

HOW TO

Workgroup 0102

Maryna Abitova (01468249)
Cordula Eggerth (0750881)
Veronika Lomasow (01200993)
Neli Petkova (1104500)

To start the program, there are two options:













Option 1 (Runnable JAR in the „implementation“ folder):

The executable JAR file can be downloaded from the git repository and can then be saved locally. By the means of a double click on the executable JAR file or running the JAR with the help of the command line (`java -jar telemed.jar`), the application can be run. The WindowBuilder Application starts and the Login Window is opened. From this point of time onwards, the various use cases, which were depicted in the use case diagram, can be accessed, depending on the type of user you choose to register and to log in.

Option 2 (download of git repository hierarchy and running the application in the Eclipse IDE):

The repository can be pulled from git and imported into Eclipse IDE as an EMF Modeling Project. The prerequisite to import the EMF Project is that the Eclipse Modeling Framework is already installed in the Eclipse you use.

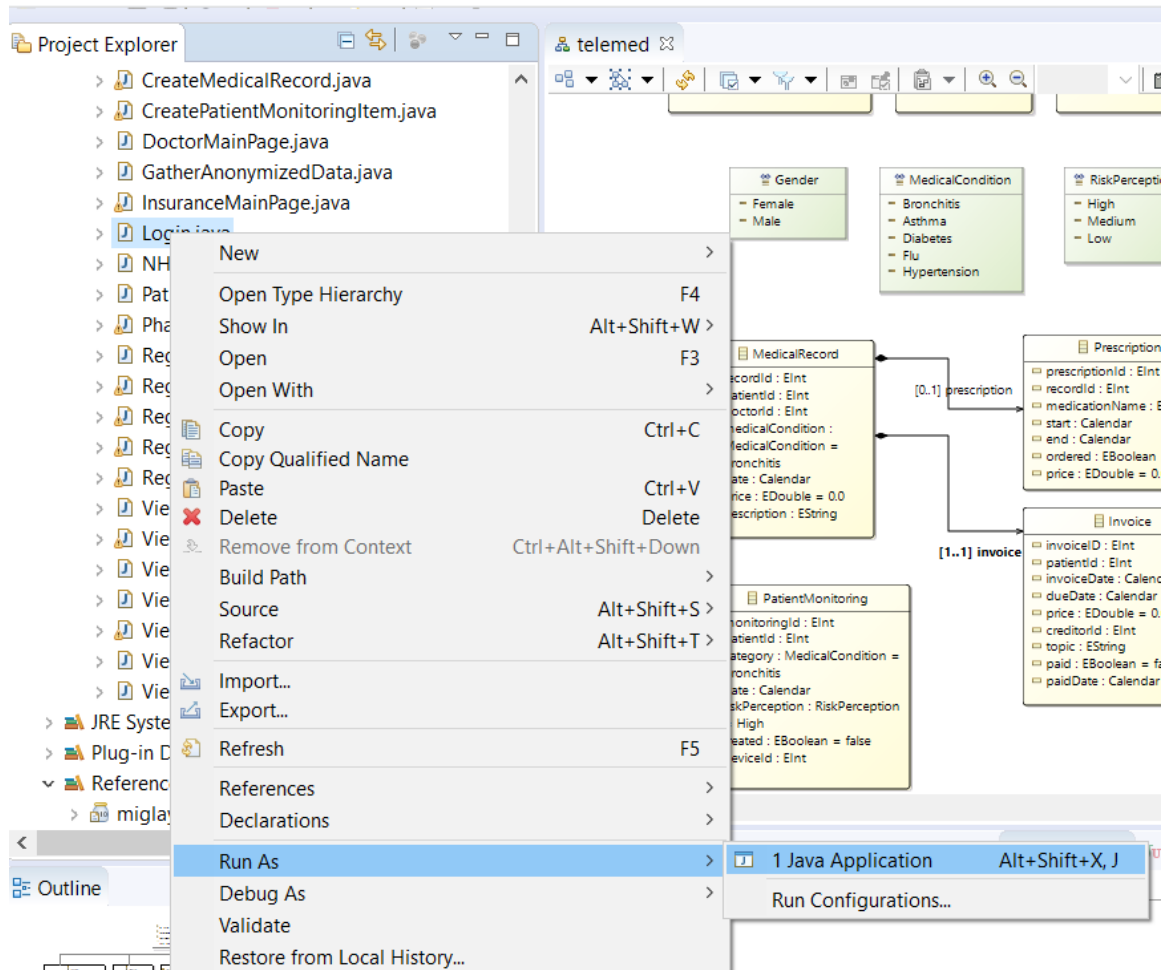
At the beginning, the following libraries should be added:

-  commons-collections4-4.1.jar
-  commons-csv-1.5.jar
-  jdatepicker-1.3.4.jar
-  miglayout-src.zip
-  miglayout15-swing.jar
-  ooxml-schemas-1.3.jar
-  plugin.properties
-  plugin.xml
-  poi-3.17.jar
-  poi-ooxml-3.17.jar
-  userlist.ser
-  xmlbeans-2.3.0.jar

The first one is necessary for the GUI layout, and the second one is necessary for the date picker format in the GUI form where dates need to be entered by the user.

WindowBuilder / SwingDesigner needs to be installed, so that the GUI can be run.

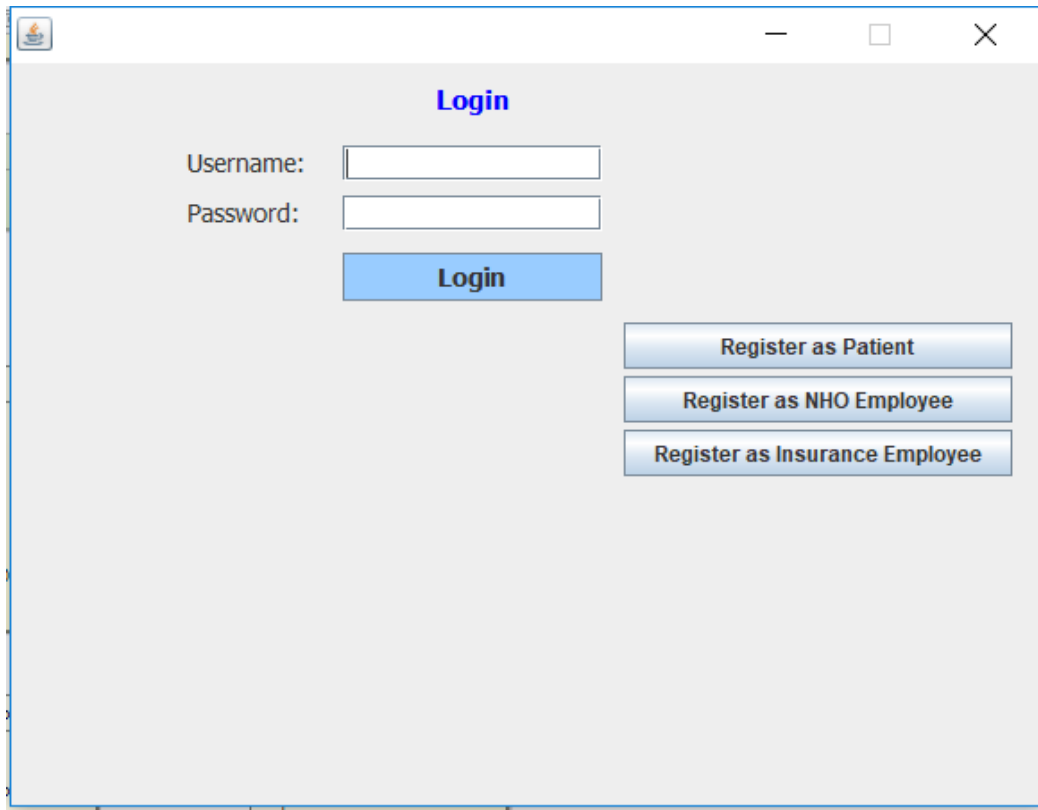
The GUI window „Login“ is the first window, which is started when running the application. Therefore, this window should be used to run the project as a Java Application, as it is showed below:



Using the GUI:

Login:

