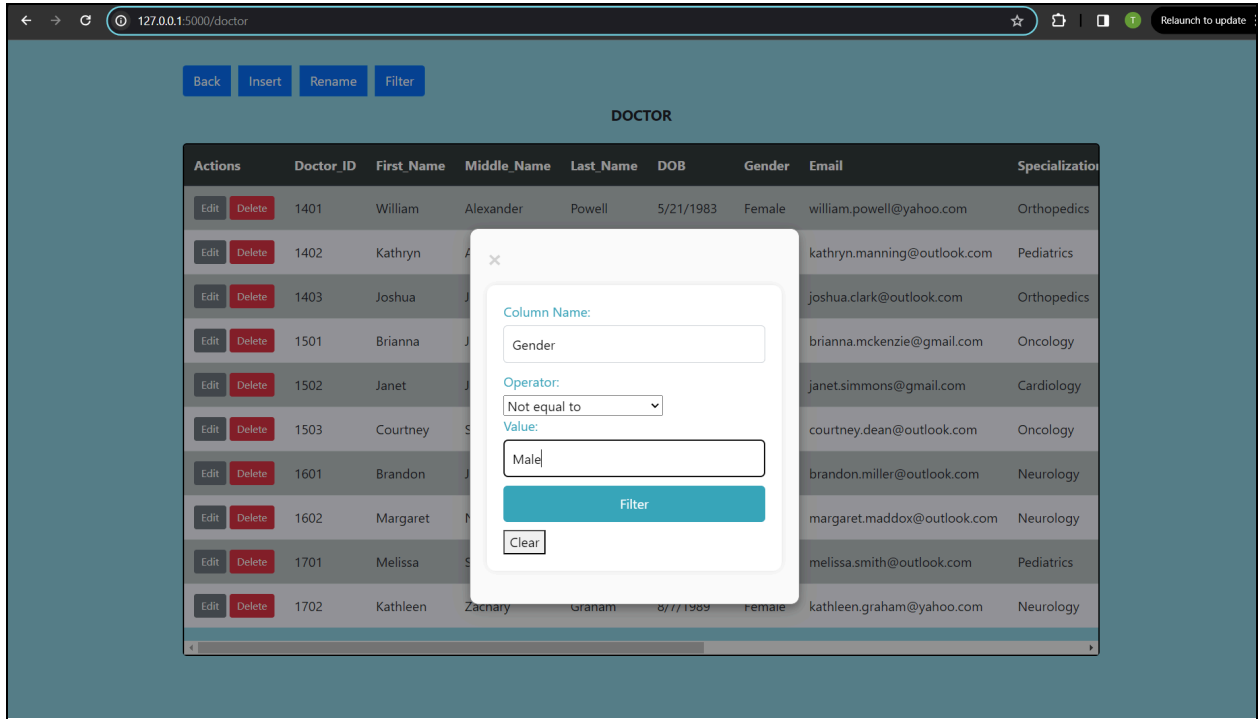
If he/she Executing Filter Condition "Greater than or equal to 1500" then the dialogue box will be like one shown below.



