



CMS Requirements Specifications

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12/05/2019

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May 12,2019

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Executive Summary

1.1 Project Overview

Technology nowadays is developing really fast and it is being implemented in almost all the areas of our lives. One of the main fields that is trying to incorporate technology, is the health field. For each patient is needed to store its personal information. When analyzed this detailed handwritten information it is a very difficult and slow to process.

Our project is a Web application for Clinic Management System. Its main functionalities include: request appointments online and keeping medical records for each patient in a digital form instead of on paper, which is the nowadays examination form, especially in our country.

The implementation of the idea will work closely with clinics by having access at their databases for patients they forward to us. Patients will require an appointments and the doctor will accept or decline based on his agenda.

Each doctor will have his/her own account where he/she can add patients, leave appointments (this is done by polyclinic's doctors), cancel them, write prescriptions, check the medical records of a patient and alter them if needed.

Also, in our system we will keep track of each doctor's timetable. Besides doctors, receptionists will have their profile, in order to manage the patients and doctors profiles.

Receptionists will inform patients and doctors for any change in the schedule for example.

The project is intended for private clinics.

1.2 Purpose and Scope of this Specification

The purpose of our project is to facilitate the way clinics work in our country. Patients will not have to save their examination documents year by year but they will have their personal information stored in their own online profile.

Also our management system aims to reduce the time of waiting by leaving an appointment online for each patient.

The patient will also be able to go to the pharmacy and get the medicines without a hand receipe.

In scope:

- Modifying the appointment reservations.
- Modifying the way patients' records are kept.

Out of scope:

- Modifying the administrative procedures of the clinic.

2. Product/Service Description**2.1 Product Context**

Our software is related with an ordinary clinic and a group of pharmacies that will be available for the patients of that clinic. It will be an independent system that will be available to 4 levels of users:

Patient, Doctor, Receptionist and Pharmacist. These 4 levels will be directly connected to each other.

2.2 User Characteristics

There are 4 types of users that will interact within our systems:

1. Patient

- Can log in his account
- Can read its personal data
- Can contact his doctor
- Can contact the receptionist
- Can check for the nearest pharmacy and the medicines that each of them offers
- Can look at all his/her visits and check ups
- Can log out

2. Doctor

- Can log in his account
- Can read its CV
- Can contact patients
- Can contact receptionist
- Can fill the form of examinations
- Can log out his account

3. Receptionist

- Can log in his account
- Can add new patient
- Can delete an existing patient
- Can contact with patient
- Can contact with doctor
- Can change personal data of patient
- Can add new doctor
- Can delete an existing doctor
- Can log out of his/her account

4. Pharmacy

- Can log in its account
- Can update their medicinal list
- Can log out

2.3 Assumptions

It is assumed that most part of the actions taken are legally allowed.

It is assumed that information added about doctors and users is already verified.

It is assumed that the profile of the receptionist is already created by an administrator.

It is assumed that when writing the examination form of the patient the only person responsible for that is the doctor.

2.4 Constraints

Our project is constrained only by the Internet connection since we have decided for it to be a Web Application.

The Internet is needed for the connection with the database and also for the Map.

2.5 Dependencies

Our system is independent.

This means there is no dependency between the users in our Web application.

3. Requirements

3.1 Functional Requirements

The requirement numbering has a scheme –BR_##(BR for Business Requirement).

The following table is a format for requirements.

Req#	Requirement	Comments	Priority	Date	SME Reviewed/Approved
BR_01	The software should have different views and different functionalities for different user logins.	Patient, Doctor, Clinic and Pharmacist should be different.	Doctor		
BR_02	A reCaptcha should be used to detect abusive traffic on our web application without any user friction.	To verify that a user is not a robot, he should fill the reCaptcha.	Valid User		
BR_03	Every user should have different usernames, passwords and valid passwords as well.	This can be achieved by hashing passwords before saving them in a database.	Password		
BR_04	The user can have the chance to edit the password.	This can be done by updating credentials in database and he can update only the password because its username is	Update		

