Lab 5: openEMR: EHR Administration Functions

5.1 Learning objectives:

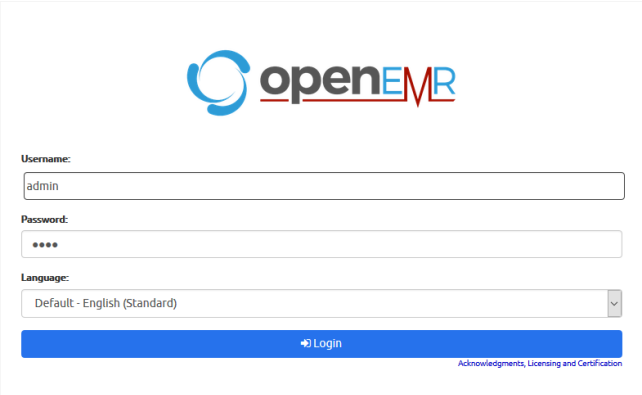
- To learn how to add and manage facilities
- To learn how to add and manage Users administration
- To learn how manage Lists
- To learn how to manage the Address Book
- To learn how to manage Procedure order administration
- To learn how to add and manage Pharmacy

5.2 Login page

Role: admin

User Name: admin

Password: pass



5.3 Admin Account Configuration and Settings

After login, The IT admin user should do the following:

Setup the openEMR system with the following

1- Set up new facilities
2- Add new users
3- Manage practices
4- Manage procedure order
5- Add Pharmacy Dispensary Module
6- Log out

Facilities

Facilities refer to place or equipment necessary for providing healthcare services and could be:

Clinic (inside Hospital or center, or independent clinic), Inpatient hospital, Outpatient hospital, Emergency room, Office, Radiology center, Medical lab, Pharmacy, and Others

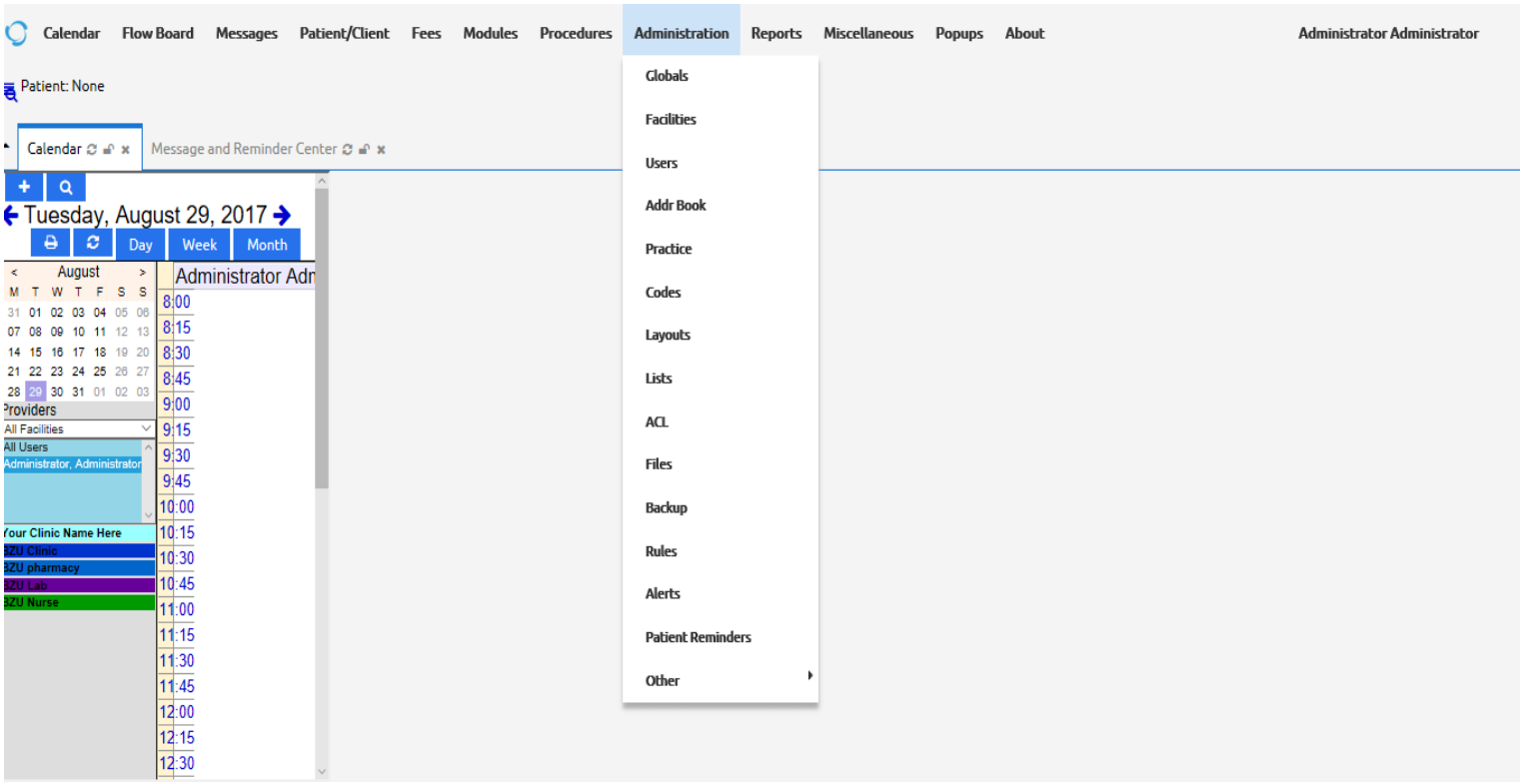
1. **Set up new Facilities**

Admin has to add the following facilities

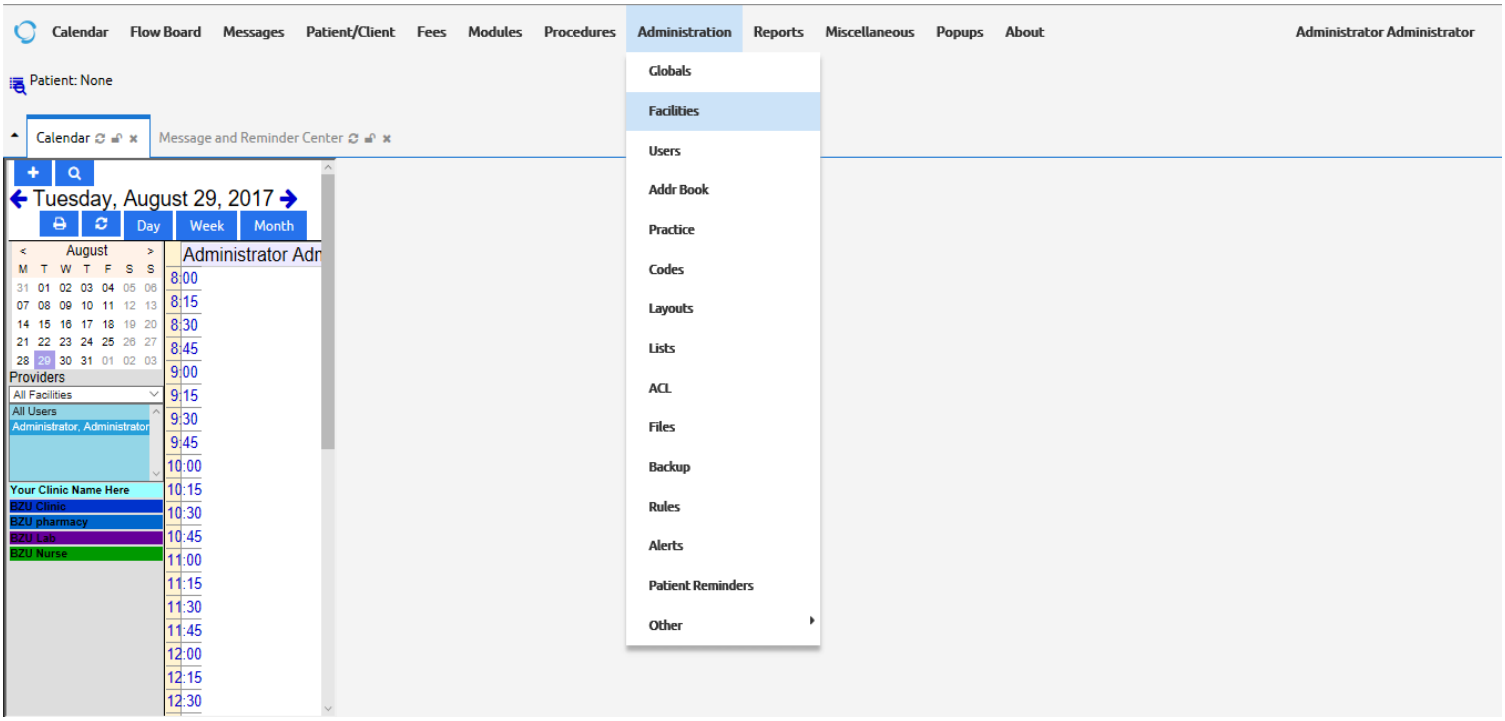
Facility	Facility Type	Other info
[University Name] medical center	Outpatient Hospital	Represent the whole institute University address, city, country, phone, color, etc.
[University Name] general clinic	Independent clinic	Part of the institute The address, city … as above
[University Name] eye clinic	Independent clinic	Part of the institute The address, city … as above
[University Name] Nurse Facility	Skilled nurse facility	Part of the institute The address, city … as above
[University Name] pharmacy	Pharmacy	Part of the institute The address, city … as above

To set up facility, do the following:

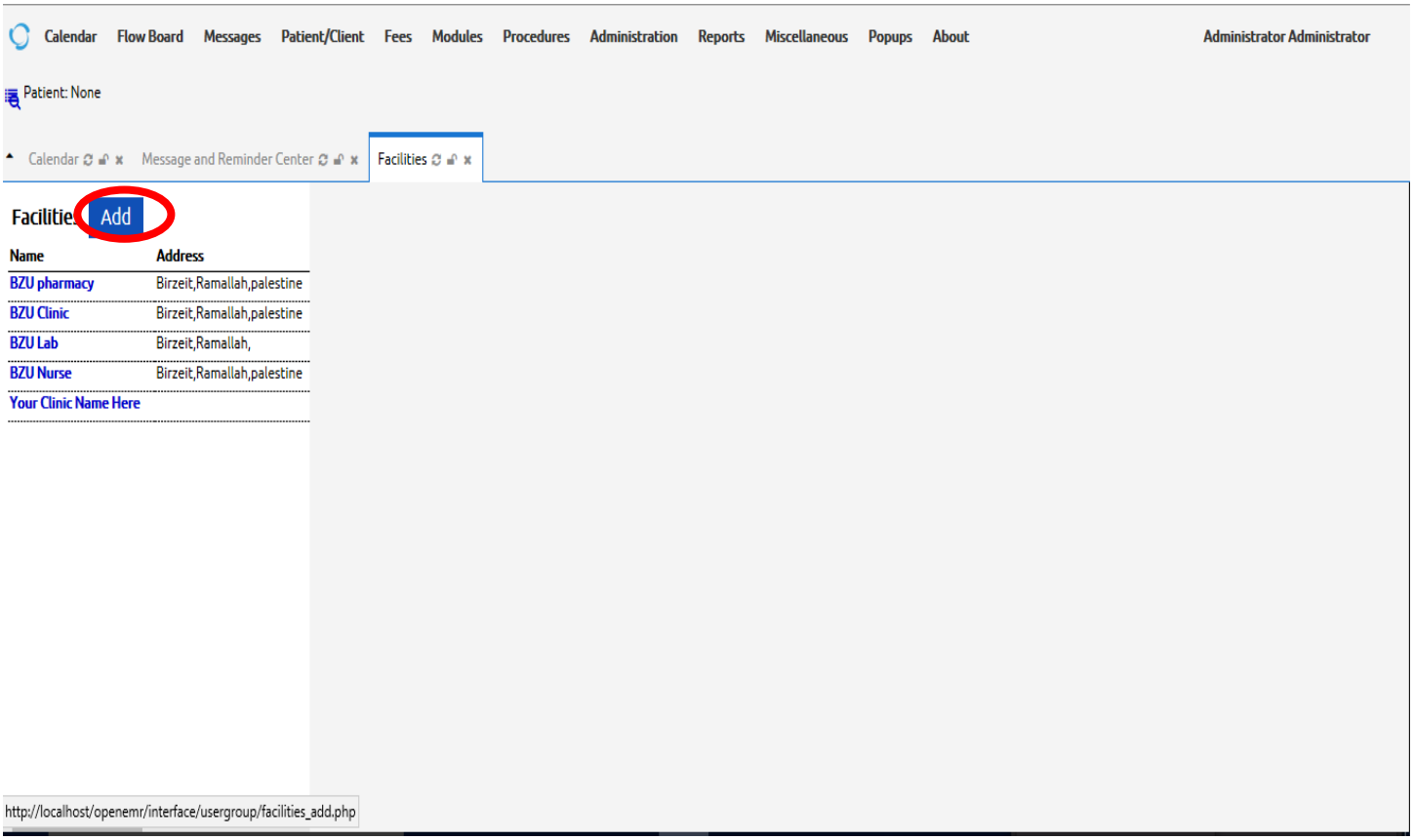
- Go to the **Administration** menu



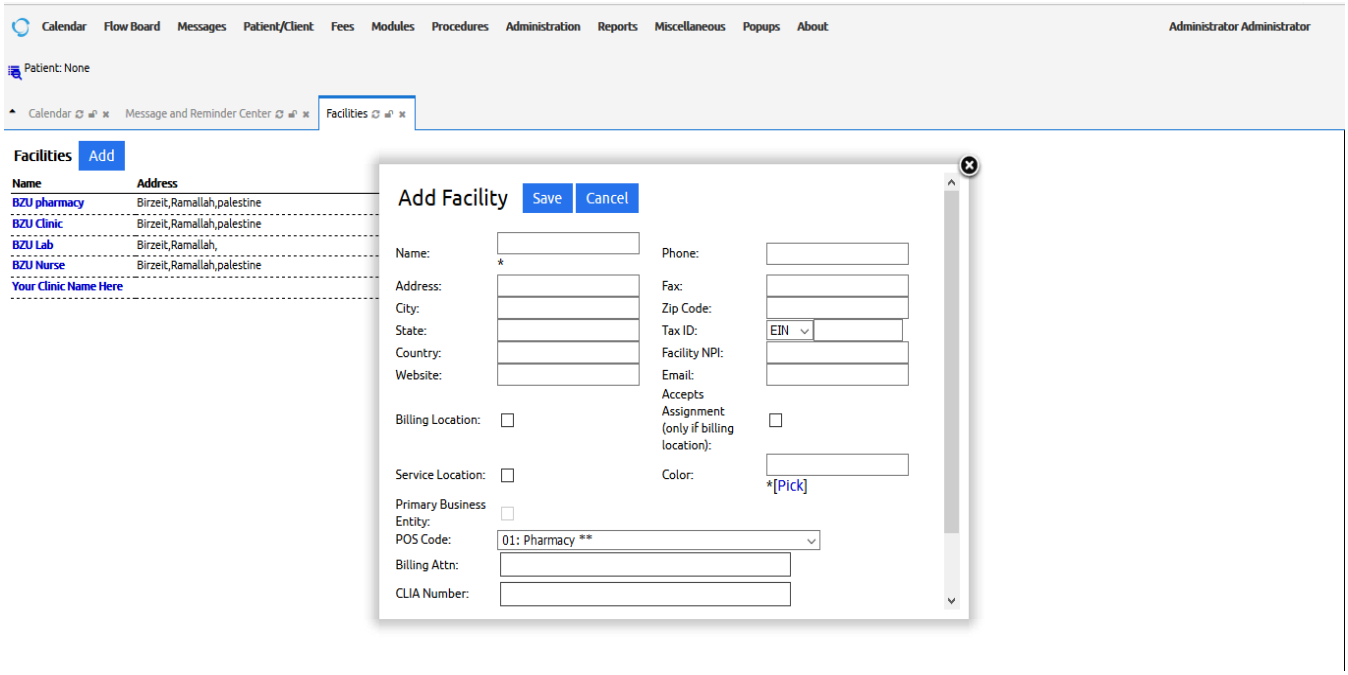
- Choose **Facility**



- Click **Add** button



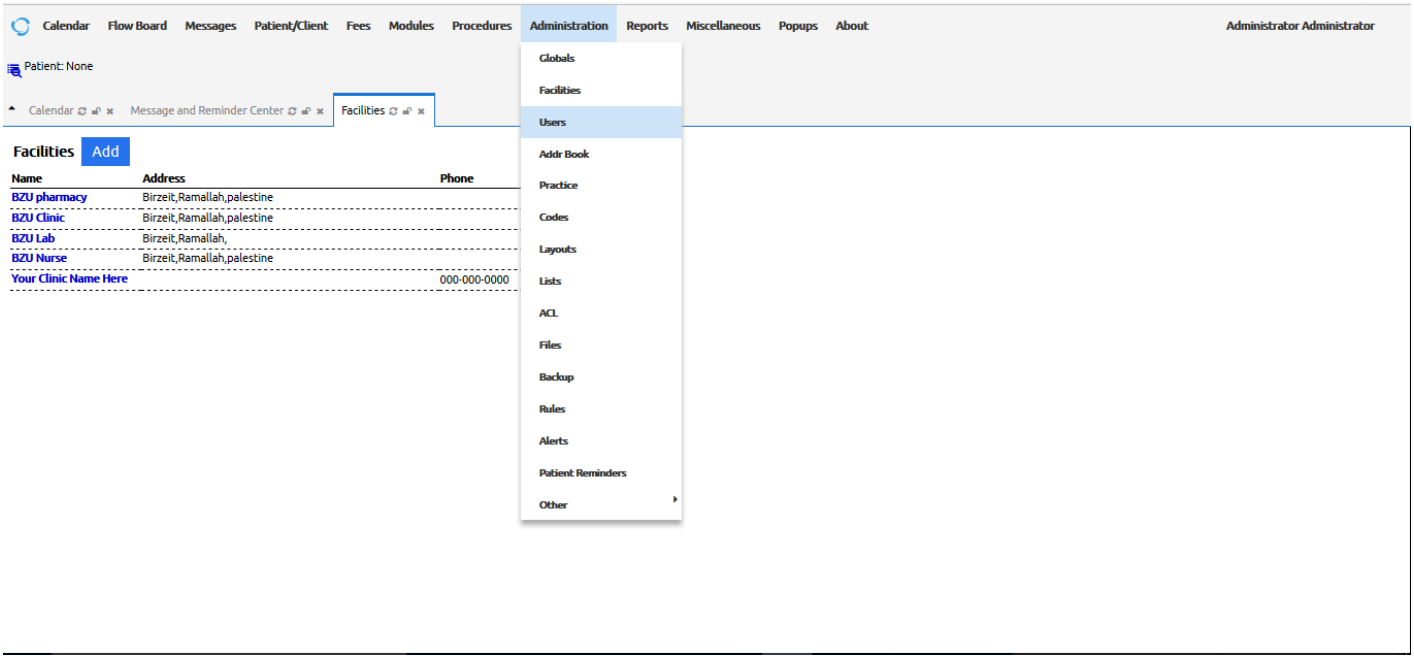
- **Fill** and **Save** the facility form as shown in the figure below



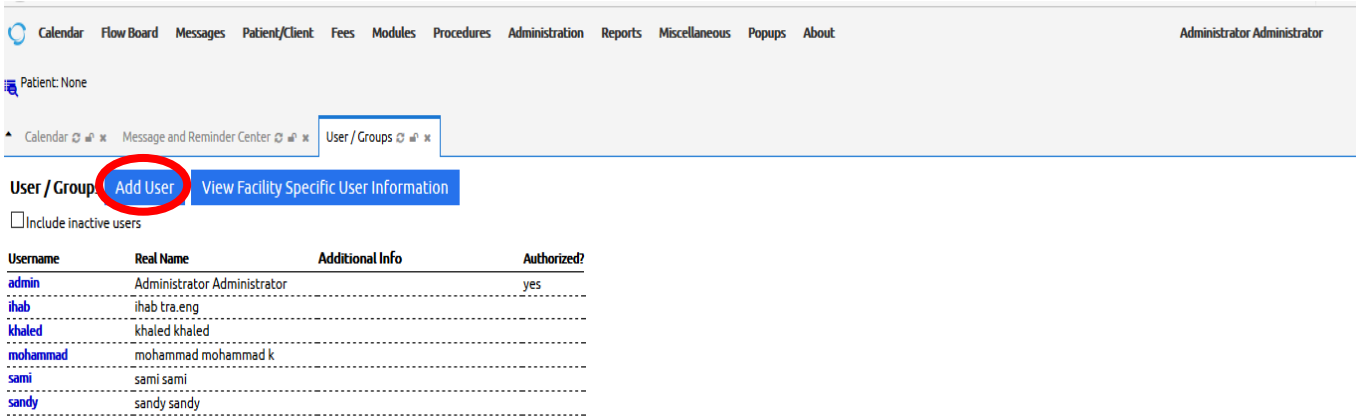
- Repeat the above steps to add the other facilities

2. Add new users

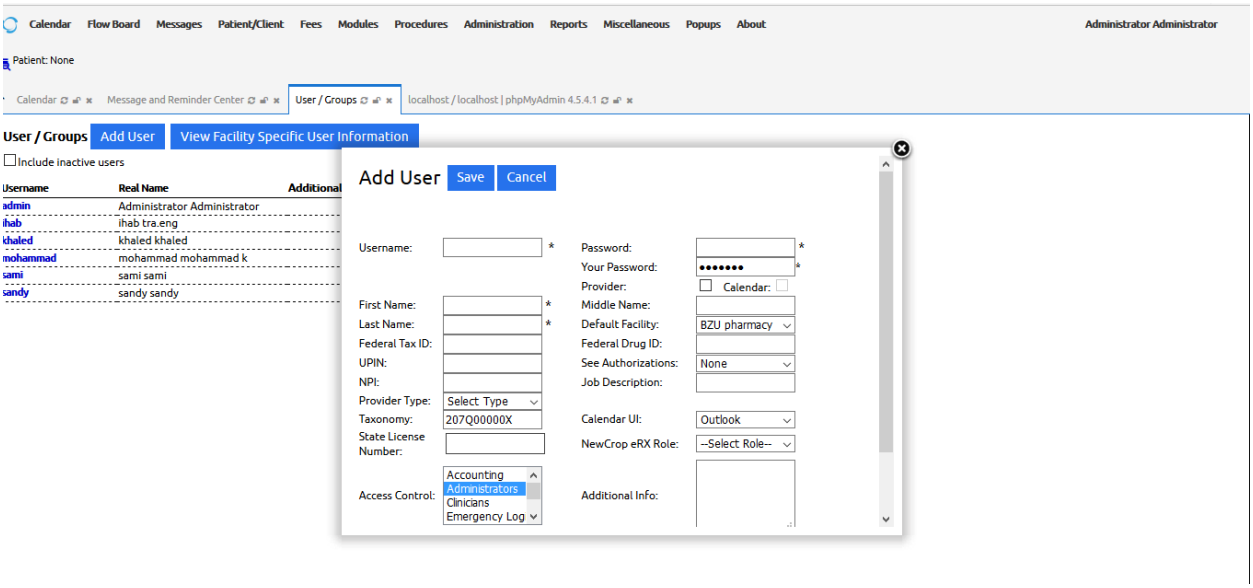
- Go to the **Administration** menu and choose **Users**



- click **Add User**



- **Fill** and **Save** the User form as shown in the figure below



- Repeat the above steps to add the other Users

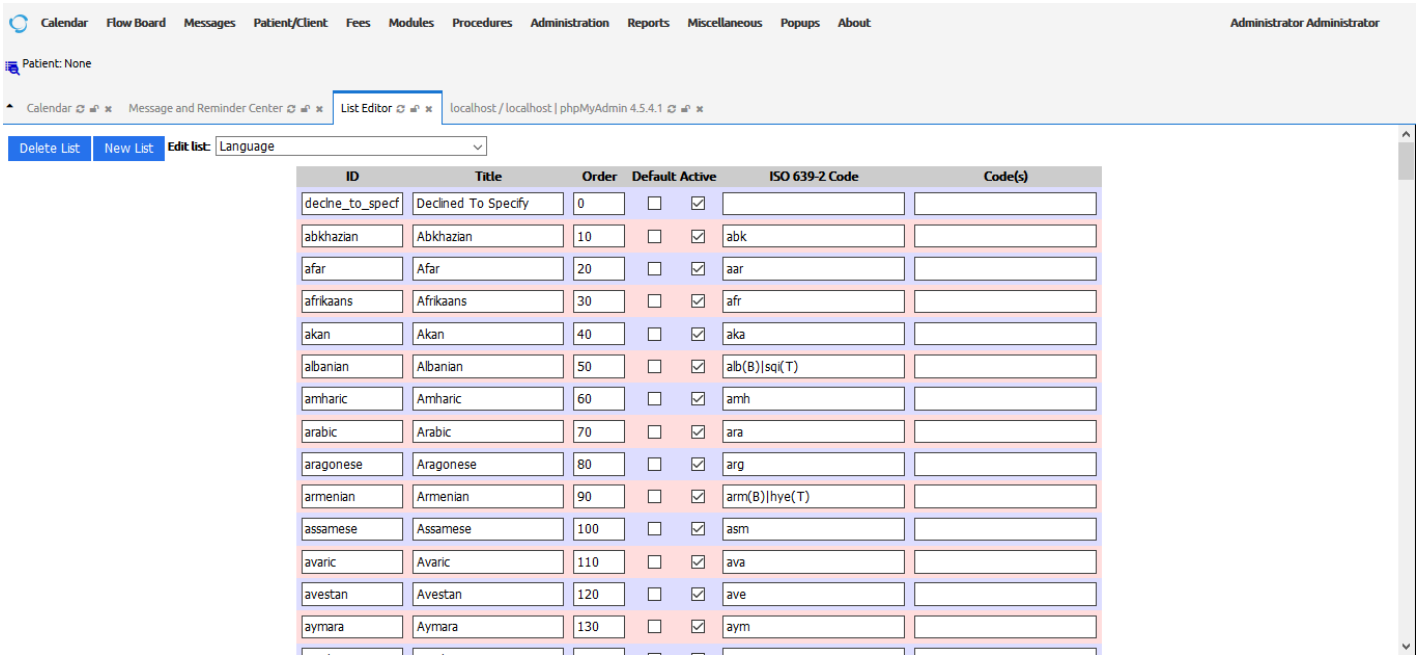
3. Manage List

OpenEMR allow administrator user to edit the **lists, examples on the list**

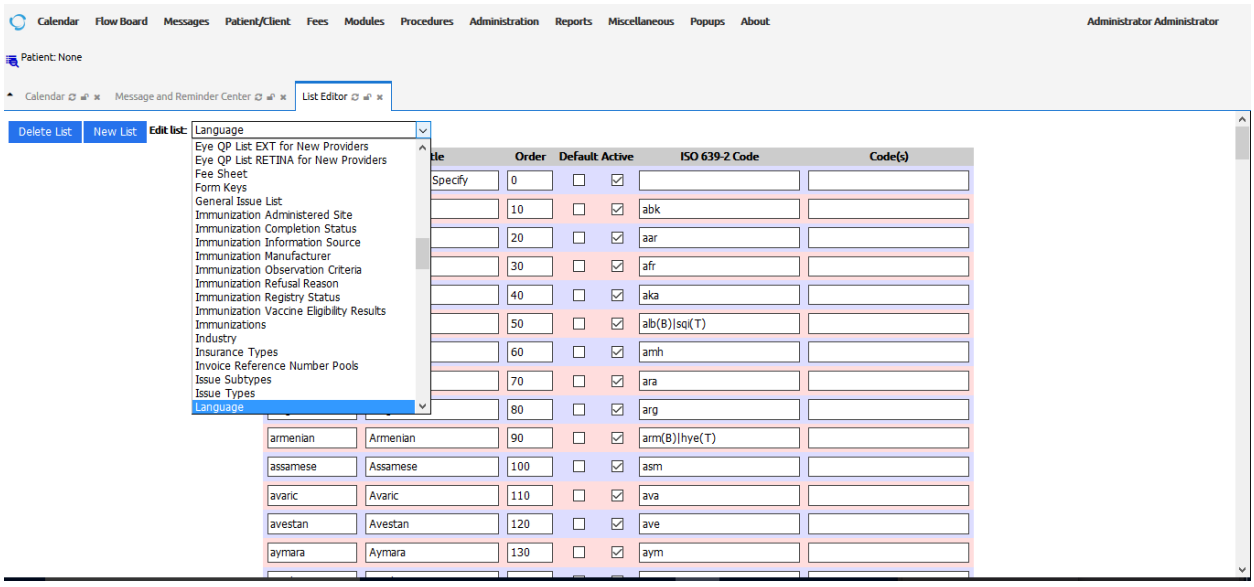
1. Language list ➔ list of all languages
2. NewCrop eRX Role ➔ users' role in the add user form