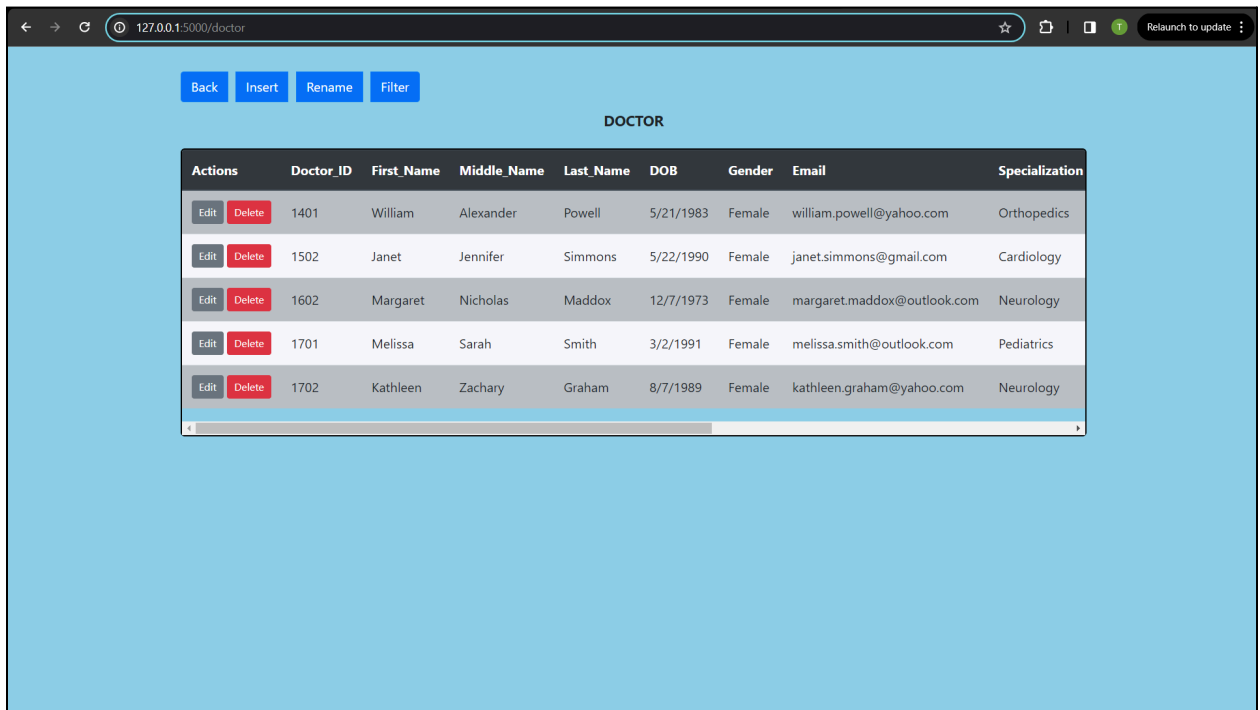
The result of this filter is as below



Similarly for getting the entry WHERE Gender != Male fill the dialogue box as per below image.