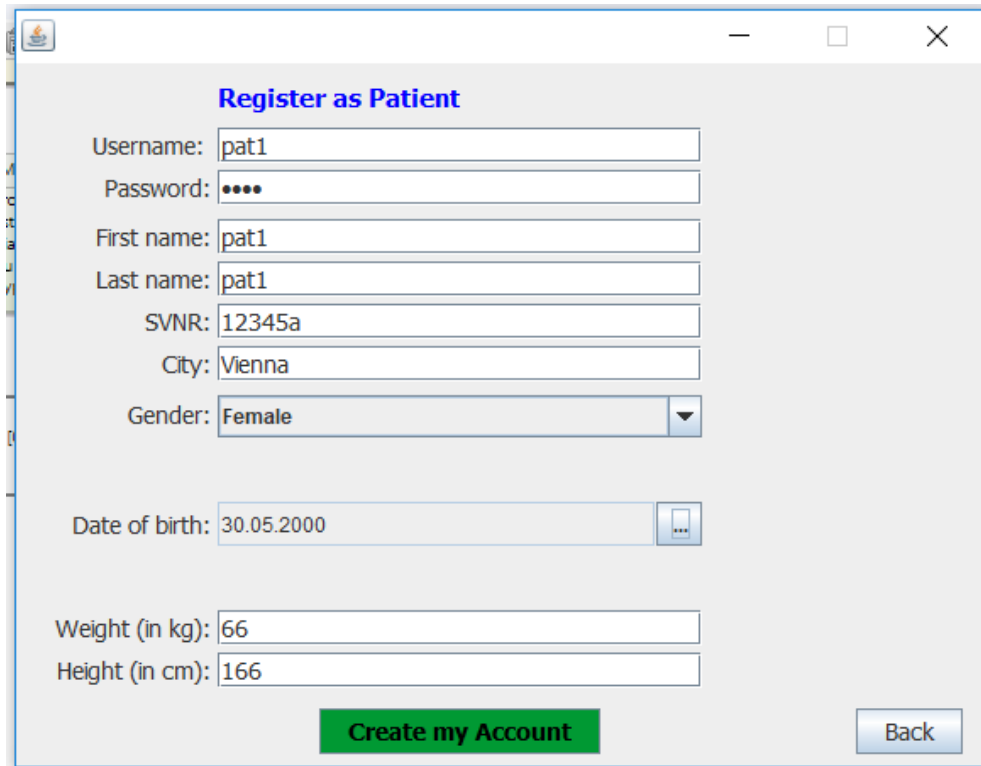
If you run the Login application window, the login opens and you are requested to either register as a Patient, NHO Employee or Insurance Employee and then login or to directly login with existing user data (see screenshot below). The Patient, the NHO Employee, the Insurance Employee and the Doctor are all User types, but have different use cases available in their corresponding main page menu.



The screenshot shows a web application window with a light gray background. At the top center, the word "Login" is displayed in blue. Below it, there are two input fields: "Username:" and "Password:". To the right of these fields is a blue button labeled "Login". Further to the right, there are three stacked buttons: "Register as Patient", "Register as NHO Employee", and "Register as Insurance Employee". The window has a standard title bar with a minimize button, a maximize button, and a close button.

Register as Patient:

To create a Patient account, you need to enter username, password, first name, last name, svnr (= social insurance number), city, gender, date of birth, weight and height. Then click the button “Create My Account” and the registration will be completed and you will see a pop-up notification message. You will be forwarded to the login page automatically.



Register as Patient

Username:

Password:

First name:

Last name:

SVNR:

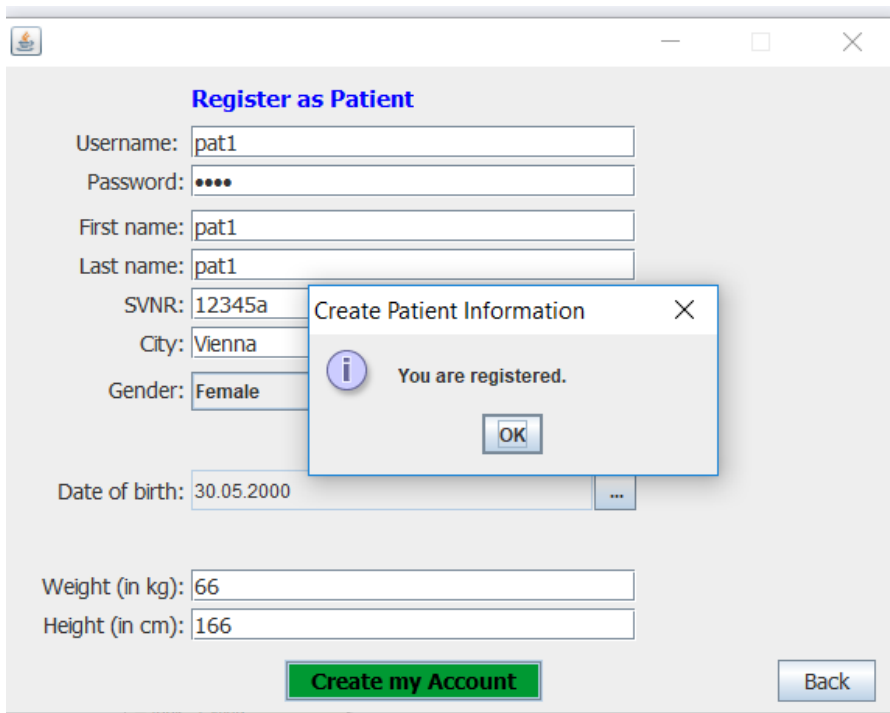
City:

Gender:

Date of birth:

Weight (in kg):

Height (in cm):



Register as Patient

Username:

Password:

First name:

Last name:

SVNR:

City:


Gender:

Date of birth:

Weight (in kg):

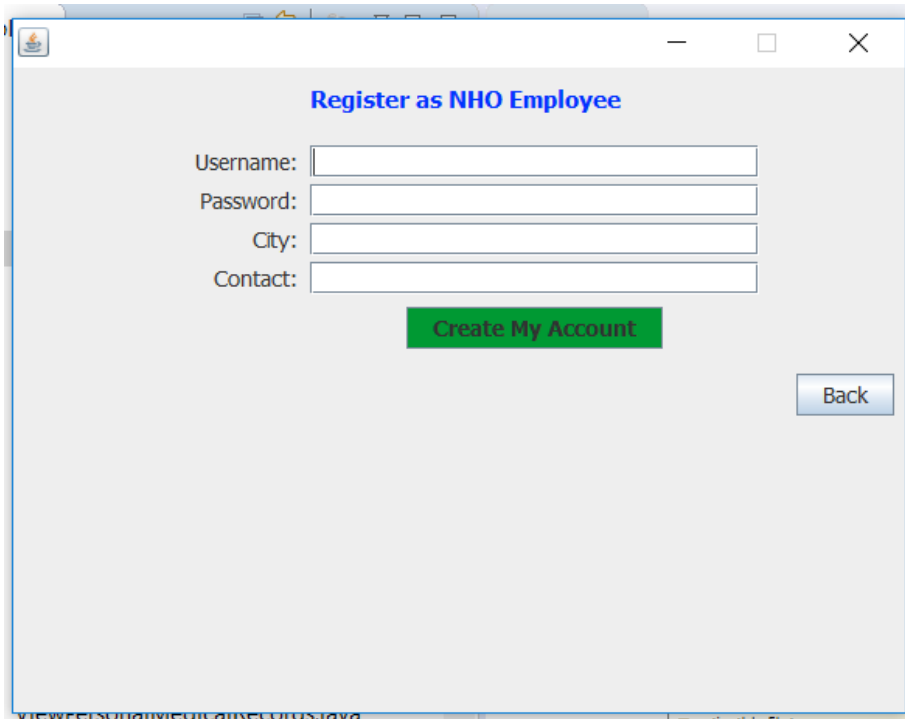
Height (in cm):

Create Patient Information

 You are registered.