To manage (add, edit, delete) list, **IT admin** has to do the following:

- Choose **List** from **Administration** menu, this will open the **List Editor**



- Select the **list** to be managed from the drop-down list

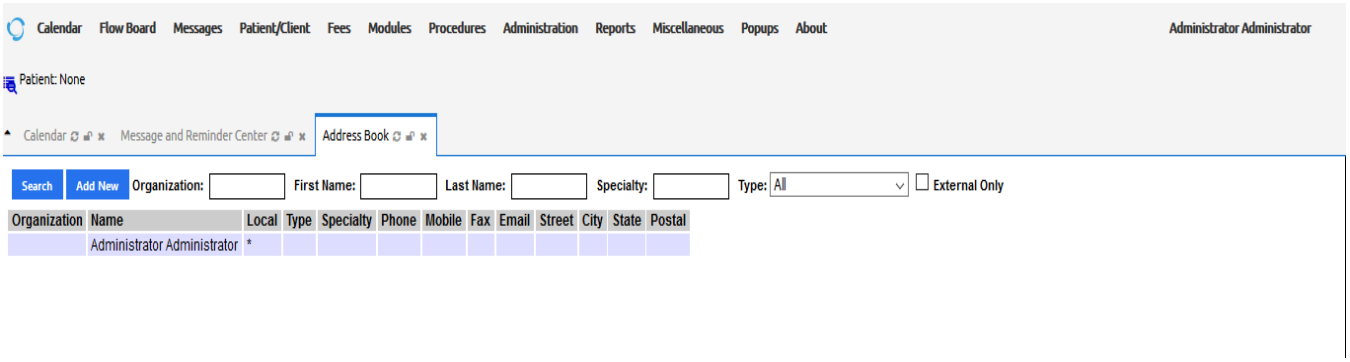


- Manage list item displayed in the list table
- **Save** the list form as shown in the figure below:
- Repeat the above steps to manage the other lists

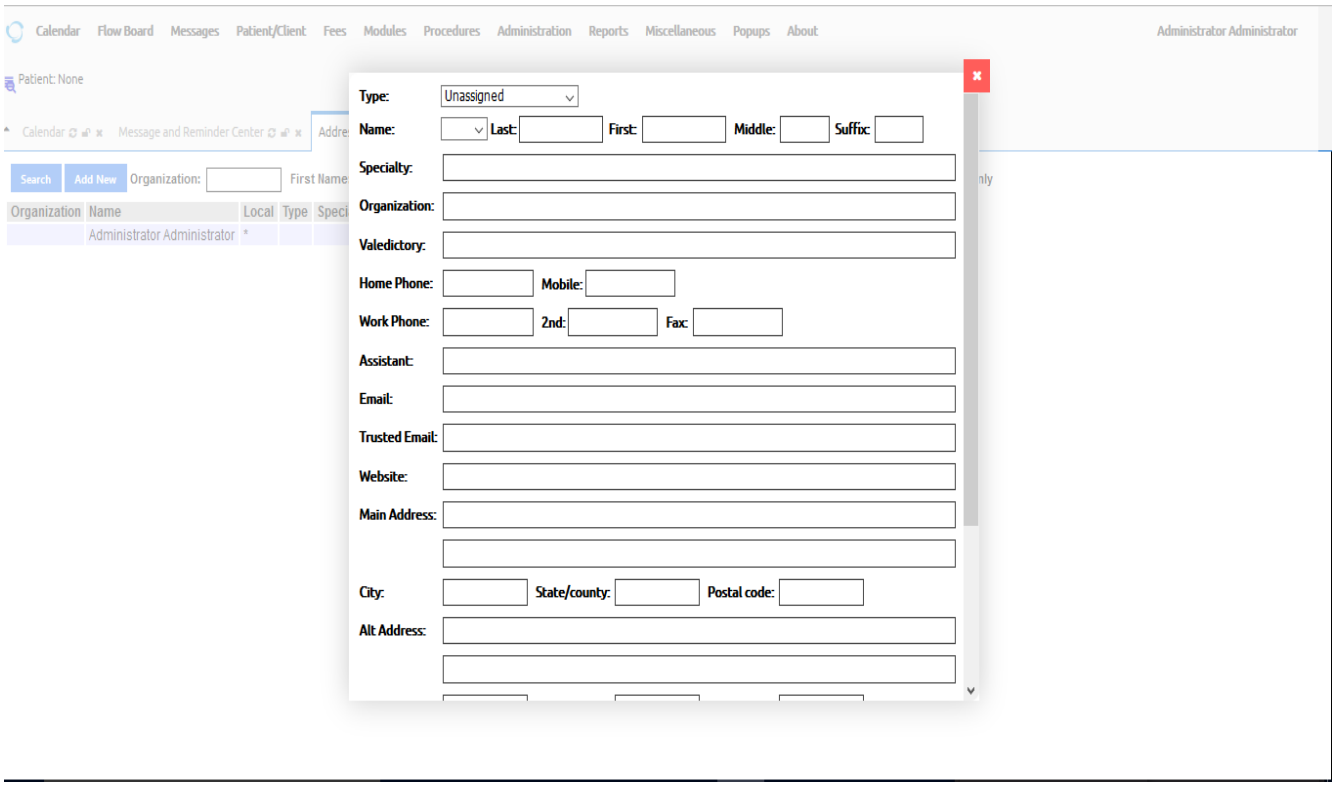
1. Address Book

To manage the address Book**, IT admin** has to do the following:

- Choose **Address Book** from **administration** menu



- Click **Add New** to add new organization to the address book



- **Fill** and **Save**

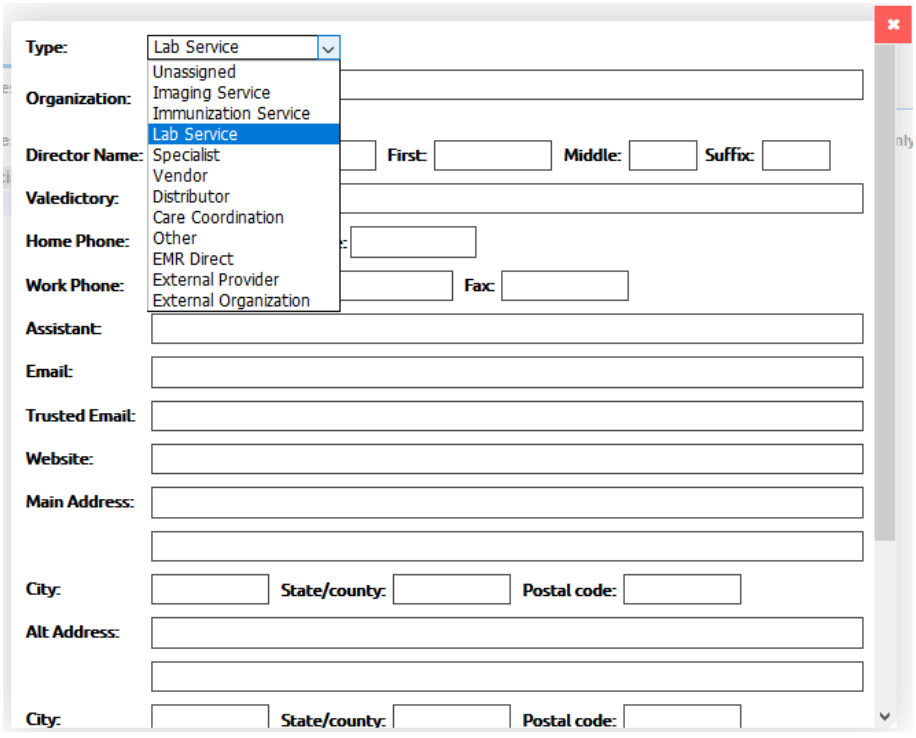
2. Procedure order administration

- Procedure order allows providers to send order to other local or external providers
    a. Lab test order
    b. Radiology image order
    c. Medication prescription
- To complete procedure, the admin has to make a number of preliminary steps:
    a. Add provider
    b. Configure order procedure
- Then, providers can add procedure order (e.g., lab order)

To add provider, the admin has to add provider data in the address Book as follows:

- **Select** Administration ➔ addr book
  Step 4 above
- **Add new organization data**

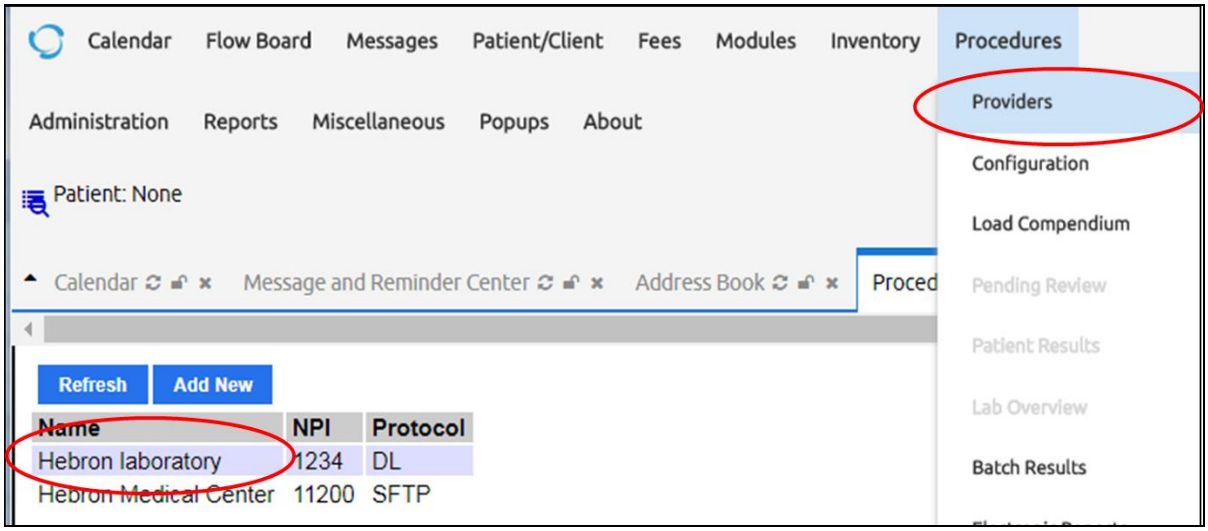
  Step 4 above
- **Select organization type ➔ Lab service**



- **Click save**

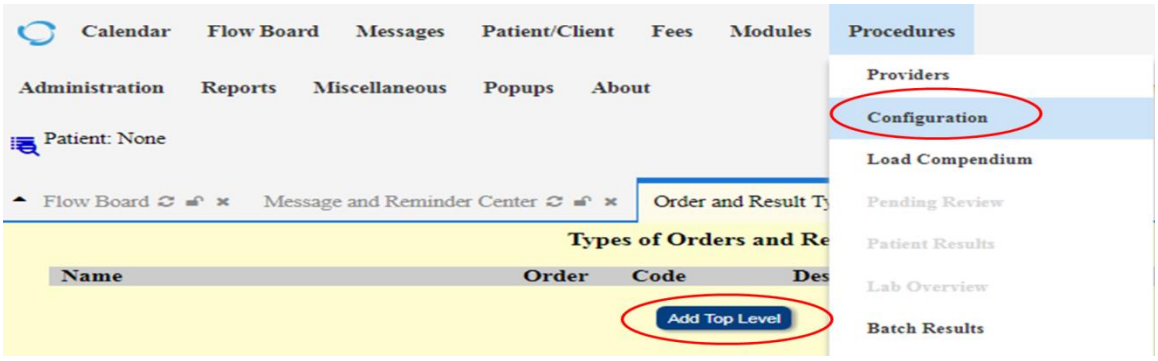
Then, create procedure provider as follows:

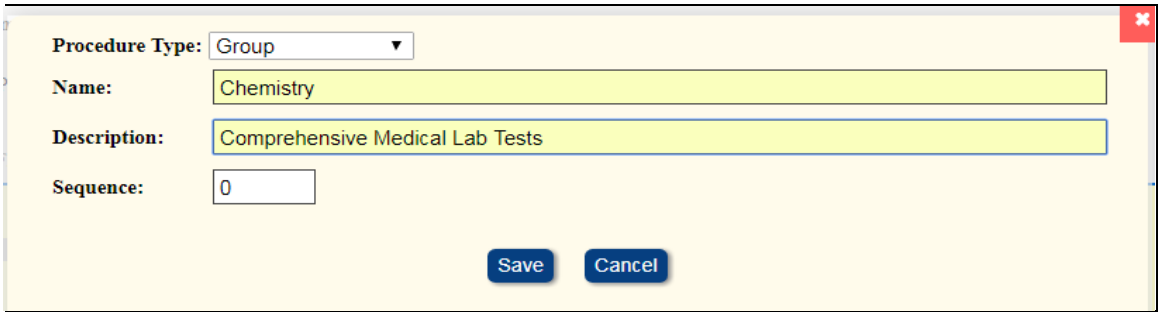
❖ Select **Procedure ➔ provider ➔ Add New**



To configure procedure order, the provider has to do:

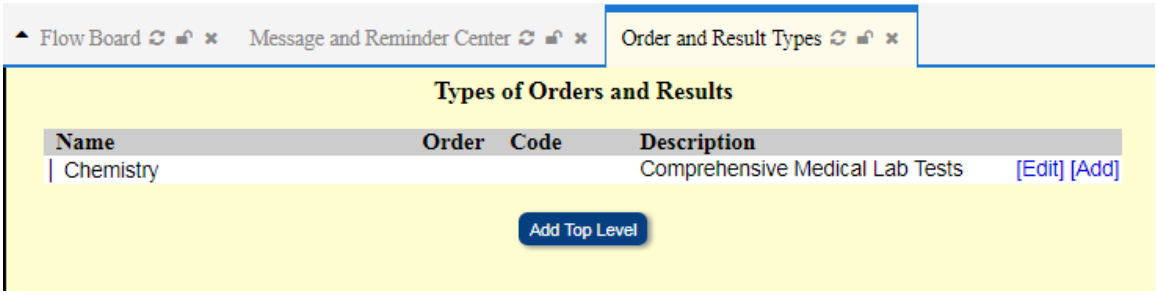
❖ Select **procedure ➔ configuration ➔ Add Top-Level**



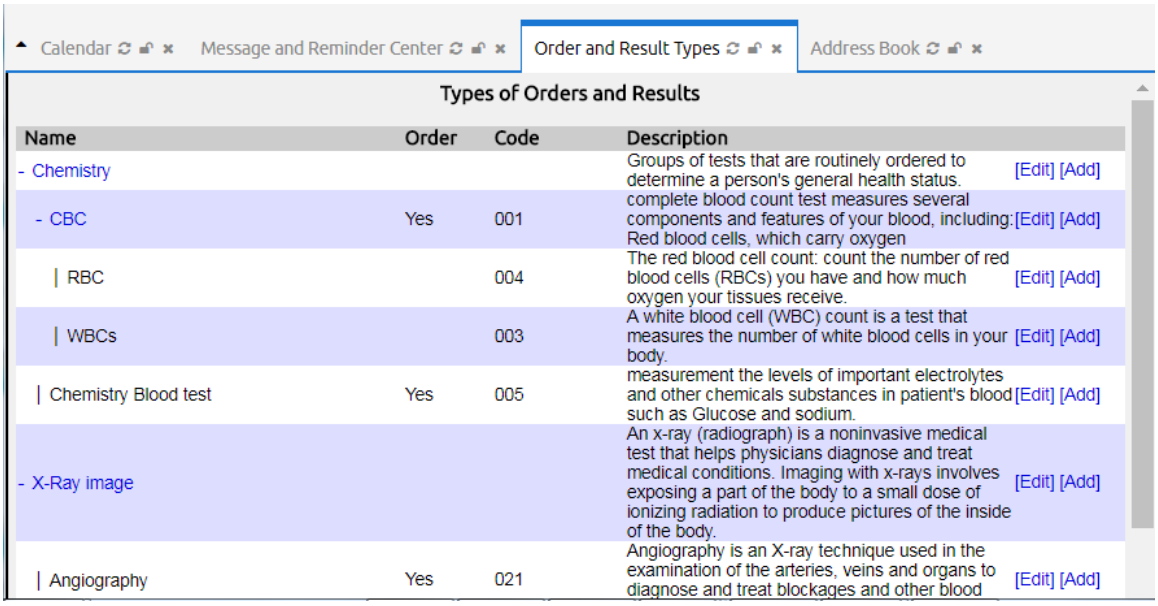


On right-side of Chemistry, click **Add**

- ❑ Add **CBC as Middle-Level** procedure order



- ❑ Add RBC as **Third-level** discrete lab test

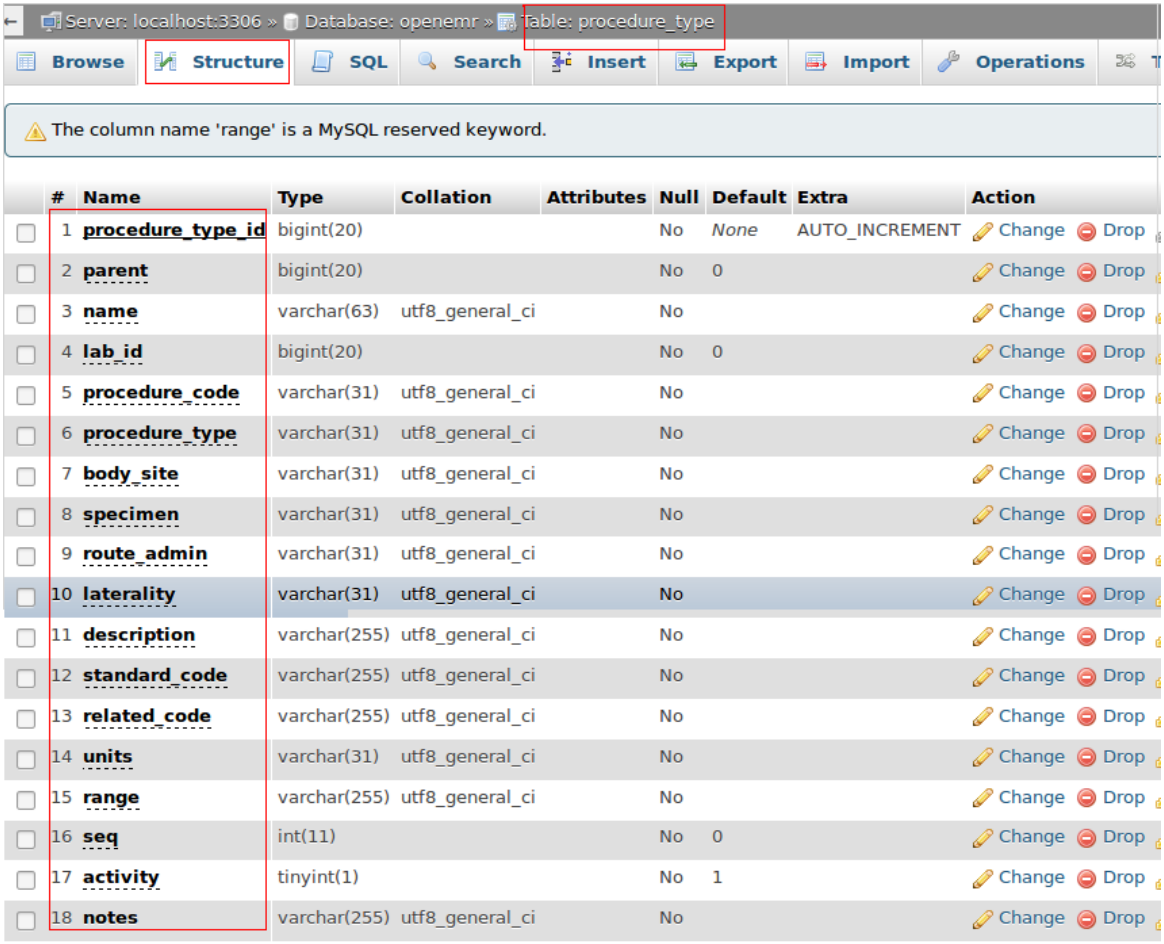


3. Procedure Order Preparations

First

Download this data set, Mayo_loinc.zip. Because phpMyAdmin will only accept a zipped .sql file (this is a zipped .csv file), it must be extracted before import.

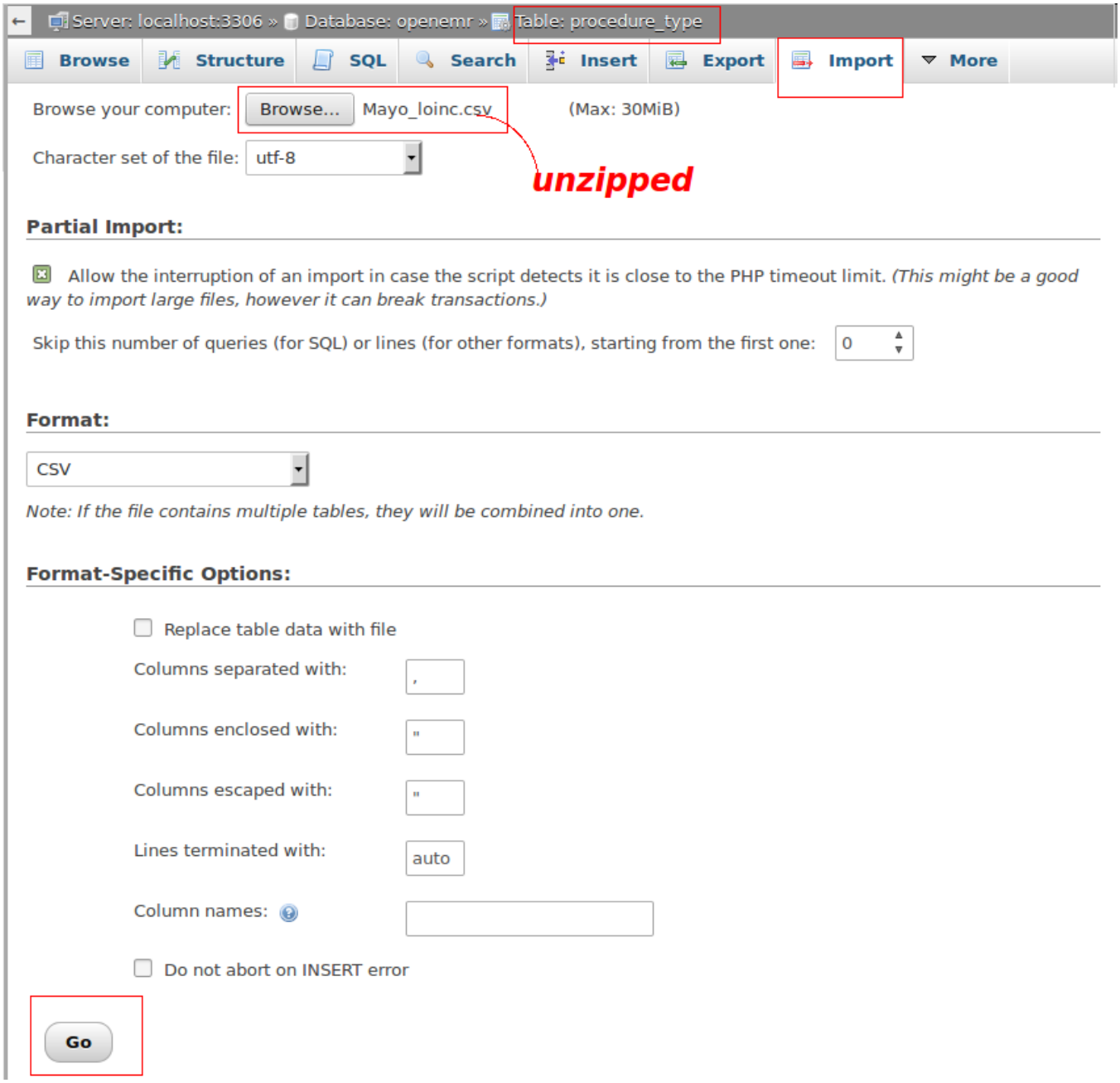
Understand the structure of the procedure_type table and the characteristics of each column.



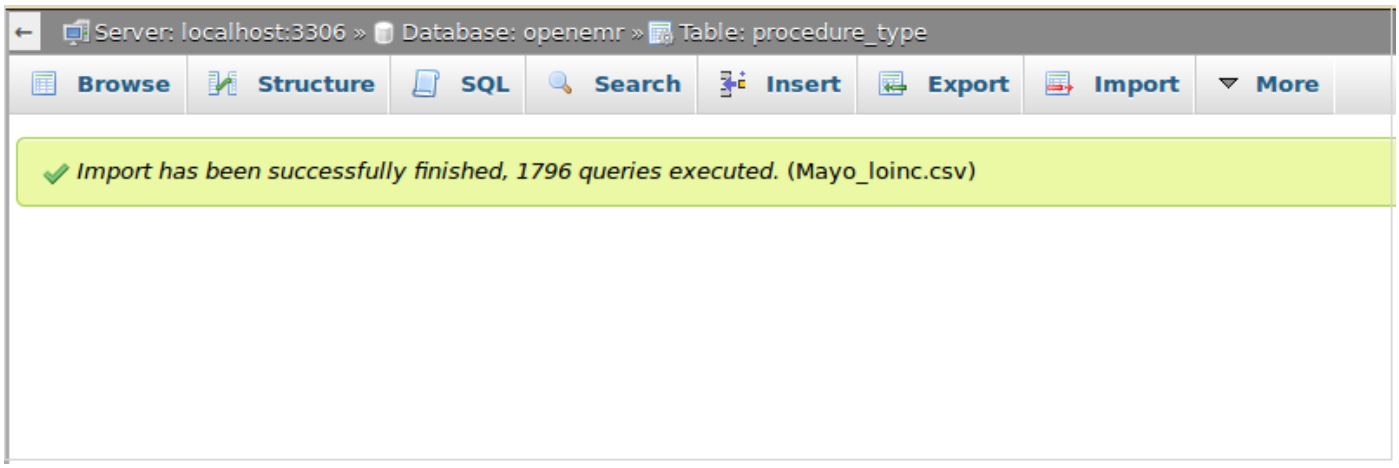
#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	procedure_type_id	bigint(20)			No	*None*	AUTO_INCREMENT	Change Drop
2	parent	bigint(20)			No	0		Change Drop
3	name	varchar(63)	utf8_general_ci		No			Change Drop
4	lab_id	bigint(20)			No	0		Change Drop
5	procedure_code	varchar(31)	utf8_general_ci		No			Change Drop
6	procedure_type	varchar(31)	utf8_general_ci		No			Change Drop
7	body_site	varchar(31)	utf8_general_ci		No			Change Drop
8	specimen	varchar(31)	utf8_general_ci		No			Change Drop
9	route_admin	varchar(31)	utf8_general_ci		No			Change Drop
10	laterality	varchar(31)	utf8_general_ci		No			Change Drop
11	description	varchar(255)	utf8_general_ci		No			Change Drop
12	standard_code	varchar(255)	utf8_general_ci		No			Change Drop
13	related_code	varchar(255)	utf8_general_ci		No			Change Drop
14	units	varchar(31)	utf8_general_ci		No			Change Drop
15	range	varchar(255)	utf8_general_ci		No			Change Drop
16	seq	int(11)			No	0		Change Drop
17	activity	tinyint(1)			No	1		Change Drop
18	notes	varchar(255)	utf8_general_ci		No			Change Drop

Second

Navigate from the Menu to Administration/Other/Database. From the 4th page of the database, go to procedure_type, then to the Import tab. Browse for the unzipped file and click Go.