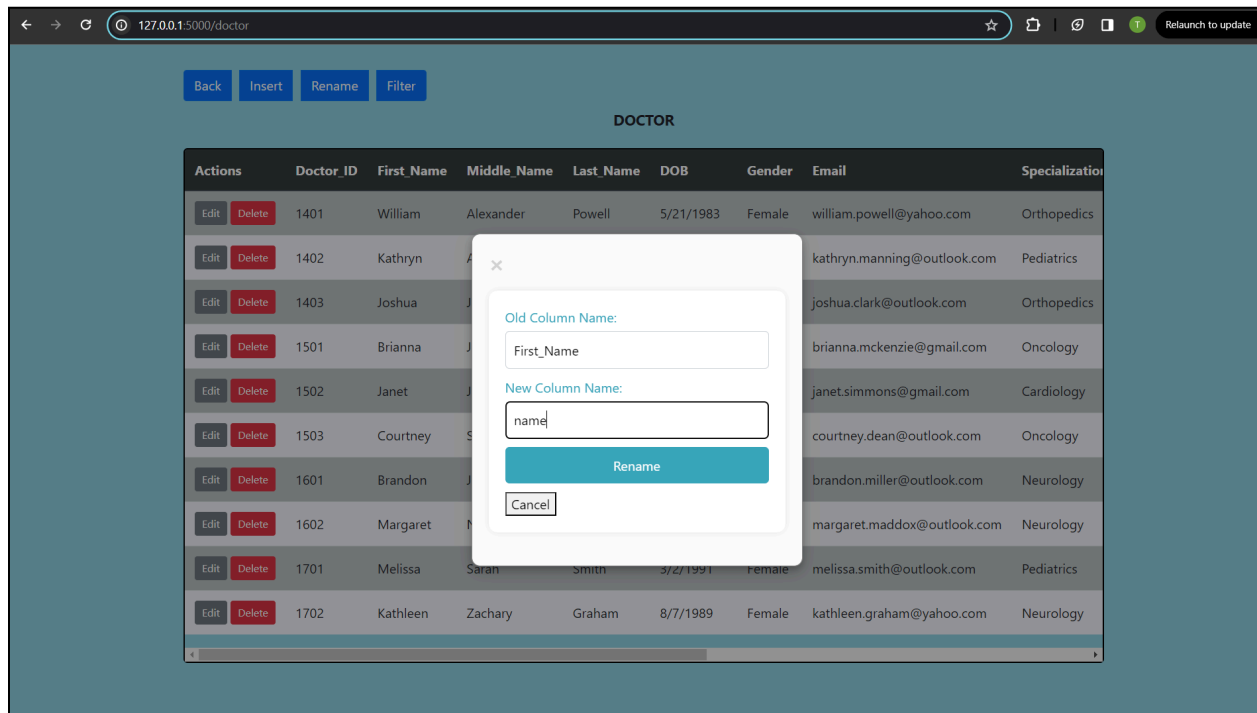


The result of this filter is as below



RENAME

Opening rename form



Changed the “First_Name” column name to “name” in Doctor table.

Now, Since there’s no column_name with “First_Name” in the table (as it has been renamed), the entries for the ‘first_Name’ column in the given image is showing as ‘Undefined’.

127.0.0.1:5000/doctor

Back Insert Rename Filter

DOCTOR

Actions	Doctor_ID	First_Name	Middle_Name	Last_Name	DOB	Gender	Email	Specialization
Edit Delete	1401	undefined	Alexander	Powell	5/21/1983	Female	william.powell@yahoo.com	Orthopedics
Edit Delete	1402	undefined	Anthony	Manning	1/4/1965	Male	kathryn.manning@outlook.com	Pediatrics
Edit Delete	1403	undefined	Jerry	Clark	11/10/1977	Male	joshua.clark@outlook.com	Orthopedics
Edit Delete	1501	undefined	John	Mckenzie	8/14/1965	Male	brianna.mckenzie@gmail.com	Oncology
Edit Delete	1502	undefined	Jennifer	Simmons	5/22/1990	Female	janet.simmons@gmail.com	Cardiology
Edit Delete	1503	undefined	Stephen	Dean	3/19/1963	Male	courtney.dean@outlook.com	Oncology
Edit Delete	1601	undefined	Jeffery	Miller	12/21/1978	Male	brandon.miller@outlook.com	Neurology
Edit Delete	1602	undefined	Nicholas	Maddox	12/7/1973	Female	margaret.maddox@outlook.com	Neurology
Edit Delete	1701	undefined	Sarah	Smith	3/2/1991	Female	melissa.smith@outlook.com	Pediatrics
Edit Delete	1702	undefined	Zachary	Graham	8/7/1989	Female	kathleen.graham@yahoo.com	Neurology

But in the SQL database, it has been renamed as 'name'

Query 1 SQL File 3*

Limit to 1000 rows

```

1 • use dispensary1;
2 • select * from doctor;
3

```

Result Grid Filter Rows: Edit Export/Import: Wrap Cell Contents: [?](#)

Doctor_ID	name	Middle_Name	Last_Name	DOB	Gender	Email	Specialization	Experience	Street_Number	Street_Name	Apartment_Number	City	Pincode
1401	William	Alexander	Powell	1983-05-21	Female	william.powell@yahoo.com	Orthopedics	17	94143	Berger Radial	678	West Sandy	549310
1402	Kathryn	Anthony	Manning	1965-01-04	Male	kathryn.manning@outlook.com	Pediatrics	31	97637	David Row	954	Hopkinsstad	434762
1403	Joshua	Jerry	Clark	1977-11-10	Male	joshua.clark@outlook.com	Orthopedics	38	6003	Zachary Walk	84898	Port Raymond	521565
1501	Brianna	John	Mckenzie	1965-08-14	Male	brianna.mckenzie@gmail.com	Oncology	14	431	Mary Islands	4835	Port Spencer	307542
1502	Janet	Jennifer	Simmons	1990-05-22	Female	janet.simmons@gmail.com	Cardiology	36	961	Brown Underpass	5	Brownmouth	517983
1503	Courtney	Stephen	Dean	1963-03-19	Male	courtney.dean@outlook.com	Oncology	29	957	Christopher Summit	9475	Joseburgh	580399
1601	Brandon	Jeffery	Miller	1978-12-21	Male	brandon.miller@outlook.com	Neurology	18	9458	Bryan Ports	320	East Ashleymouth	567488
1602	Margaret	Nicholas	Maddox	1973-12-07	Female	margaret.maddox@outlook.com	Neurology	1	73401	Hurley Flat	10523	Mannfort	990149
1701	Melissa	Sarah	Smith	1991-03-02	Female	melissa.smith@outlook.com	Pediatrics	38	8659	Hall Union	361	Arnoldview	207831
1702	Kathleen	Zachary	Graham	1989-08-07	Female	kathleen.graham@yahoo.com	Neurology	1	37921	Davis Mission	14256	Port Patrick	327640