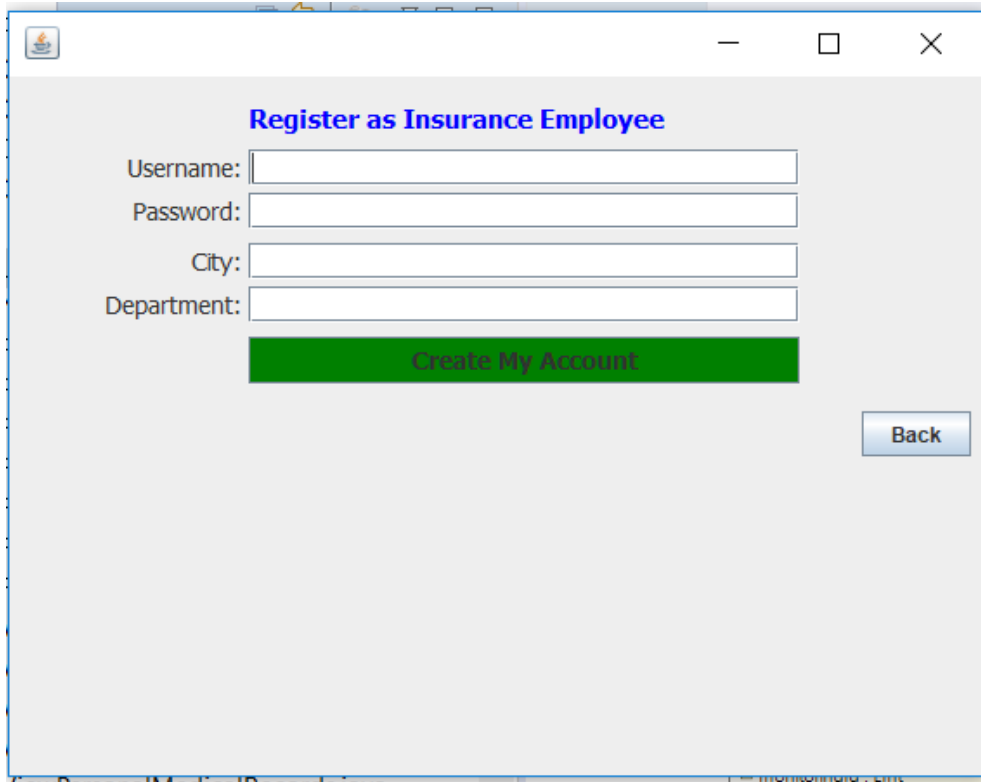
Register as NHO Employee:

To register as an NHO Employee, you need to enter a username, password, city and contact. Then click the button “Create My Account” and you will receive a notification whether the registration was successful.

A screenshot of a web browser window displaying a registration form titled "Register as NHO Employee". The form contains four input fields: "Username:", "Password:", "City:", and "Contact:". Below these fields is a prominent green button labeled "Create My Account". To the right of this button is a smaller, light blue button labeled "Back". The browser's address bar at the bottom shows the URL "viewpersonnelmedicalrecords.java".

Register as Insurance Employee:

To register as an Insurance Employee, you need to enter a username, password, city and department information. Then click the button “Create My Account” and you will receive a notification whether the registration was successful.

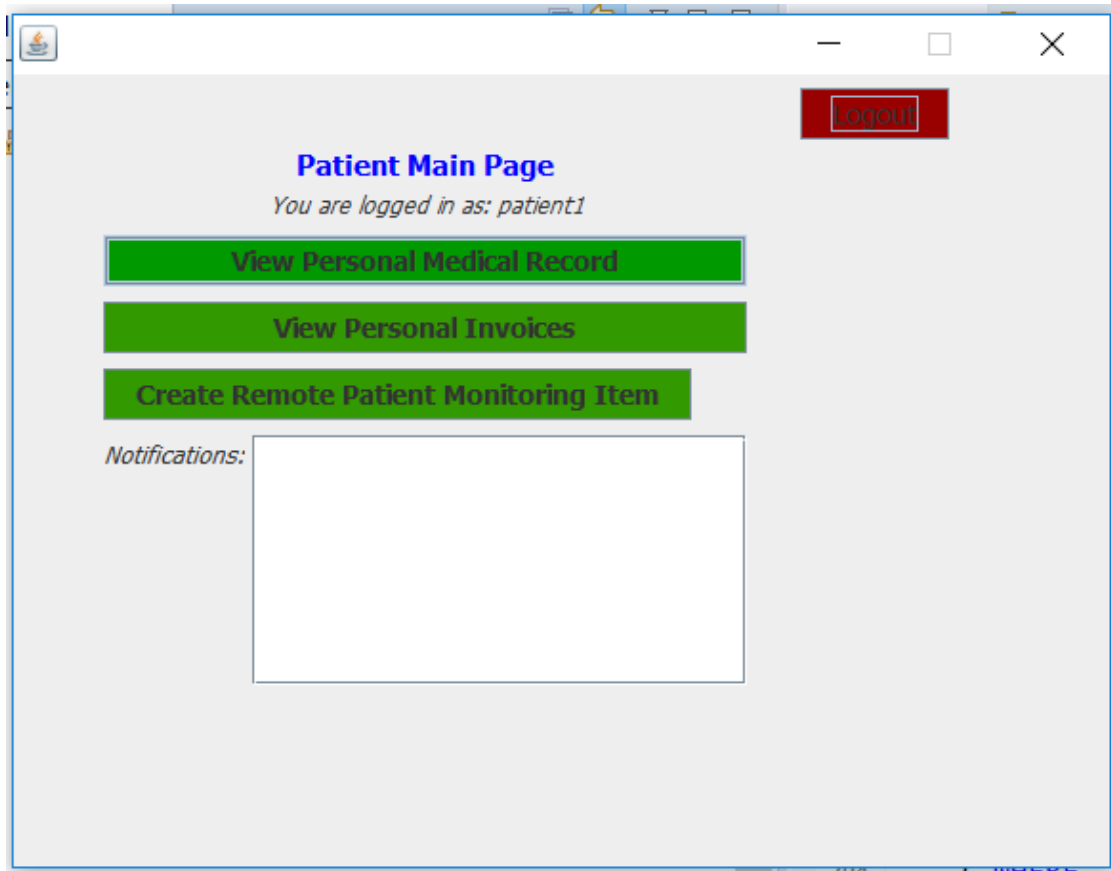


The screenshot shows a web application window with a title bar containing a small icon and standard minimize, maximize, and close buttons. The main content area has a light gray background and is titled "Register as Insurance Employee" in blue text. Below the title, there are four input fields: "Username:", "Password:", "City:", and "Department:". Each field is a white rectangle with a thin gray border. Below these fields is a large green button with the text "Create My Account" in white. To the right of the green button is a smaller, light blue button with the text "Back" in black. The window is partially overlapping other windows in the background, which are visible as faint outlines on the right side.

Patient Main Page:

If you are logged in as a Patient, the username with which you logged in is displayed in the upper area. You can now logout at any time upon click on the "Logout" button. As a Patient user, you can view your personal medical records