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		changed only by receptionist.			
BR_05	The receptionist manages the doctors'/patients' profile.	The receptionst is responsible for Create,Read,Update and Write functionalities .	Database Interaction		
BR_06	The receptionist should be able to have a list of all the patients.	All patients should be listed.	Information		
BR_07	The software should be able to generate an XML file which will contain all the records for a specific patient.	The records of a patient are written on a medical cartel.	Patient records ,XML file		
BR_08	The receptionist checks which patient belongs to which doctor.Doctor checks which pharmacist is connected with him.	The doctor has the permission to create a medical visit record and make it visible for its patient as well.	Visit record		
BR_09	A patient can not edit its records .	The profile of a patient is on a read view.	Patient's profile		
BR_10	Each user can look the general webpage and information of the clinic	General information is accessible from all users.	Users		
BR_11	A patient belongs to only one doctor ,he is not able to choose another doctor.	A patient has only to do with his family's doctor.	Doctor-Patient		
BR_12	The doctor can see all the records of a current patient .	He may need to analyze his previous examinations.	Medical cartel visible to doctor		
BR_13	The doctor can see the records of each client.	If the system is not working he may be able to edit the medical visit later.			

3.2 Non-Functional requirements

3.2.1 User Interface Requirements

The user interface should be grouped in 5 main interfaces .

- Log In interface
 1. Enter your Mainframe User Id in the field labeled 'User'.
 2. Enter your Mainframe Password in the field labeled 'Password'.
 3. If you want to change your password, you should click inside the radio button located below these fields.
 4. Click the Submit Button or the reCaptcha to protect the user.

The diagram illustrates the Log In interface layout. At the top is a blue rectangular box labeled "Name of the clinic". Below this, there are two input fields: "UserID:" followed by a blue rectangular box, and "Password:" followed by a blue rectangular box. Under the password field, there are two oval buttons: "Submit" and "reCaptcha". At the bottom of the interface is a blue rectangular button labeled "Change password?".

If your password has expired you will not be able to continue. The Change Password page appears automatically and you are given the opportunity to enter a new password. The message below appears on the Change Password page when your password has expired:

Steps to Change your password:

1. Enter your current Mainframe Password in the field labeled 'Old Password'.
2. Enter your New Mainframe Password in the field labeled 'New Password'.
3. Re-enter Your New Mainframe Password in the field labeled 'Repeat New Password'.
4. If the 'User ID' field appears, be sure to enter your mainframe user id. The 'User ID' field will appear if you have selected to change your password, but will not appear if you are changing an expired password.
5. Click the Submit Button.

User ID:

Old Password

New Password

Repeat new password

- **Patient's interface**

1. The header bar containing CMS logo,"Patient <Name><Surname> and a Menu Icon ☰,which when pressed shows all available menus.
2. The menu Icon showing all the menus the user can access after logging in as a patient: Profile,Records,Contact Doctor ,Log Out.
3. The "**Profile**"Menu will allow the user to see all his personal information saved in database.
4. The "**Records**"Menu will show to the user medical visits and medical cartel created by the doctor.
5. The "**Contact Doctor**"Menu will all allow the user to chat with the doctor.
6. The "**Log Out**"will return the user to home page.

- **Doctor Interface**

1. The header bar containing CMS logo,"Doctor<Name> <Surname>" and a Menu Icon ☰,which when pressed shows all available menus.
2. The Menu Icon showing all the menus the user can access after logging in as a doctor: Profile,Examinations, Doctor's List,Add a Doctor,Search a Doctor,Log Out,Agenda.
3. The "**Profile**"Menu will allow the user to see all his personal information saved in database.
4. The "**Contact Doctor**"Menu will all allow the user to chat with the doctor.
5. The "Examinations "Menu will show a list of the examinations of the current patient.This will be in a tabular form and when the examination is over the doctor presses the button'End of Examination'.The doctor can edit the patient information.
6. The"**Patient's List**"Menu where the clinic could see a full list of the patients with their medical visit.
7. The "**Add a Patient**"Menu allows the clinic to create a new user ,type patient.
8. The "**Search a Patient**"allows the clinic to search for a specific patient.
9. The "**Log Out**"will return the user to home page.
10. The"**Agenda**"will contain the calendar of a doctor.