Renaming 'name' to 'First_Name' again.

The screenshot shows a web application interface with a browser address bar at 127.0.0.1:5000/doctor. At the top, there are buttons for 'Back', 'Insert', 'Rename', and 'Filter'. Below these is a table titled 'DOCTOR'. A modal dialog box is open in the center, titled 'Rename'. It contains two input fields: 'Old Column Name:' with the value 'name' and 'New Column Name:' with the value 'First_Name'. There are 'Rename' and 'Cancel' buttons at the bottom of the dialog. The table in the background has columns: Actions, Doctor_ID, First_Name, Middle_Name, Last_Name, DOB, Gender, Email, and Specialization. The data rows show various doctors with their details.

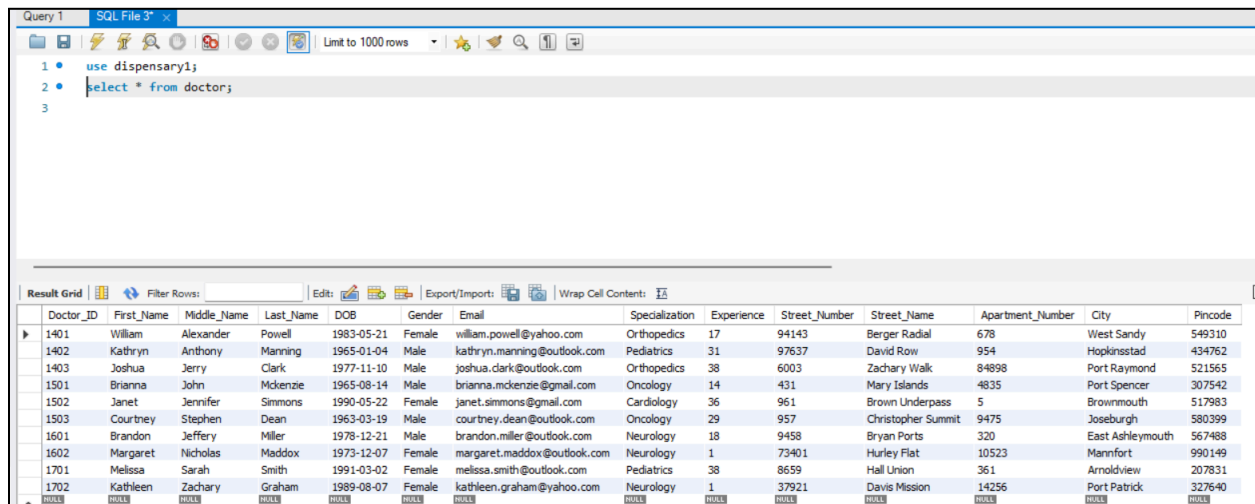
Actions	Doctor_ID	First_Name	Middle_Name	Last_Name	DOB	Gender	Email	Specialization
Edit Delete	1401	undefined	Alexander	Powell	5/21/1983	Female	william.powell@yahoo.com	Orthopedics
Edit Delete	1402	undefined					kathryn.manning@outlook.com	Pediatrics
Edit Delete	1403	undefined					joshua.clark@outlook.com	Orthopedics
Edit Delete	1501	undefined					brianna.mckenzie@gmail.com	Oncology
Edit Delete	1502	undefined					janet.simmons@gmail.com	Cardiology
Edit Delete	1503	undefined					courtney.dean@outlook.com	Oncology
Edit Delete	1601	undefined					brandon.miller@outlook.com	Neurology
Edit Delete	1602	undefined					margaret.maddox@outlook.com	Neurology
Edit Delete	1701	undefined	Sarah	Smith	3/2/1991	Female	melissa.smith@outlook.com	Pediatrics
Edit Delete	1702	undefined	Zachary	Graham	8/7/1989	Female	kathleen.graham@yahoo.com	Neurology