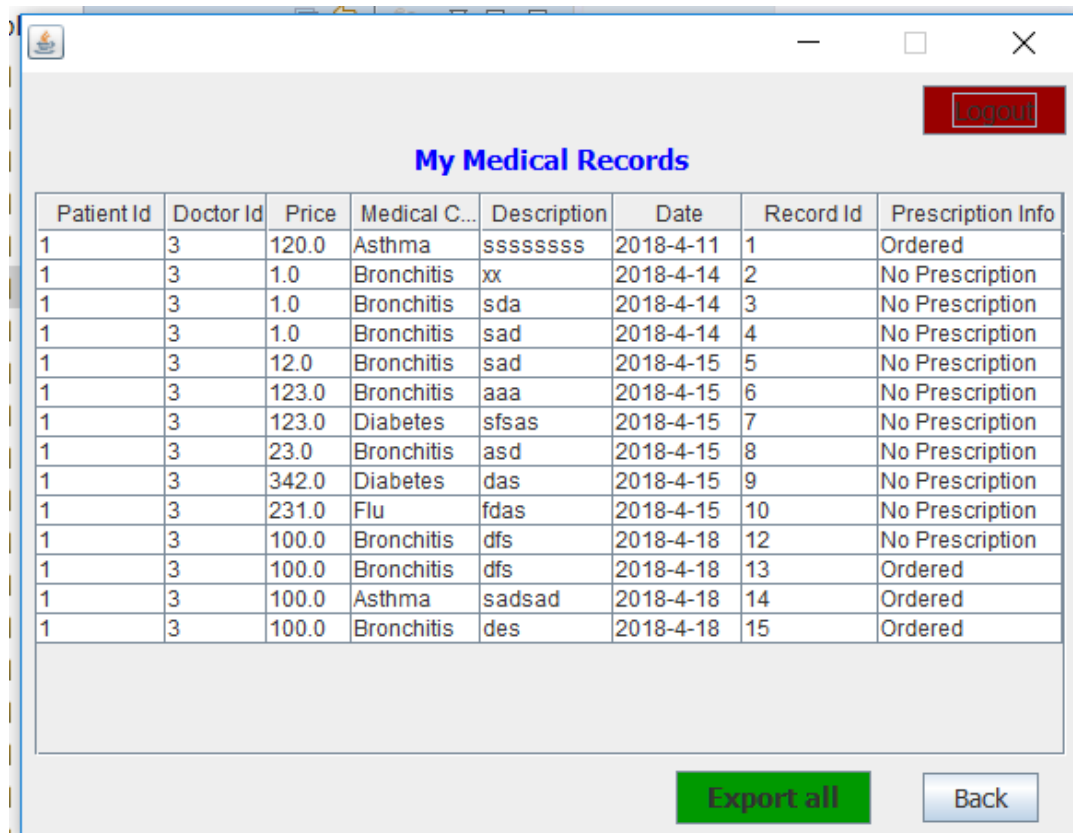
list and your personal invoices. If you feel you want to remotely enter medical information/requests to be reviewed by a doctor, you can create a remote patient monitoring item to communicate your medical condition. If important changes of information regarding your telemedicine system account have taken place, you will be notified directly in the lower section of the Patient main page.



Patient Main Page > View Personal Medical Records:

If you are logged in as a Patient and you click on “View Personal Medical Records”, a list of all your personal medical records with the corresponding

details will be displayed. Once you are done with reviewing the information you can navigate back to the Patient main menu upon click of the button “Back”.

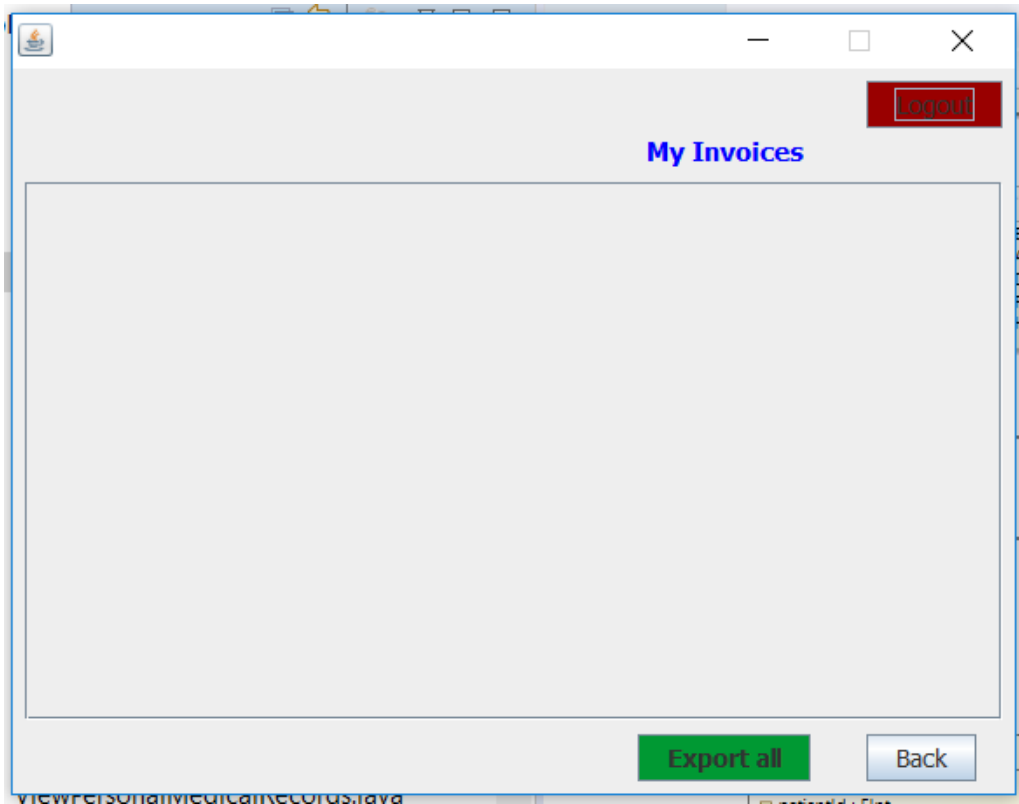


Patient Id	Doctor Id	Price	Medical C...	Description	Date	Record Id	Prescription Info
1	3	120.0	Asthma	ssssssss	2018-4-11	1	Ordered
1	3	1.0	Bronchitis	xx	2018-4-14	2	No Prescription
1	3	1.0	Bronchitis	sda	2018-4-14	3	No Prescription
1	3	1.0	Bronchitis	sad	2018-4-14	4	No Prescription
1	3	12.0	Bronchitis	sad	2018-4-15	5	No Prescription
1	3	123.0	Bronchitis	aaa	2018-4-15	6	No Prescription
1	3	123.0	Diabetes	sfsas	2018-4-15	7	No Prescription
1	3	23.0	Bronchitis	asd	2018-4-15	8	No Prescription
1	3	342.0	Diabetes	das	2018-4-15	9	No Prescription
1	3	231.0	Flu	fdas	2018-4-15	10	No Prescription
1	3	100.0	Bronchitis	dfs	2018-4-18	12	No Prescription
1	3	100.0	Bronchitis	dfs	2018-4-18	13	Ordered
1	3	100.0	Asthma	sadsad	2018-4-18	14	Ordered
1	3	100.0	Bronchitis	des	2018-4-18	15	Ordered

Patient Main Page > View Personal Invoices:

If you are logged in as a Patient and you click on “View Personal Invoices”, a list of all your personal medical records with the corresponding details will be

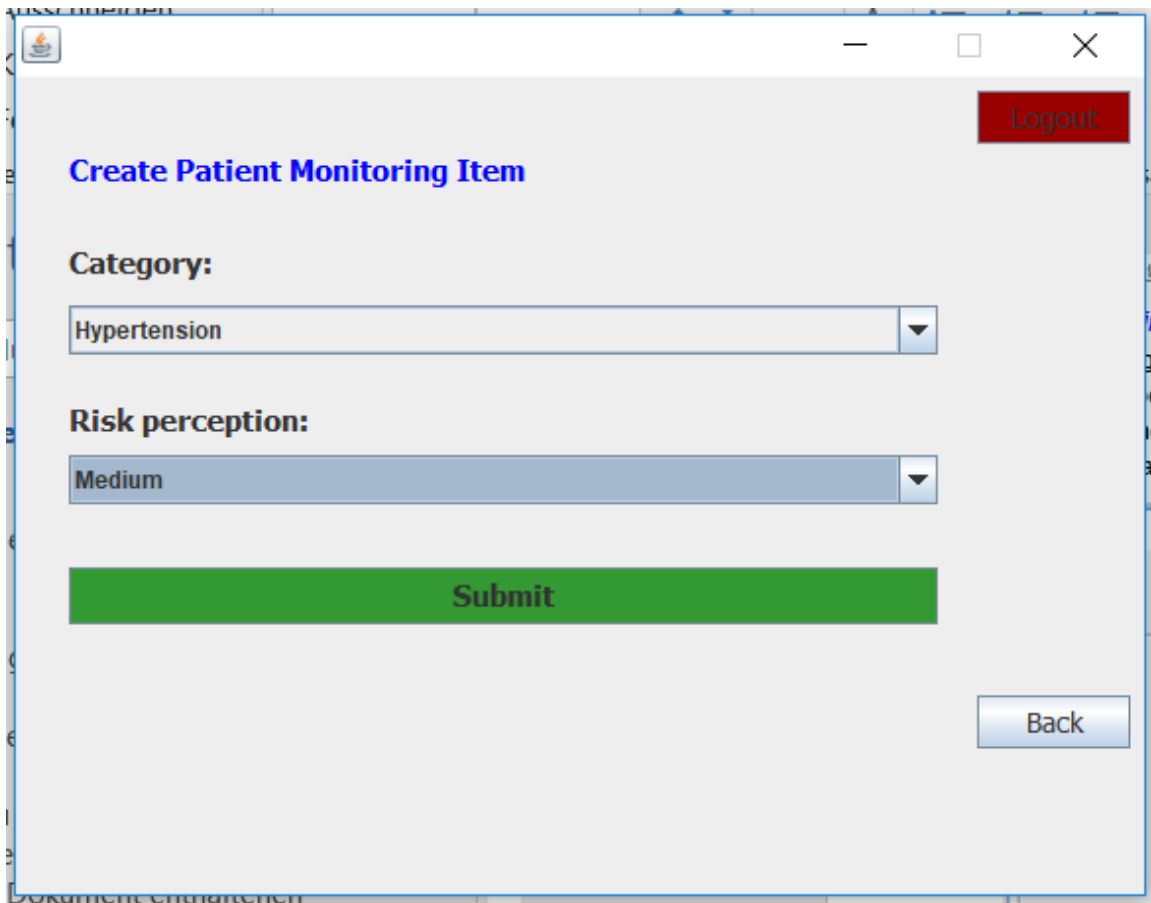
displayed. Once you are done with reviewing the information you can navigate back to the Patient main menu upon click of the button “Back”.