- **Clinic Interface**

1. The header bar containing CMS logo,"Clinic<Name> and a Menu Icon ≡,which when pressed shows all available menus.
2. The Menu Icon showing all the menus the user can access after logging in as a doctor: Profile,Doctor's List,Add a Doctor,Search a Doctor,Create a Visit,Log Out.
3. The "**Profile**"Menu will allow the user to see all his personal information saved in database.
4. The"**Doctor's List**"Menu where the clinic could see a full list of the doctors with their CV included.
5. The "**Add a Doctor**"Menu allows the clinic to create a new user ,type Doctor.
6. The "**Search a Doctor**"allows the clinic to search for a specific doctor.
7. The "**Create a Visit**"Menu will see the doctor's agenda and will reserve an appointment.
8. The "**Log Out**"will return the user to home page.

- **Pharmacist Interface**

1. The header bar containing CMS logo,"Clinic<Name> and a Menu Icon ≡,which when pressed shows all available menus.
2. The Menu Icon showing all the menus the user can access after logging in as a doctor: Profile,The Drug Recipe,Log Out.
3. The "**Profile**"Menu will allow the user to see all his personal information saved in database.
4. The "**Drug Recipe**"Menu will allow the pharmacist to see the recipe of the current patient uploaded by the doctor.
5. The "**Log Out**"will return the user to home page.

3.2.2 Usability

Learnability

- Doctors and Clinic should be able to know how to use all the functions the software offers .
- Patients will have it easy to use because it resembles other web applications (log in),which is known world wide how to be used.

Efficiency

- Each operation will be executed in a real time.

Memorability

- The system is intuitive hence, it is not a problem if you 'vaguely remember' how to use it.
- If the user returns the application after some time. He able to understand on that page where he left or he may start again.

Errors

- How many errors user can face and how easily the server gets recover that errors that also impact on the users to the application.

Satisfaction

- How much user satisfied with using our application.

3.2.3 Performance

3.2.3.1 Capacity

A straightforward count of the number of requests from doctor, patient and the clinic at the same time ,that the application can process within a defined time interval. How quickly the system acknowledges a request as opposed to processing it. A database that is sufficiently robust to handle the application. Typically, a good application's database requires hardware three to four times more powerful than the application server hardware. It is good practice to use a separate machine for your database server.

3.2.3.2 Availability

The application will be available 24 hours per day ,every day.

The drug recipes should be available on the system when the patient is at pharmacy.

The medical visits should be visible at the time when the patient reserves an appointment to the doctor .

3.2.3.3 Latency

No latency.

3.2.4 Manageability/Maintainability

3.2.4.1 Monitoring

The system will be secured and reliable.

All the users can access the system 24/7 ,by monitoring the login form interactions for availability and performance. The system will have it easier to detect the problem .

3.2.4.2 Maintenance

The database will be build using MySQL and the server to execute it is APACHE.

If any problem occurs, the system should use a backup data in order not to allow any information to be lost .This is done by logs and text files .

3.2.4.3 Operations

- The application will be available to the user 24/7.
- The busiest time frames are 7 AM to 9 AM and from 4 PM to 8 PM ,even though these time frames may change according to different days.
- The information entered to the system shall be accessed only by the people who are previously registered to the system.
- Create ,Read,Update and Delete users.
- Create ,Read,Update and Delete examinations .
- Create periodic reports .
- Create drug recipe.
- Create periodic medical visit.
- Update periodic agenda .

3.2.6 Security

3.2.6.1 Protection

To protect the system from malicious or accidental access, modification, disclosure ,destruction, or misuse we will take the following precautions.

- Encrypt the most sensitive information such as passwords using hashing method to protect privacy .

- We will keep track of the activity of each user, such that in case of error the user will be held responsible .
- The clinic is responsible for the personal data authenticity of the doctor he/she enters, hence the system is not responsible.
- The system will validate passwords, and each data for special characters and other specific conditions before inserting in the database.
- Each patient will see only the information related to him/her ..
- Each doctor will only see the data of every patient.

3.2.6.2 Authorization and Authentication factors:

- The Authorization and Authentication factors .
- The user authentication will be using username password and reCaptcha.
- Authorization will be based on the user type Each user will access only their information
- Using sessions for the currently logged user
- Using Cookies and PubCookie tool.

3.2.8 Standards Compliance

This project aims, after an overview of the health care system and welfare Albanian to examine, based on the current organizational structure of the same, what can be the possible improvements could be implemented in this area of fundamental importance to the national health department such as medical records being on paper and people waiting in long lines, we came up with the idea of creating a Web-based Application to digitalize the way the public hospitals in our country work.