Now the original doctor table is revived with column entries for "First_Name".

The screenshot shows the same web application interface, but the 'Rename' dialog box is no longer present. The 'DOCTOR' table now has the 'First_Name' column populated with the names of the doctors. The table structure and data are as follows:

Actions	Doctor_ID	First_Name	Middle_Name	Last_Name	DOB	Gender	Email	Specialization
Edit Delete	1401	William	Alexander	Powell	5/21/1983	Female	william.powell@yahoo.com	Orthopedics
Edit Delete	1402	Kathryn	Anthony	Manning	1/4/1965	Male	kathryn.manning@outlook.com	Pediatrics
Edit Delete	1403	Joshua	Jerry	Clark	11/10/1977	Male	joshua.clark@outlook.com	Orthopedics
Edit Delete	1501	Brianna	John	Mckenzie	8/14/1965	Male	brianna.mckenzie@gmail.com	Oncology
Edit Delete	1502	Janet	Jennifer	Simmons	5/22/1990	Female	janet.simmons@gmail.com	Cardiology
Edit Delete	1503	Courtney	Stephen	Dean	3/19/1963	Male	courtney.dean@outlook.com	Oncology
Edit Delete	1601	Brandon	Jeffery	Miller	12/21/1978	Male	brandon.miller@outlook.com	Neurology
Edit Delete	1602	Margaret	Nicholas	Maddox	12/7/1973	Female	margaret.maddox@outlook.com	Neurology
Edit Delete	1701	Melissa	Sarah	Smith	3/2/1991	Female	melissa.smith@outlook.com	Pediatrics
Edit Delete	1702	Kathleen	Zachary	Graham	8/7/1989	Female	kathleen.graham@yahoo.com	Neurology

Updated in SQL database.



The screenshot shows an SQL IDE window titled 'Query 1' with a toolbar and a query editor. The query editor contains the following SQL code:

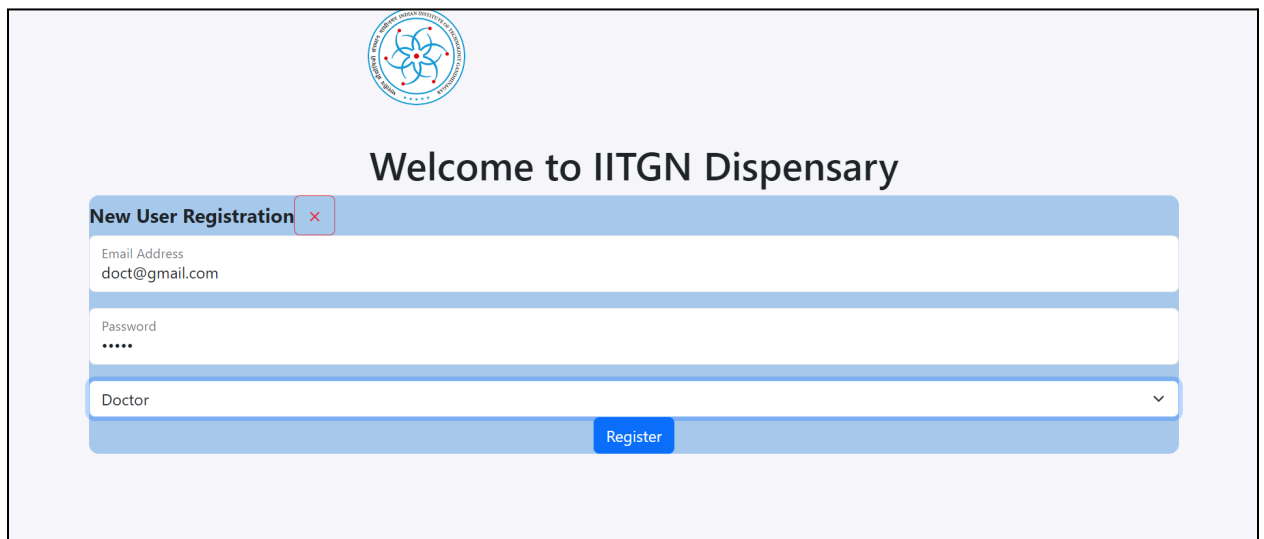
```
1 • use dispensary1;
2 • select * from doctor;
3
```