Patient Main Page > Create Patient Monitoring item:

If you are logged in as a Patient and you click on “Create Patient Monitoring item”. You need to select a Category and Risk Perception level to the doctors.

Then, click on “Submit”, to transmit the information. Once you are done with this, you can navigate back to the Patient main menu upon click of the button “Back”.

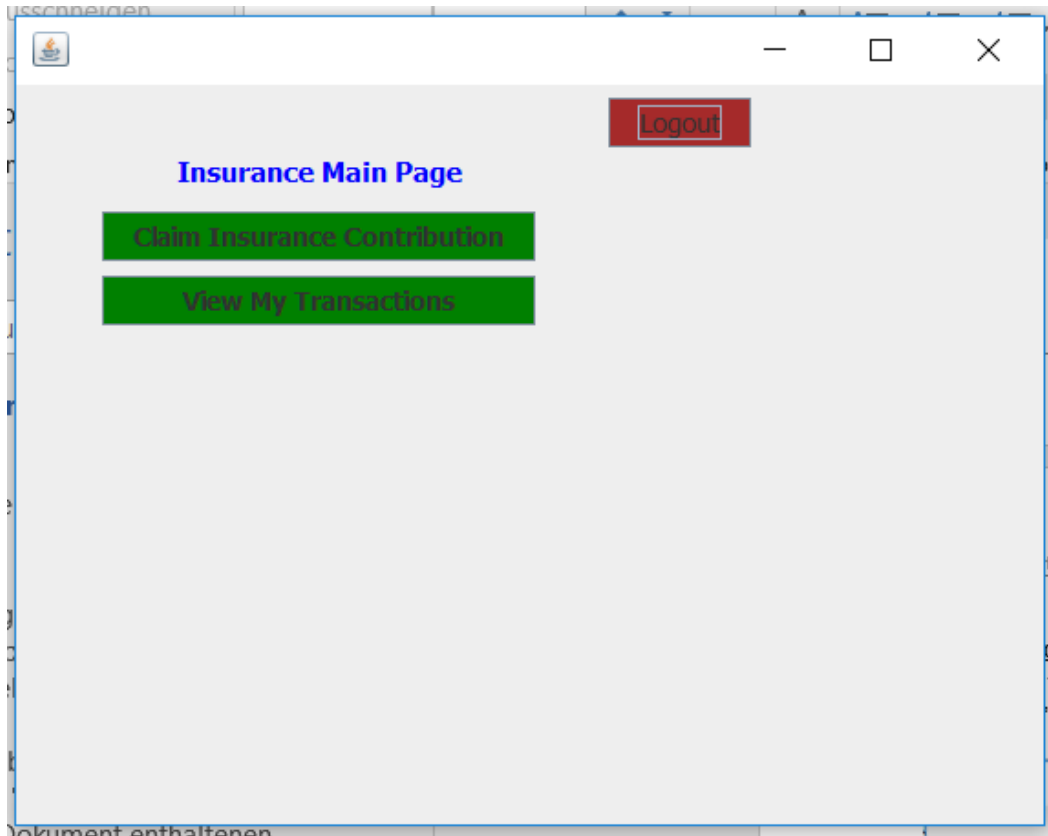


The screenshot shows a web application window with a title bar containing a logo and standard window controls (minimize, maximize, close). The main content area has a light gray background. At the top right, there is a red button labeled "Logout". Below this, the title "Create Patient Monitoring Item" is displayed in blue. The form contains two dropdown menus: "Category:" with "Hypertension" selected, and "Risk perception:" with "Medium" selected. At the bottom left, there is a large green button labeled "Submit". At the bottom right, there is a light blue button labeled "Back".

Insurance Main Page:

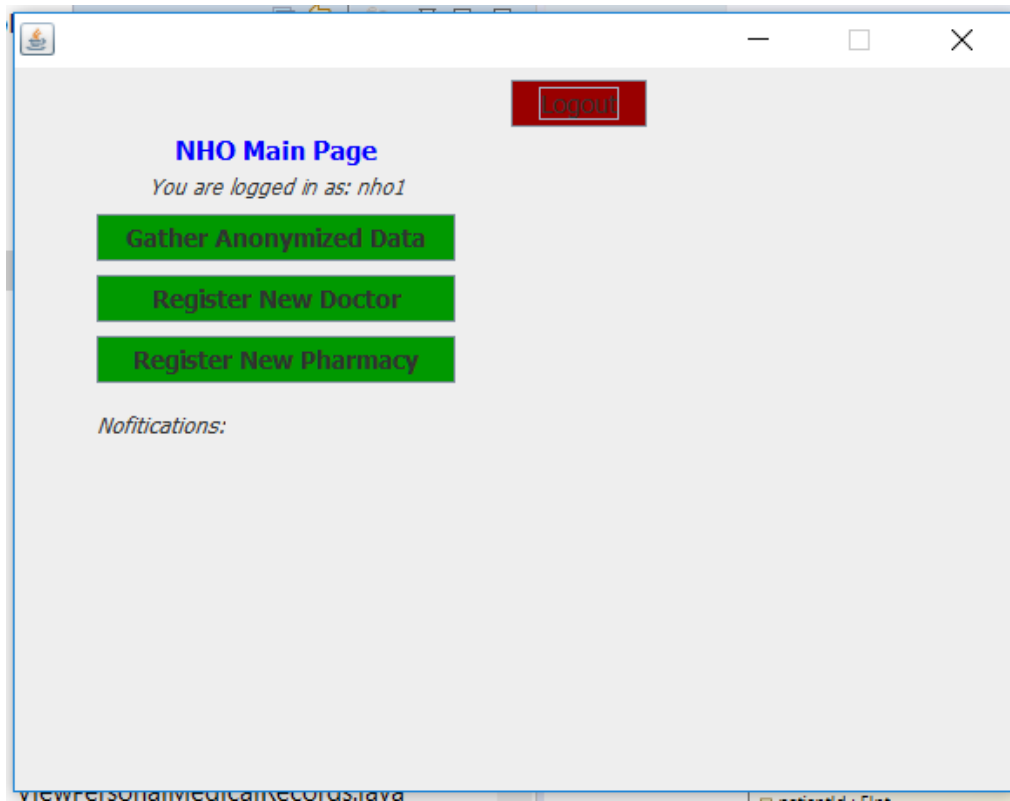
If you are logged in as an Insurance Employee, you can demand the insurance contribution form all patients. To do this, you can click on “Claim Insurance

Contribution” and you will send an Invoice to all patients to be paid. You can also select “View My Transactions” to see, which transactions have involved your account.