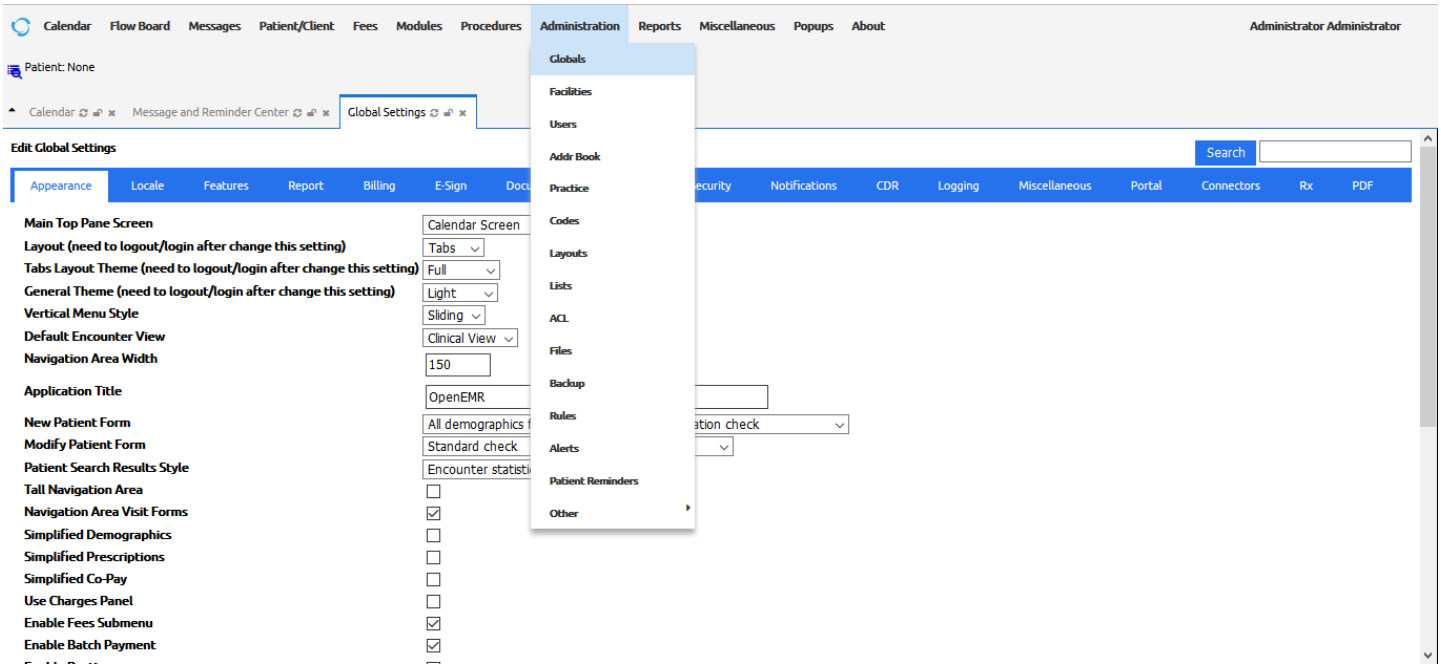
If all goes well, you should see the following.



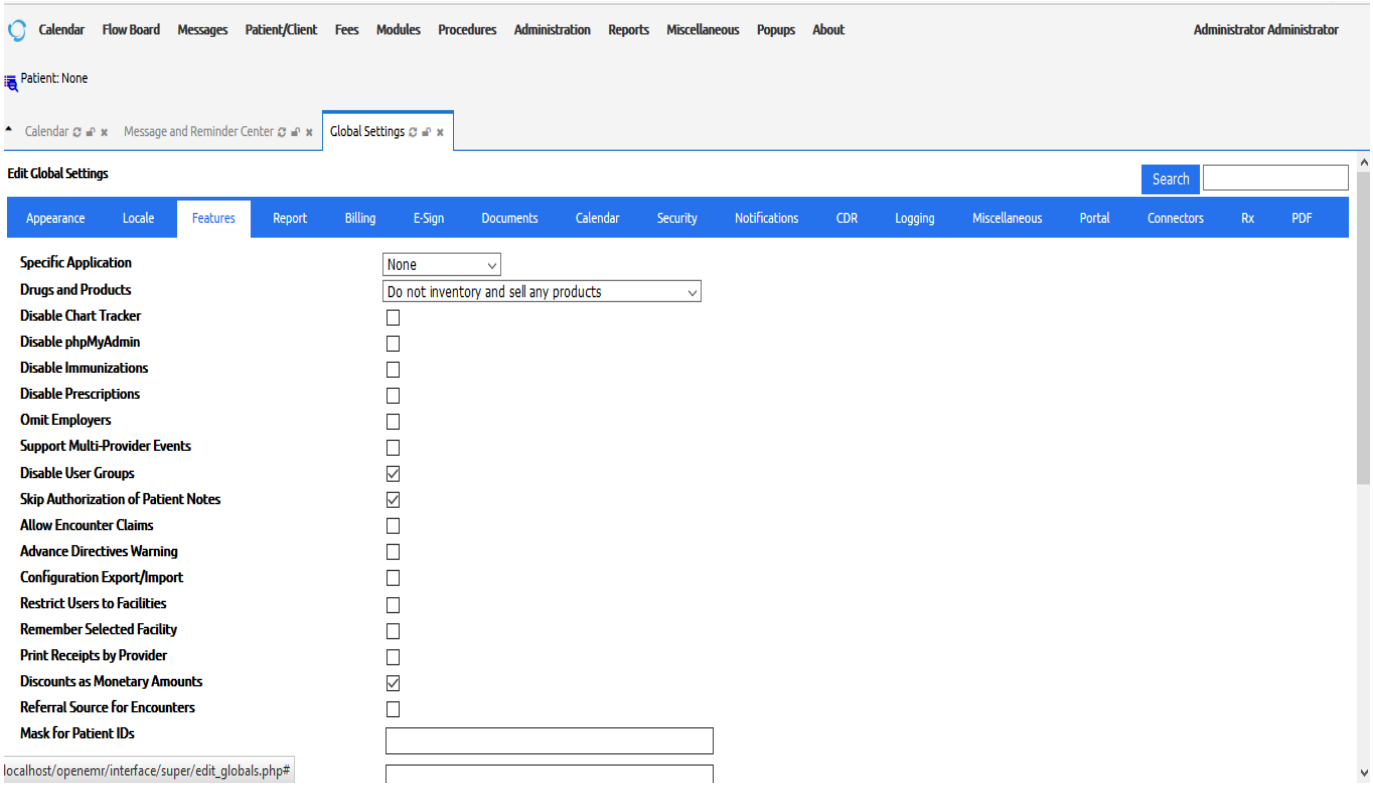
4. Manage Pharmacy

Pharmacy Dispensary Module must be activated before it can be used. To activate it, the **admin** has to do the following:

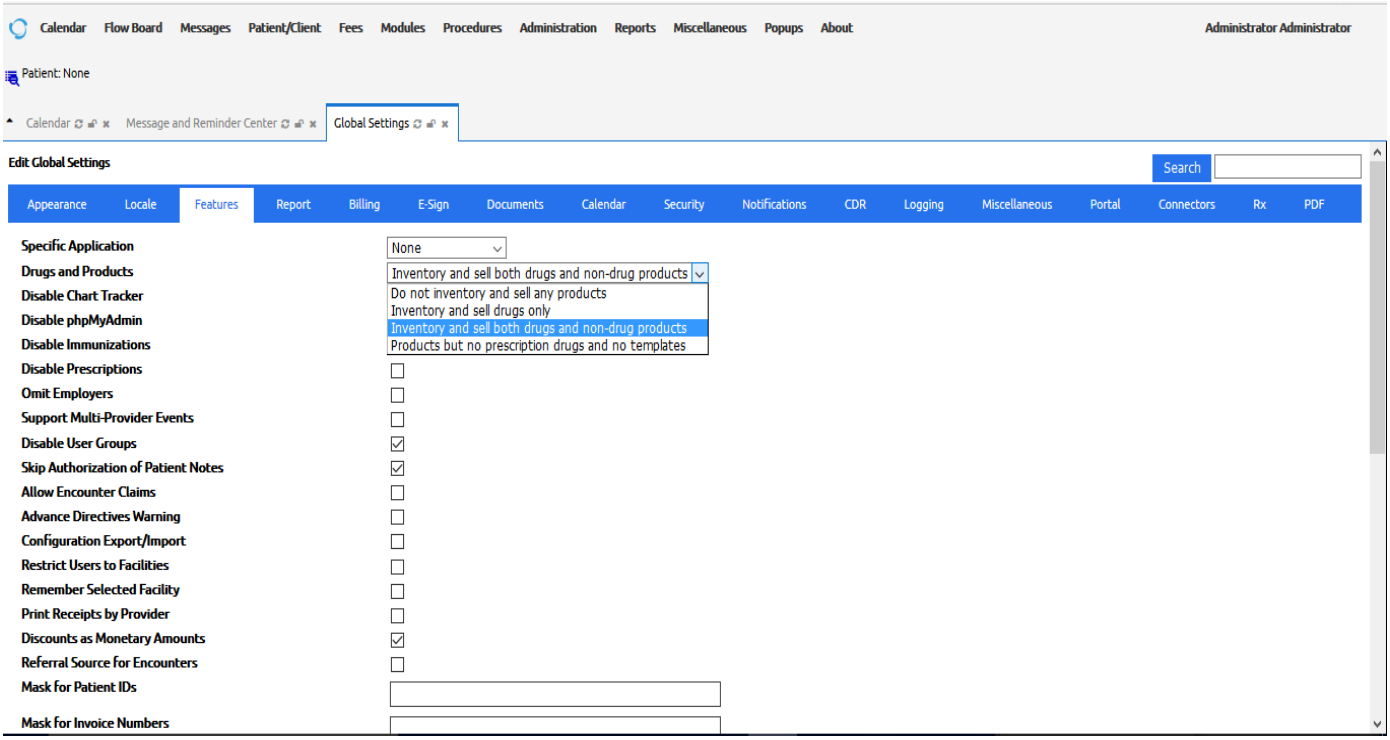
- Select **Administration ➔ Globals** menu



- Select **Feature** tab

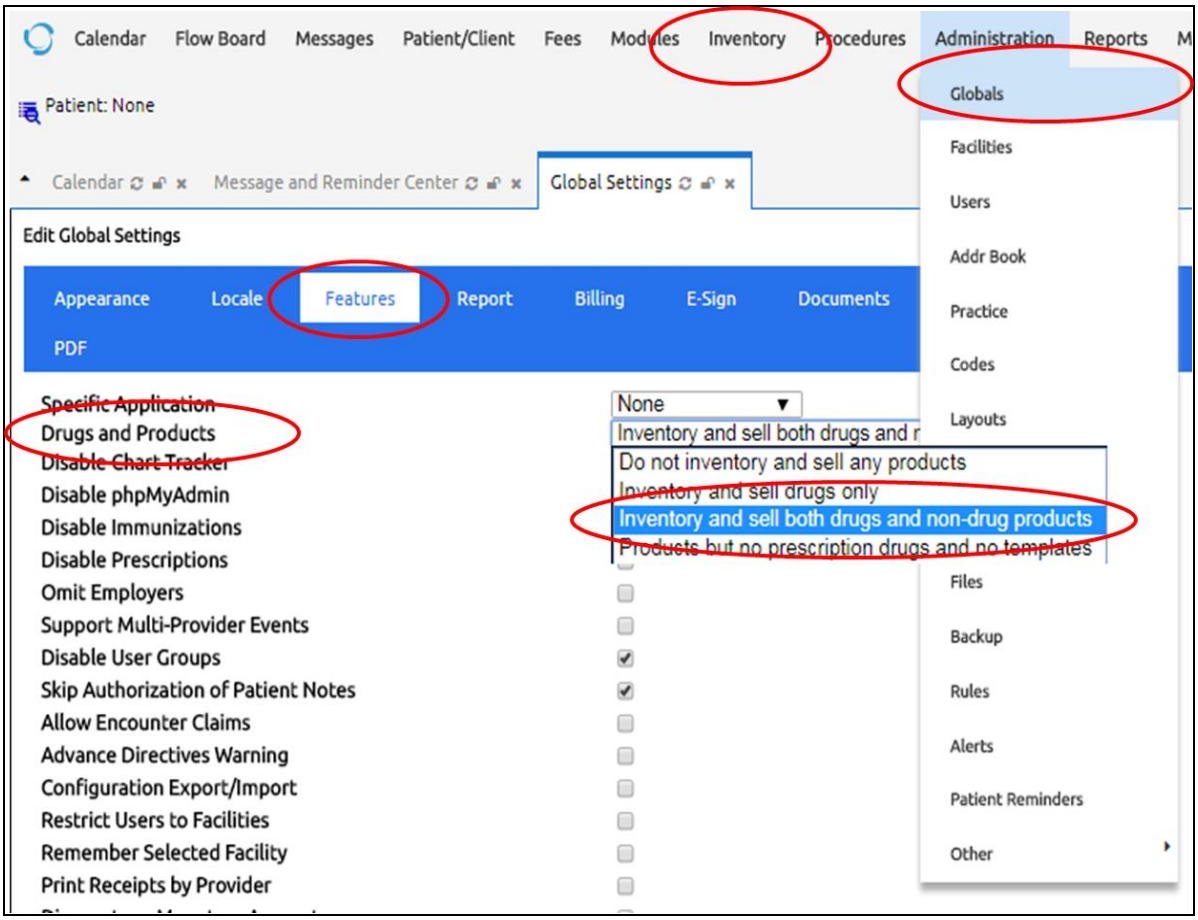


- Select the appropriate option from the combo box
  For example: Inventory and sell both drug and non-drug product



- Click **save**

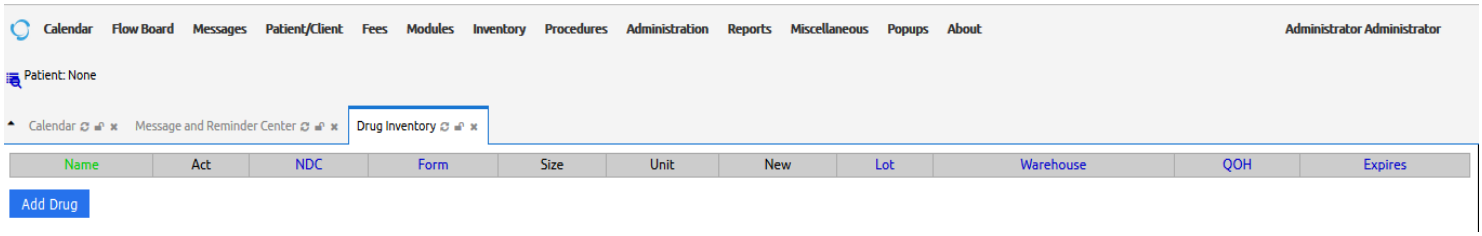
- When the Pharmacy Module is activated, the Inventory menu item appears in Navigation menu as in the following figure.