Below the query editor is a 'Result Grid' showing the results of the query. The grid has 13 columns: Doctor_ID, First_Name, Middle_Name, Last_Name, DOB, Gender, Email, Specialization, Experience, Street_Number, Street_Name, Apartment_Number, City, and Pincode. The results are as follows:

Doctor_ID	First_Name	Middle_Name	Last_Name	DOB	Gender	Email	Specialization	Experience	Street_Number	Street_Name	Apartment_Number	City	Pincode
1401	William	Alexander	Powell	1983-05-21	Female	william.powell@yahoo.com	Orthopedics	17	94143	Berger Radial	678	West Sandy	549310
1402	Kathryn	Anthony	Manning	1965-01-04	Male	kathryn.manning@outlook.com	Pediatrics	31	97637	David Row	954	Hopkinsstad	434762
1403	Joshua	Jerry	Clark	1977-11-10	Male	joshua.clark@outlook.com	Orthopedics	38	6003	Zachary Walk	84898	Port Raymond	521565
1501	Brianna	John	Mckenzie	1965-08-14	Male	brianna.mckenzie@gmail.com	Oncology	14	431	Mary Islands	4835	Port Spencer	307542
1502	Janet	Jennifer	Simmons	1990-05-22	Female	janet.simmons@gmail.com	Cardiology	36	961	Brown Underpass	5	Brownmouth	517983
1503	Courtney	Stephen	Dean	1963-03-19	Male	courtney.dean@outlook.com	Oncology	29	957	Christopher Summit	9475	Joseburgh	580399
1601	Brandon	Jeffery	Miller	1978-12-21	Male	brandon.miller@outlook.com	Neurology	18	9458	Bryan Ports	320	East Ashleymouth	567488
1602	Margaret	Nicholas	Maddox	1973-12-07	Female	margaret.maddox@outlook.com	Neurology	1	73401	Hurley Flat	10523	Mannfort	990149
1701	Melissa	Sarah	Smith	1991-03-02	Female	melissa.smith@outlook.com	Pediatrics	38	8659	Hall Union	361	Arnoldview	207831
1702	Kathleen	Zachary	Graham	1989-08-07	Female	kathleen.graham@yahoo.com	Neurology	1	37921	Davis Mission	14256	Port Patrick	327640

Accesses:

- When logged in as 'Staff', both view and edit access are given, for all the entities, as shown above.
- When logged in as 'Doctor':



The screenshot shows a web form titled 'Welcome to IITGN Dispensary'. The form is for 'New User Registration' and includes the following fields:

- Email Address: doct@gmail.com
- Password: *****
- Doctor: (dropdown menu)

A blue 'Register' button is located at the bottom right of the form.

The user will have edit access for the Doctor, Emergency, and Prescription tables; which means the Insert, Delete, Rename, and Filter options are visible to the user.