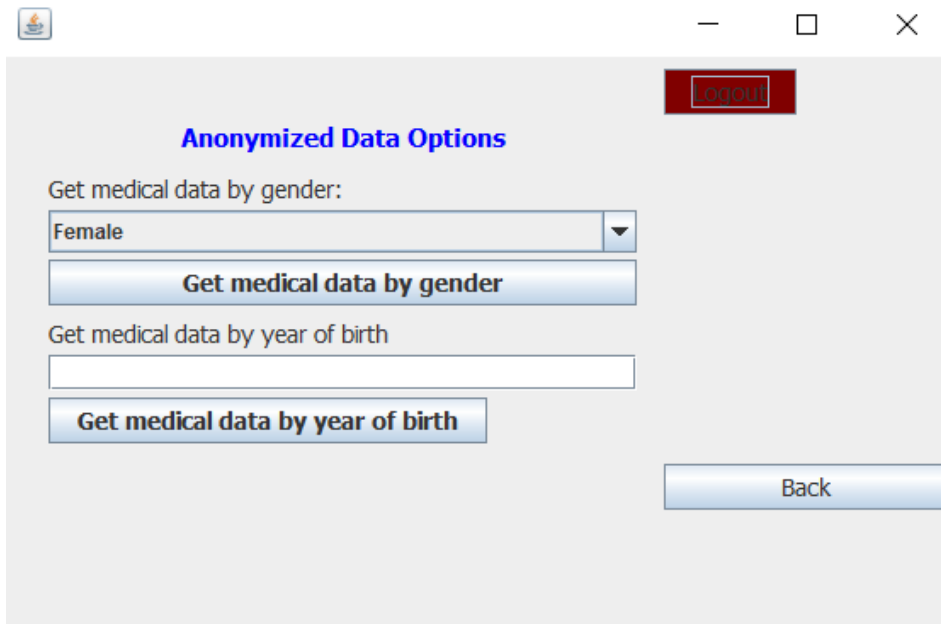
NHO Main Page:

If you are logged in as an NHO Employee, you can gather anonymized medical data either by gender or by year of birth, which can then be exported on demand. As an NHO Employee you can also register new doctors and pharmacies.



NHO Main Page > Gather Anonymized Data:

In this section of the NHO page, you can gather anonymized medical data either by gender or by year of birth, which can then be exported on demand.



Anonymized Data Options

Get medical data by gender:

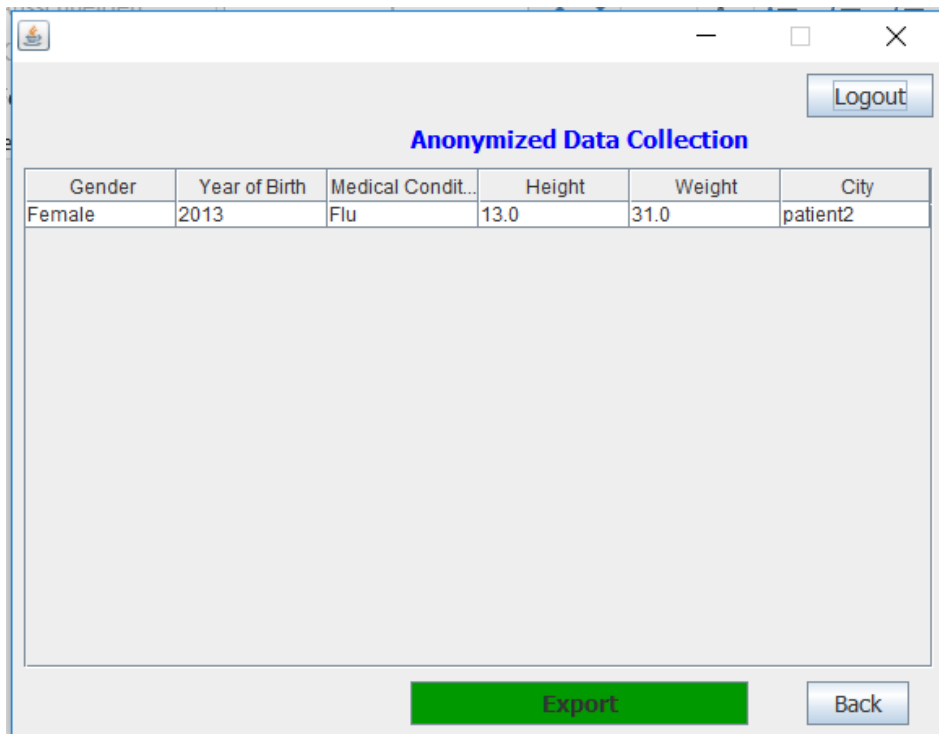
Female

Get medical data by gender

Get medical data by year of birth:

Get medical data by year of birth

Back



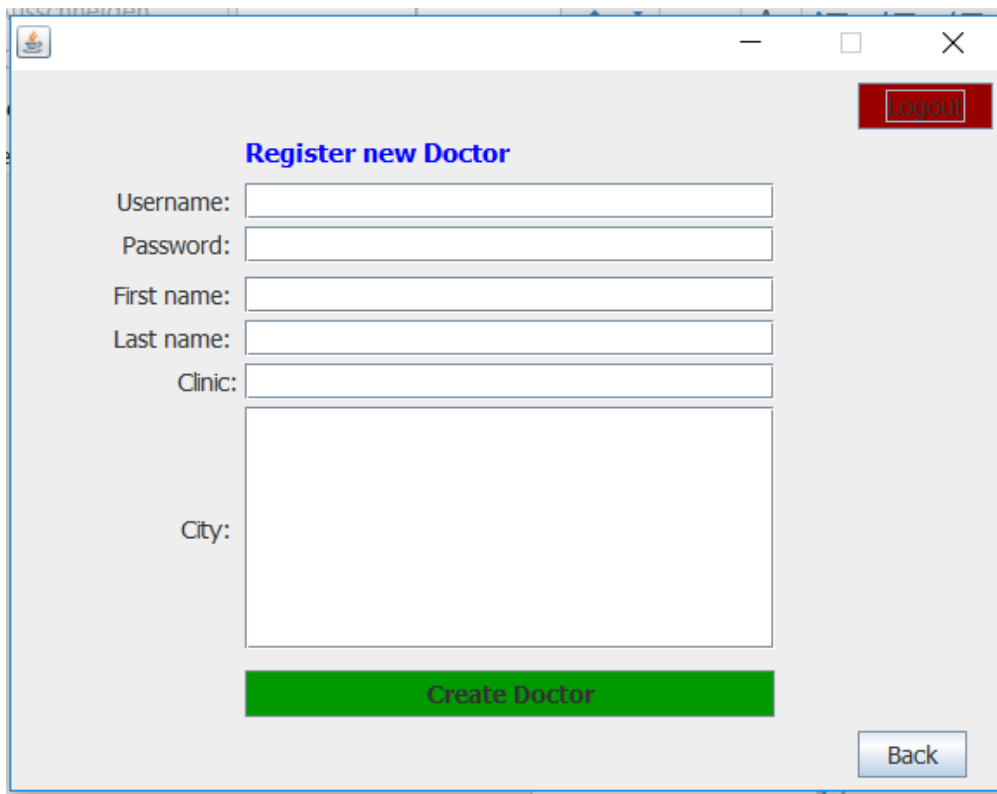
Anonymized Data Collection

Gender	Year of Birth	Medical Condit...	Height	Weight	City
Female	2013	Flu	13.0	31.0	patient2

Export **Back**

NHO Main Page > Register New Doctor:

In this section of the NHO menu, you can register a new doctor.



The screenshot shows a web browser window with a title bar. The page content is titled "Register new Doctor" in blue text. It contains several input fields: "Username:", "Password:", "First name:", "Last name:", "Clinic:", and "City:". The "City:" field is a large text area. There are two buttons: a red "Logout" button in the top right and a green "Create Doctor" button at the bottom center. A "Back" button is located in the bottom right corner.