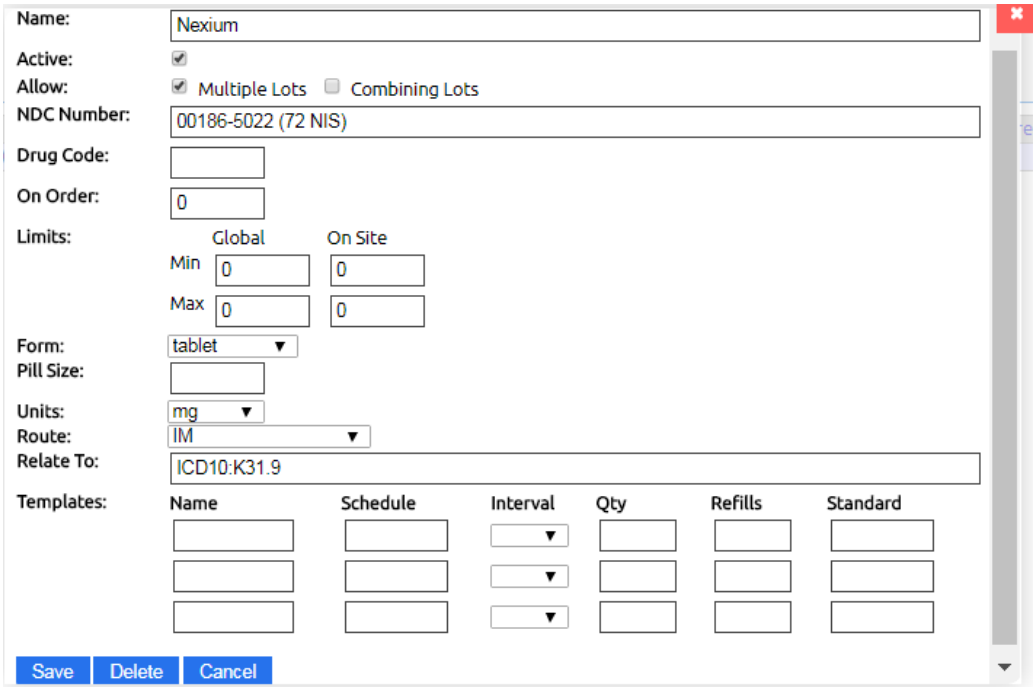
After activation of Pharmacy Module, admin/pharmacist can add drugs

- Select **Inventory ➔ Management**

- Click **Add Drug** button



❖ Enter **Drug** details and save



Practical Exercises

Consider the following health organization configuration:

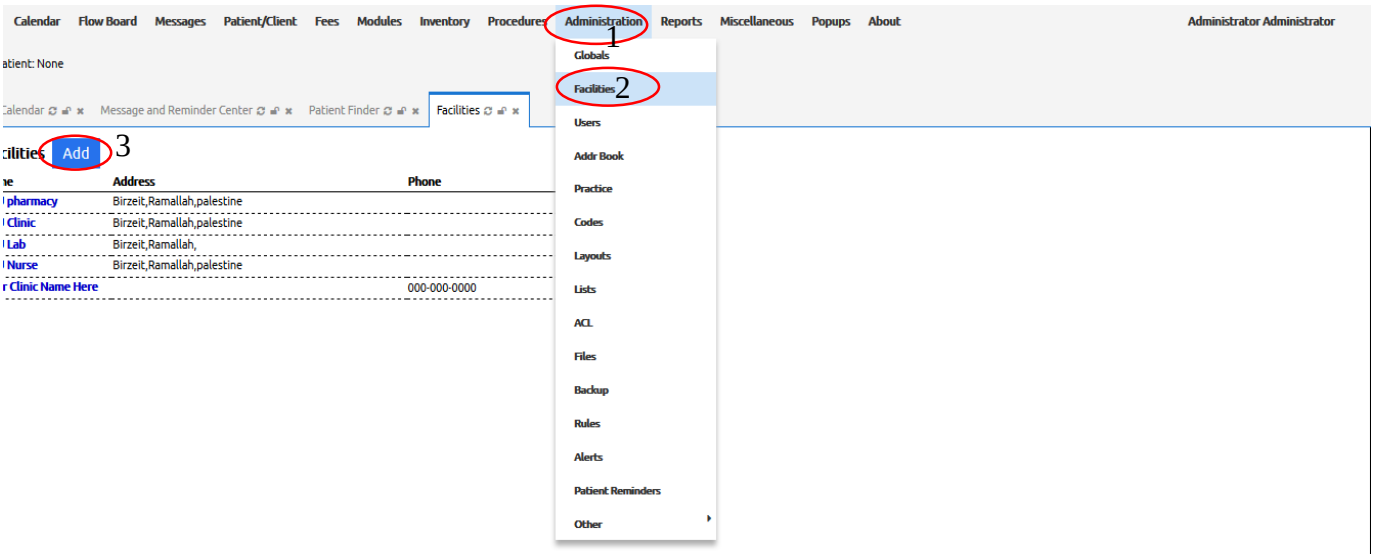
A health organization, named Shefa, has the following

- Three clinics, named Birzeit Clinic, Kober Clinic and Dir Sudan Clinic.
- Three laboratories, named Birzeit Laboratory, Kober Laboratory and Dir Sudan Laboratory.
- Three Pharmacies, named Birzeit Pharmacy, Kober Pharmacy and Dir Sudan Pharmacy.

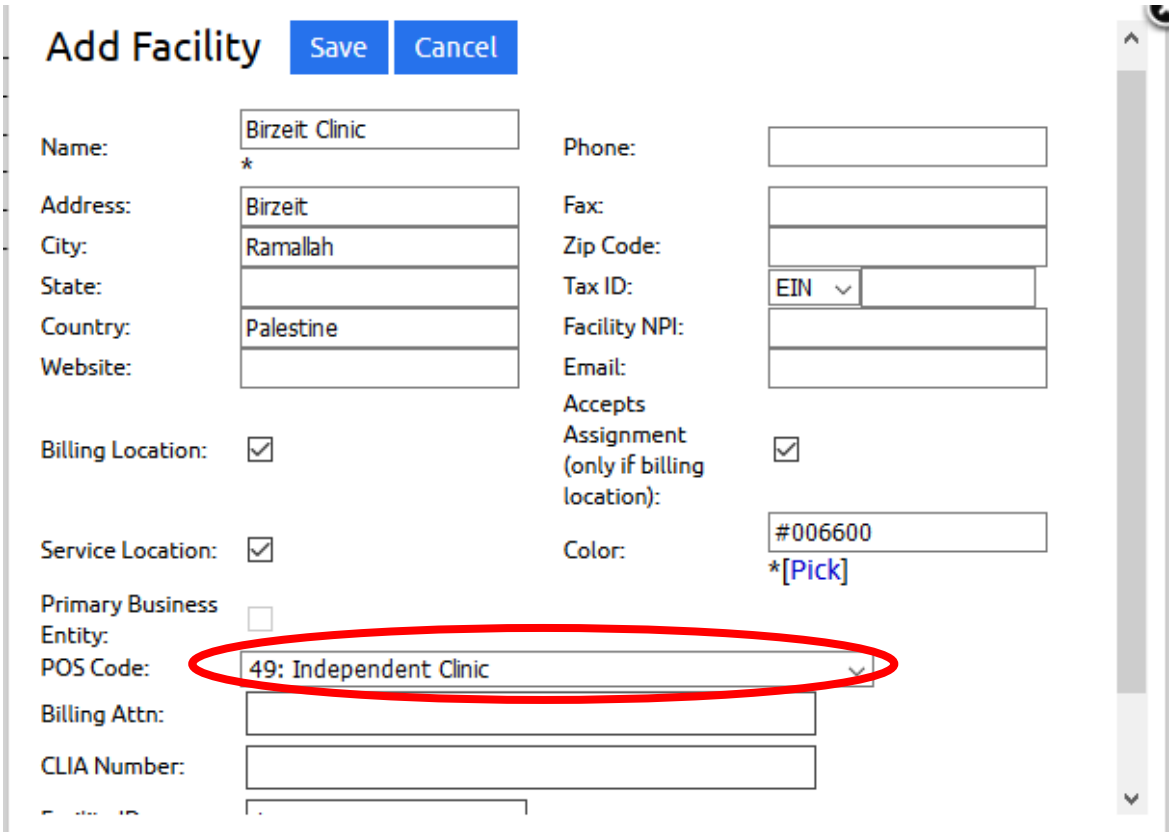
At Shefa, there are 3 receptionists staff work, named Sandy, Suzan, and Sandra one is located at each clinic. Also, there are five nurses, named Rida, Nuha, Sukaina, Imad and Khollood. Rida, Nuha at Birzeit Clinic, Sukina at Kober Clinic, and Imad and Kholloed at Dir Sudan Clinic.There are four doctors, named Lina at Birzeit Clinc, Khaled,Yousef at Kober Clinic, Munir at Dir Sudan Clinic. Finally, there are three MidLevel Prescribers at each clinic, named Sabrina, Sumaiya, and Nadeen.

Q1. Setup the openEMR system to add three clinics for Birzeit, Kober and Dir Sudan.

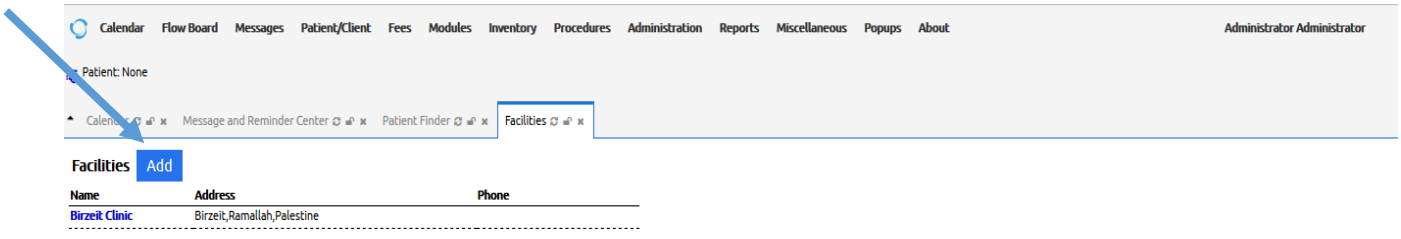
1. From **Administration** menu select **Facilities** and click on **Add** button as follow



2. Fill the facility form then press save as follows

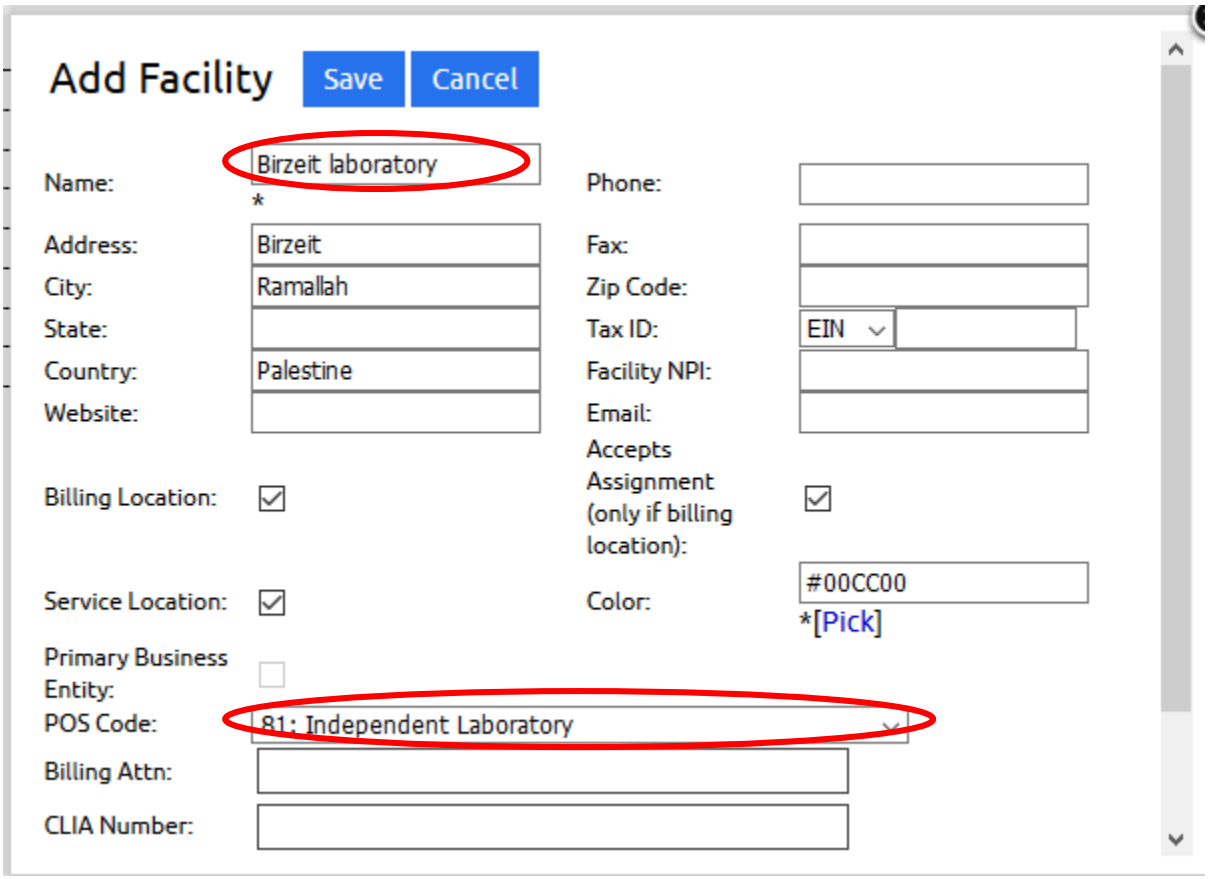


3. Click on the Add button to add the other clinics (Kober and Dir Sudan)



Q2. Setup the openEMR system to add three laboratories for Birzeit, Kober and Dir Sudan.