Back Insert Rename Filter							
DOCTOR							
Actions	Doctor_ID	First_Name	Middle_Name	Last_Name	DOB	Gender	
Edit Delete	156	Riya	fpo	Jain	Sat, 09 Feb 2002 00:00:00 GMT	Male	
Edit Delete	1401	Manish	Alexander	Patel	Fri, 09 Sep 1994 00:00:00 GMT	Male	
Edit Delete	1402	Kathryn	Anthony	Manning	Mon, 04 Jan 1965 00:00:00 GMT	Male	
Edit Delete	1403	Joshua	Jerry	Clark	Thu, 10 Nov 1977 00:00:00 GMT	Male	
Edit Delete	1501	Brianna	John	Mckenzie	Sat, 14 Aug 1965 00:00:00 GMT	Male	
Edit Delete	1502	Janet	Jennifer	Simmons	Tue, 22 May 1990 00:00:00 GMT	Female	
Edit Delete	1503	Courtney	Stephen	Dean	Tue, 19 Mar 1963 00:00:00 GMT	Male	

View access is given for all tables which means the Insert, Delete, Rename, and Filter options are not visible to the user.

Back							
Staff							
Staff_ID	First_Name	Middle_Name	Last_Name	Join_Date	DOB		
2001	Alexandra	Ross	Arroyo	Thu, 25 Feb 2010 00:00:00 GMT	Thu, 09 Nov 1989 00:00:00 GMT		
2002	Candace	Angela	Davidson	Wed, 03 Feb 2021 00:00:00 GMT	Thu, 01 Apr 1999 00:00:00 GMT		
2003	Melissa	Tina	Taylor	Thu, 02 Nov 2023 00:00:00 GMT	Mon, 14 Mar 1977 00:00:00 GMT		
2004	Caleb	Sandra	Johnson	Mon, 22 Jun 2009 00:00:00 GMT	Mon, 16 Oct 2000 00:00:00 GMT		
2005	Kayla	Matthew	Good	Mon, 12 May 2014 00:00:00 GMT	Tue, 18 Sep 2001 00:00:00 GMT		
2006	Aaron	Ernest	Alexander	Sat, 30 Dec 2023 00:00:00 GMT	Tue, 24 Jun 1986 00:00:00 GMT		
2007	Nicholas	Michael	Thomas	Sun, 24 Jul 2022 00:00:00 GMT	Sun, 09 Apr 1995 00:00:00 GMT		
2008	Stephanie	Jeremy	Moore	Fri, 15 Oct 2021 00:00:00 GMT	Fri, 21 Aug 1992 00:00:00 GMT		

- When logged in as 'Patient':



Welcome to IITGN Dispensary

New User Registration ✕

Email Address
pat@gmail.com

Password
•••••

Patient

Register

For all tables, only view access has been given to the user.

Back

Emergency

Prescription

Prescription

Prescription_ID	Patient_ID	Date	Diagnosis
P0001	21060	11/1/2023	Ligament tear
P0002	23024	11/1/2023	Hepatitis
P0003	19034	11/1/2023	Flu
P0004	19027	11/1/2023	Chronic kidney disease
P0005	19011	11/1/2023	Sprained ankle
P0006	22013	11/1/2023	Sinus infection
P0007	19055	11/1/2023	Pneumonia

Contribution:

Name	Group	Contribution
Ishika Raj	G1	Frontend Development and Designing, Report documentation, Readme File, Frontend backend integration
Twinkle Devda	G1	Frontend Development and Designing, Report documentation, Readme File, Frontend backend integration
Saumya Jaiswal	G1	Frontend Development and Designing, Report documentation, Readme File, Frontend backend integration
Darsh Dalal	G1	Frontend Development and Designing, Report documentation, Readme File, Frontend backend integration
Shreya Patel	G2	Backend Development and Designing, Report documentation, Readme File, Backend frontend integration, User Authentication and Authorization
Riya Jain	G2	Backend Development and Designing, Report documentation, Readme File, Backend frontend integration, User Authentication and Authorization
Trivedi HetKumar	G2	Backend Development and Designing, Report documentation, Readme File, Backend frontend integration, User Authentication and Authorization
Saurabh Kumar Sah	G2	Backend Development and Designing, Report documentation, Readme File, Backend frontend integration, User Authentication and

		Authorization
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