Register new Doctor

Username:

Password:

First name:

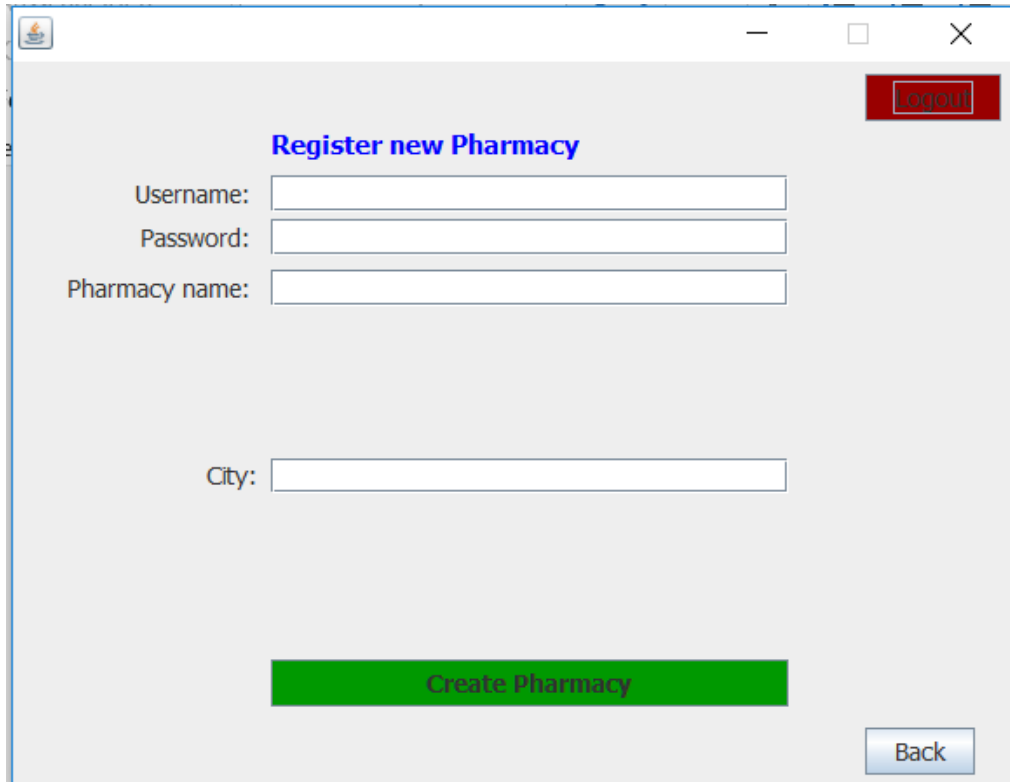
Last name:

Clinic:

City:

NHO Main Page > Register New Pharmacy:

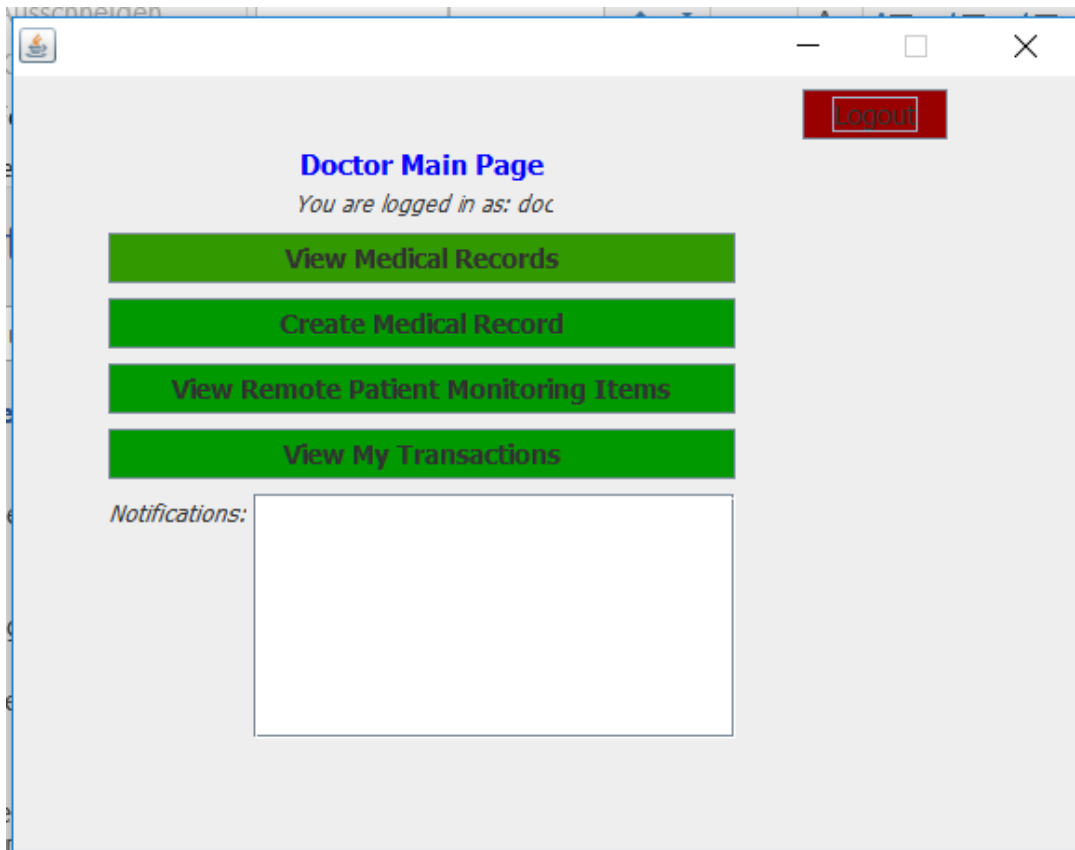
In this section of the NHO menu, you can register a new pharmacy.



The screenshot shows a web browser window with a title bar containing a small icon and standard minimize, maximize, and close buttons. The page content is on a light gray background. In the top right corner, there is a red rectangular button with the text 'Logout' in white. The main heading is 'Register new Pharmacy' in blue text. Below this, there are four input fields: 'Username:' followed by a text box, 'Password:' followed by a text box, 'Pharmacy name:' followed by a text box, and 'City:' followed by a text box. At the bottom center, there is a large green rectangular button with the text 'Create Pharmacy' in white. In the bottom right corner, there is a small blue button with the text 'Back' in white.

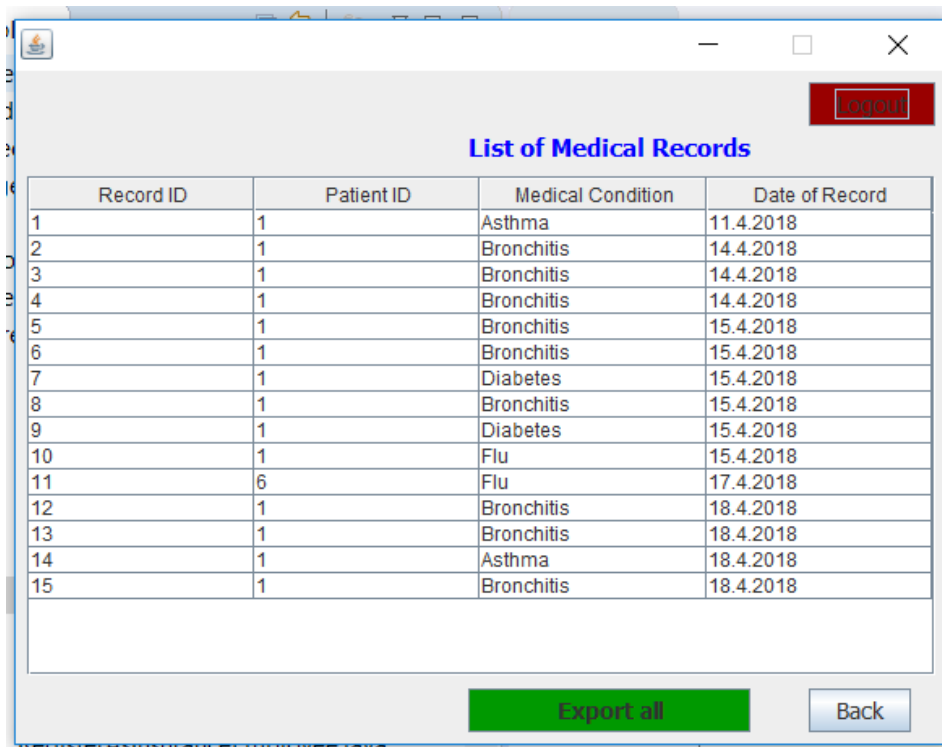
Doctor Main Page:

As a Doctor, you can view Medical Records, which are associated with your doctor ID, and you can create new Medical Records if you perform a Patient examination/treatment. You can also edit existing Medical Records to which you have access. You also have access to the list of remote patient monitoring items that were entered either by the Patients themselves or by devices linked to a particular patient ID from remote. As a reaction to a so far untreated remote patient monitoring item, you can create a Medical Record and you will gain access to the Patient data. You can also view your Transaction Account to see the Invoices, which have been settled by your clients (patients).