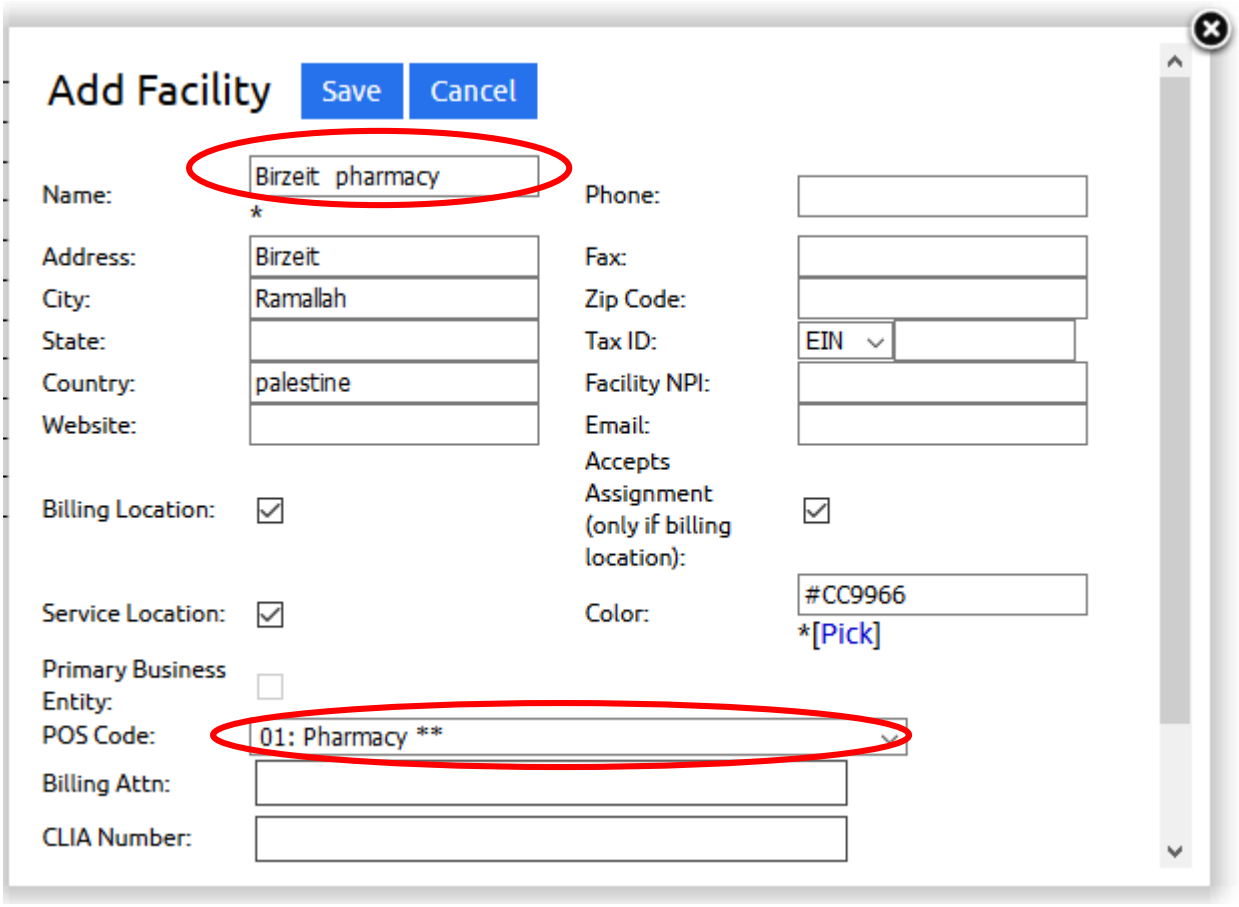
1. To add laboratories for Birzeit, Kober, and Dir Sudan. Repeat the steps that in question 1, and fill the facility form to be suitable with laboratory information. Change POS Code to be **Independent laboratory instead of Independent Clinic** as follows



2. Add other laboratories (Kober, and Dir Sudan)

Q3. Setup the openEMR system to add three pharmacies for Birzeit, Kober and Dir Sudan.

1. To add pharmacies for Birzeit, Kober, and Dir Sudan. Repeat the steps that in Q 1, and fill the facility form to be suitable with pharmacy information. Change POS Code to be **Pharmacy instead of Independent Clinic** as follows

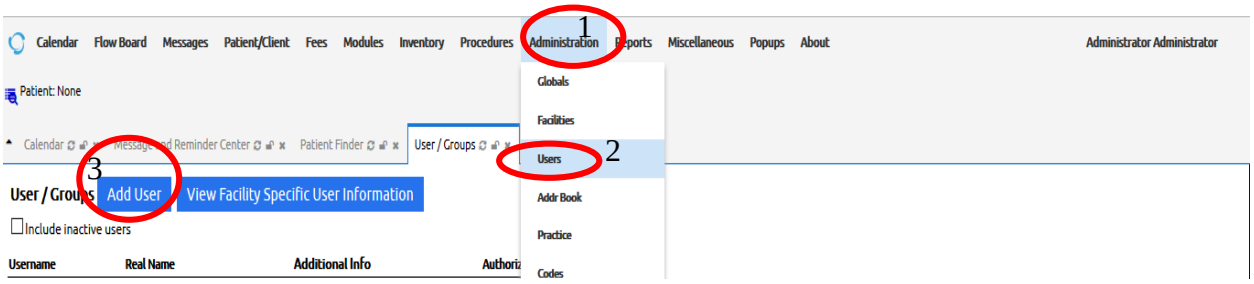


2. Add other pharmacies (Kober, and Dir Sudan)

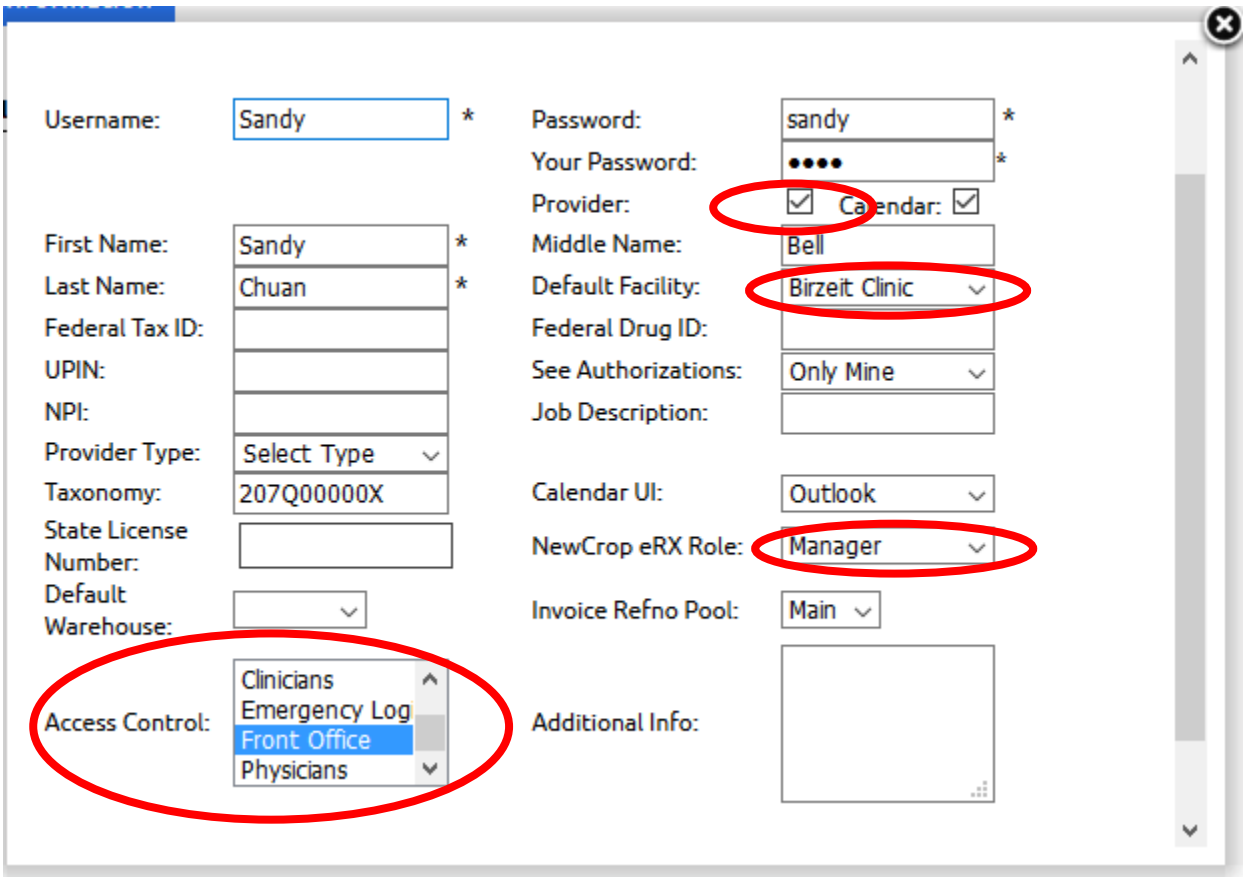
Q4. Configure the openEMR by adding the following users based on the data presented in the following table.

User	Role	Facility
Sandy	Receptionist	Birzeit clinic
Suzan		Kober clinic
Sandra		Dir Sudan clinic
Rida, Nuha	Nurse	Birzeit clinic
Sukaina		Kober clinic
Imad and Khollood		Dir Sudan clinic
Lina	Doctor	Birzeit clinic
Khalid, Yousef		Kober clinic
Munir		Dir Sudan clinic
Sabrina	MidLevel Prescriber	Birzeit Pharmacy
Maya		Kober Pharmacy
Nadeen		Dir Sudan Pharmacy

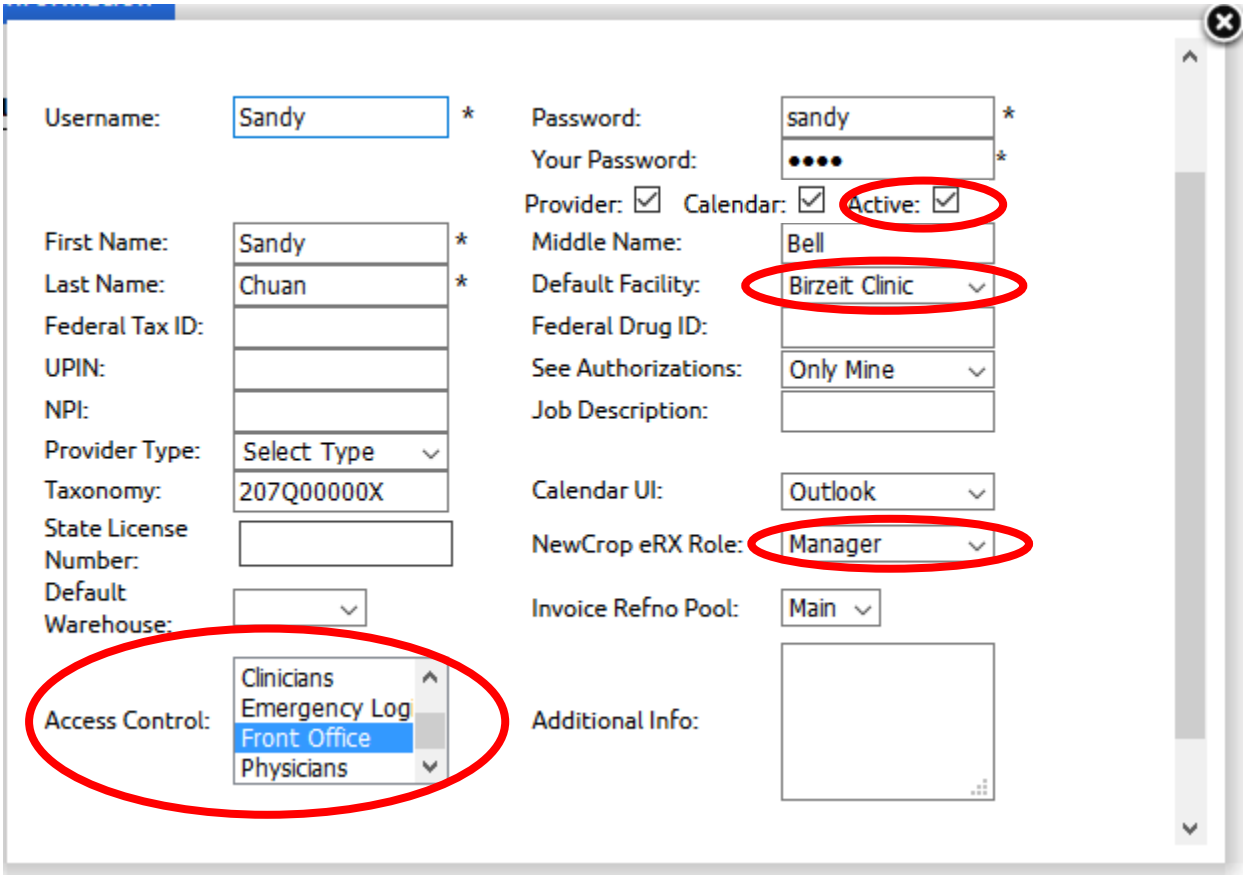
1. To add Sandy, Suzan, and Sandra as receptionists in the three clinics.
   I. From the **Administration** menu select **Users**, then click **Add User**