Doctor Main Page > View Medical Records:

By clicking on “View Medical Records”, you can display the list of medical records of your patients, and/or export/edit them.



List of Medical Records

Record ID	Patient ID	Medical Condition	Date of Record
1	1	Asthma	11.4.2018
2	1	Bronchitis	14.4.2018
3	1	Bronchitis	14.4.2018
4	1	Bronchitis	14.4.2018
5	1	Bronchitis	15.4.2018
6	1	Bronchitis	15.4.2018
7	1	Diabetes	15.4.2018
8	1	Bronchitis	15.4.2018
9	1	Diabetes	15.4.2018
10	1	Flu	15.4.2018
11	6	Flu	17.4.2018
12	1	Bronchitis	18.4.2018
13	1	Bronchitis	18.4.2018
14	1	Asthma	18.4.2018
15	1	Bronchitis	18.4.2018

Export all Back



Medical Record Details

Record ID: 11

Patient ID: 6

Doctor ID: 3

Medical Condition: Flu

Price (in EUR): 100.0

Date: 17.4.2018

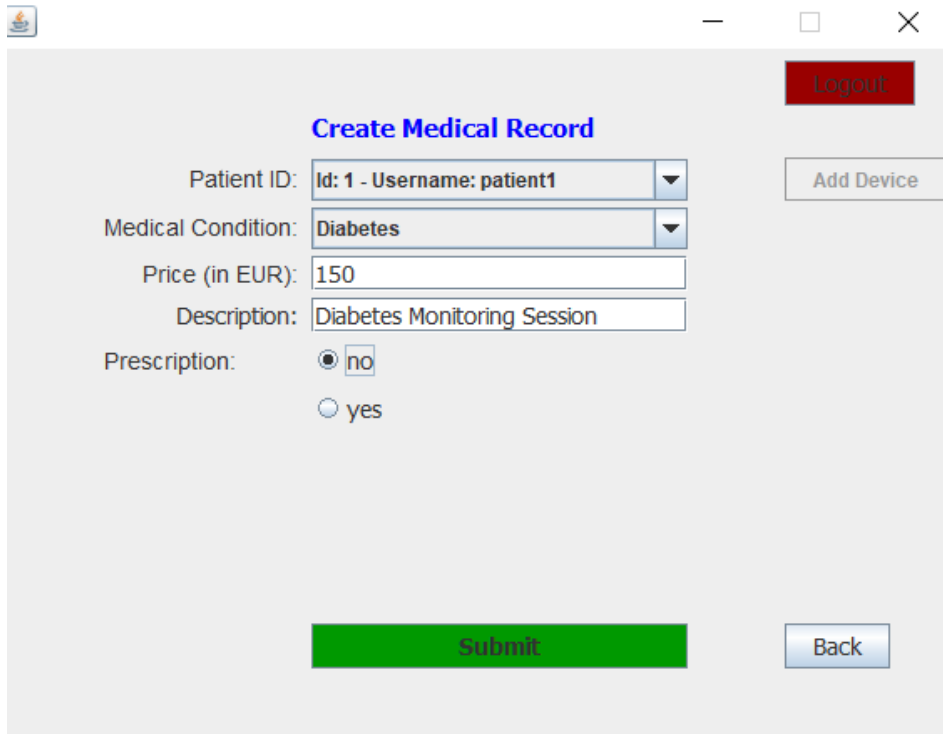
Save Change

Export

Back

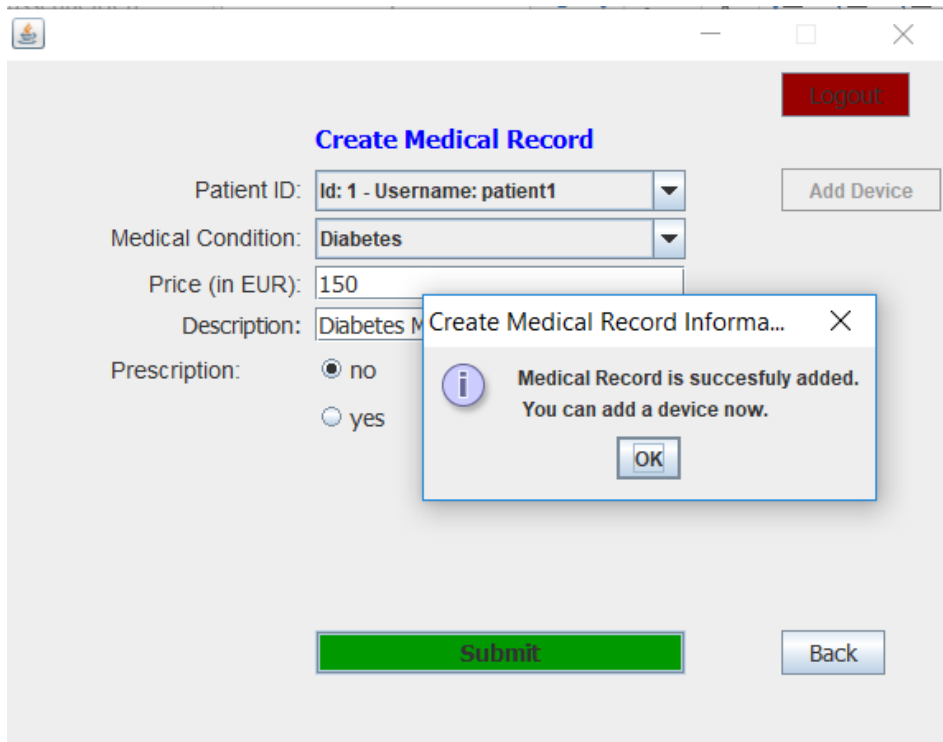
Doctor Main Page > Create Medical Record:

As a Doctor, you can create new Medical Records, if you perform a Patient examination.



The screenshot shows a web application window titled "Create Medical Record". It contains the following fields and controls:

- Patient ID:** A dropdown menu showing "Id: 1 - Username: patient1".
- Medical Condition:** A dropdown menu showing "Diabetes".
- Price (in EUR):** A text input field containing "150".
- Description:** A text input field containing "Diabetes Monitoring Session".
- Prescription:** Two radio buttons, "no" (selected) and "yes".
- Buttons:** A red "Logout" button in the top right, a grey "Add Device" button, a green "Submit" button at the bottom, and a grey "Back" button.



This screenshot shows the same "Create Medical Record" form as above, but with a modal dialog box overlaid in the center. The dialog box is titled "Create Medical Record Informa..." and contains the following text:

Medical Record is succesfully added.
You can add a device now.

There is an "OK" button at the bottom of the dialog box. The form fields and buttons in the background are partially visible behind the dialog.

Doctor Main Page > View Remote Patient Monitoring Items:

You can review the list of Remote Patient Monitoring items and if you decide to treat one of the, you can select the row, and click on “Create Medical Record for selected item” to create a Medical Record for that particular item.

Monitoring Id	Patient Id	Category	Date	Risk Percep...	Treated	Device Id
1	1	Bronchitis	15.4.2018	Medium	false	5
2	1	Diabetes	15.4.2018	Medium	false	6
3	1	Flu	15.4.2018	Medium	false	7
4	6	Flu	17.4.2018	Medium	false	8

Create Medical Record for selected item Back