   II. Fill Sandy information inside the User Form

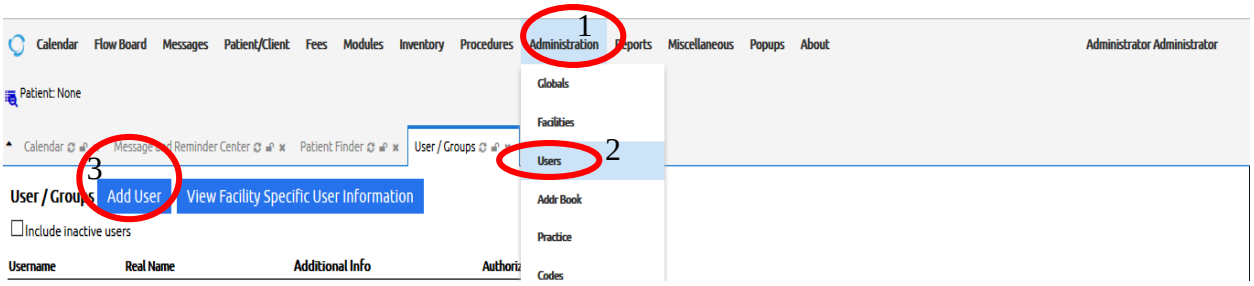


III. Edit the user to be **Active**

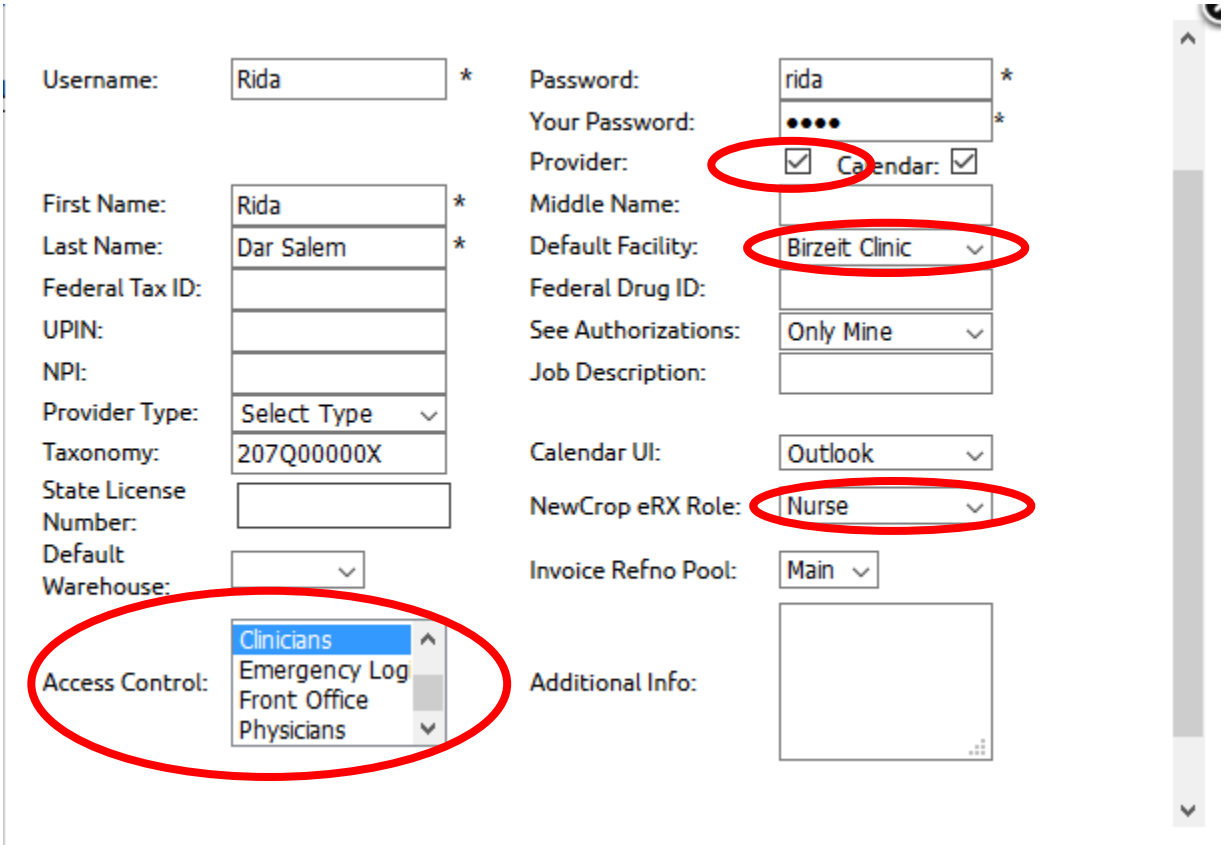


IV. Do same for Suzan and Sandra.

1. To add Rida, Nuha, Sukaina, Imad and Khollood as Nurses in the three clinics.
   I. From the **Administration** menu select **Users**, then click **Add User**



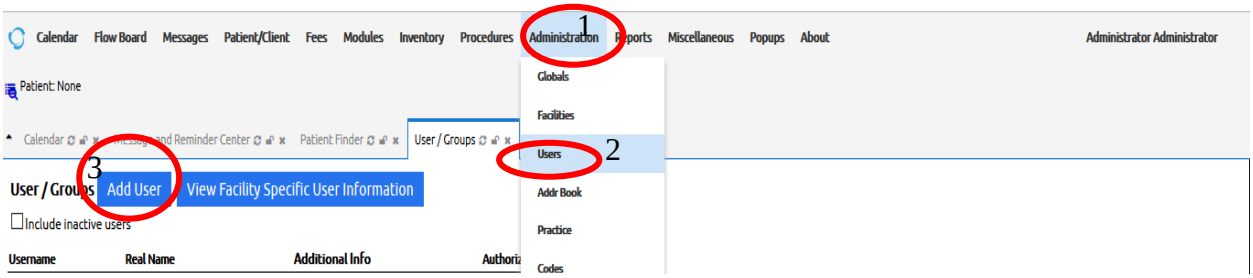
   II. Fill Rida information inside the User Form



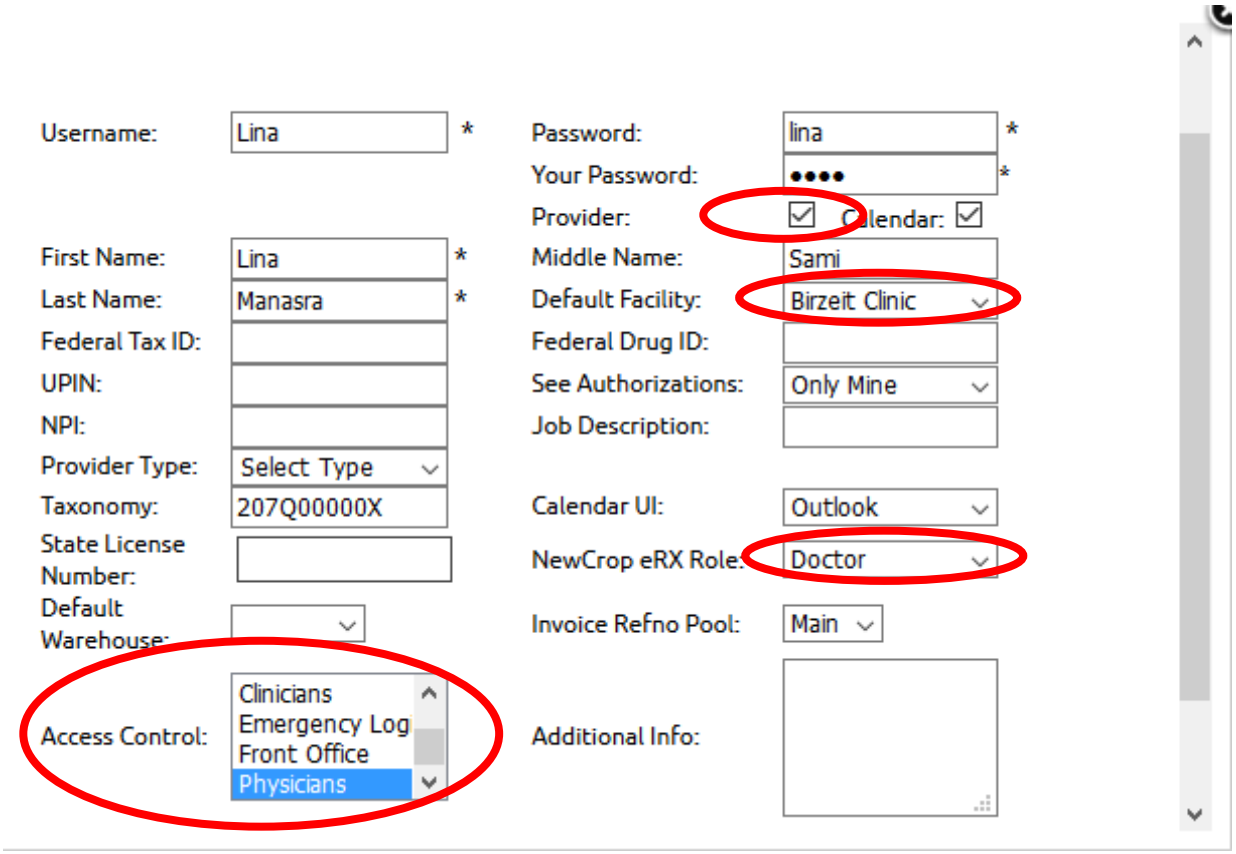
III. Edit the user to be **Active**
IV. Do the same for Nuha, Sukaina, Imad and Khollood

2. To add Lina, Khaled, Yousef, and Munir as Doctors in the three clinics.

I. From the **Administration** menu select **Users**, then click **Add User**



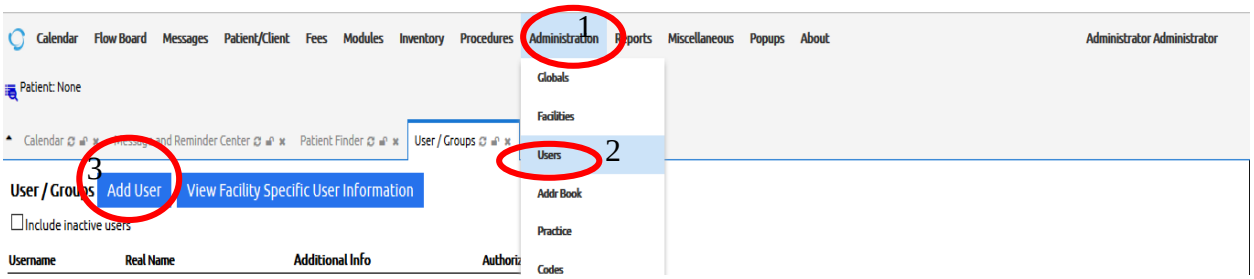
II. Fill Lina information inside the User Form



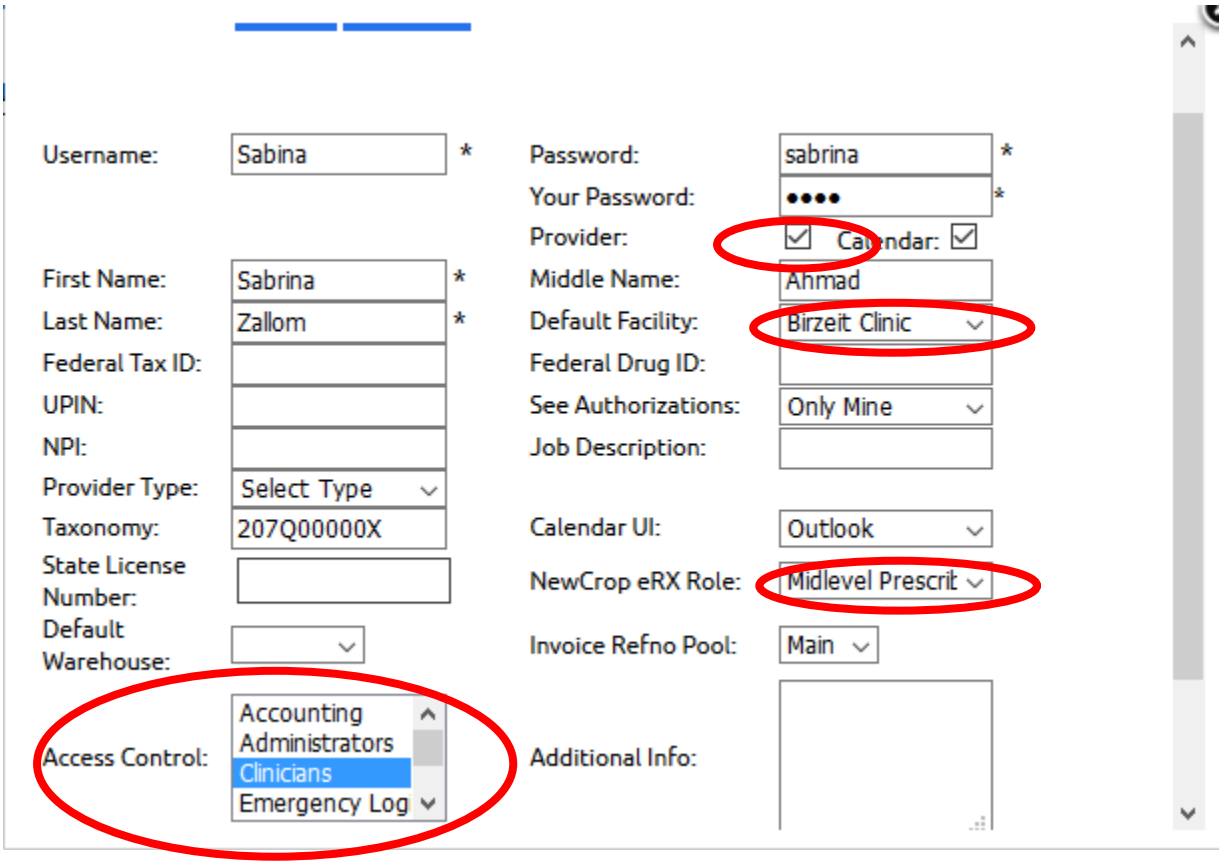
III. Edit the user to be **Active**
IV. Do the same for Khaled, Yousef, and Munir

3. To add Sabrina, Sumaiya, and Nadeen as receptionists in the three clinics.

I. From the **Administration** menu select **Users**, then click **Add User**



II. Fill Sabrina information inside the User Form



III. Edit the user to be **Active**

IV. Do the same for Sumaiya, and Nadeen