Our project will be based on these main points:

- Leaving appointments online
- Keeping medical records of each patient in digital form
- Keeping records of emergency entries and hospitalizations
- Showing medical personnel timetables
- Agenda of each Doctor
- Drug Recipe

3.2.9 Portability

- The system will be web-based ;it will operate the same regardless of the operating system.
- The system will be programmed by using HTML,JavaScript ,CSS and PHP.

4. User Scenarios/Use Cases

4.1 User Scenarios (General)

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Use Case Nr.	User Story Name	Description
1	Receptionist logs in	Using ID and password to access the system, receptionist logs in.
2	Views Doctors, Patients, and Pharmacist.	Can view doctors agenda and profile ,patients profile and pharmacies profile as well.
3	Edits each type of user.	Receptionist can edit and update personal information about doctors, patients and pharmacies.
4	Removes/Deletes each type of user	Receptionist can remove each type of user from the system/database.
5	Adds new user	Receptionist is the only user that can add a new user (doctor, patient).
6	Sets the agenda	Receptionist is the only user that sets the agenda for doctors.
7	Searches doctors, nurses and receptionists	Receptionist can search by ID, name, surname each doctor or patient and by ID or name the Pharmacy.
8	Receptionist imports/exports Data	Receptionist imports or exports data from clinic's database.
9	Receptionist signs out.	Receptionist signs out from the system

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10	Specialist doctor signs in	Specialist doctor provides username and password and signs in.
11	Specialist doctor finishes appointment	Specialist doctor fills a form on how the visit went and this is added to the patient's medical records.
12	Specialist doctor checks patient records	Specialist doctor sees all the patients records including all his visits, analysis, prescriptions etc.
13	Specialist doctor checks patient progress	Specialist doctor sees all the patients' progress since he was hospitalized based on what the receptionist has written
14	Specialist doctor searches for a patient	Specialist doctor searches by ID, name or surname a patient
15	Specialist doctor edits his own profile.	Specialist doctor edits his basic information on his profile page

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16	Specialist doctor signs out	Specialist doctor signs out of the system
17	Patients logs in.	Patient provides username and password and signs in.
18	Patient contacts doctor	Patient can contact the doctor by chating .
19	Patient can edit his profile.	Patient can change his information.
20	Patient can change his password.	Patient can edit the password to the system/database.

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21	Patient can see his records .	Patient has the access to see all his medical records .
22	Patient logs out .	Patient signs out of the system .
23	Pharmacy logs in .	Pharmacy logs in to the system .
24	Pharmacy can manage its profile.	Pharmacy can change name,surname and password of its pharmacist .
25	Pharmacy can add new user.	Pharmacy can add new Pharmacist.

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26	Pharmacy can delete a user.	Pharmacy can delete a Pharmacist.
27	Pharmacy can communicate with the doctor.	Pharmacy communicates with the doctor via email.
28	Pharmacy can see the patient's drug recipe.	Patients views the drug recipe ,which is sent by the doctor .
29	Pharmacy logs out.	Pharmacy logs out of the system.

4.2 User Scenarios (Detailed)

Scenario 1 → Receptionist signs in

- Receptionist enters username
- Receptionist enters password
- If username and password match, user is signed in
- Else user must re-enter them

Scenario 2 → Receptionist signs out

- Provided the receptionist is signed in
- Receptionist is signed out of the system

Scenario 3 → Receptionist changes password

- User enter new password
- User retypes new password

Scenario 4 → Receptionist edits and views profile

- Receptionist can view his/her profile
- Receptionist can edit, change and update his/her profile

Scenario 5 → Receptionist views/edits/deletes Doctors, Patients

- Provided that the user (Doctor, Patient) is signed in
- Views information about the profile of each patient and doctor
- Views information about the patient's medical record

Scenario 6 → Receptionist adds new user (Doctor, Patient)

- Admin enters data in the form: ID , Name ,Surname.
- If data is entered accordingly and correctly then the user is created in the system and added to the database as well
- Else data must be re-entered once again from the beginning

Scenario 7 → Receptionist sets the agenda

- Receptionist chooses the user to set his/her agenda
- Receptionist selects the shift for all the days of that week
- Receptionist selects the day for the duty call of that specific user

Scenario 8 → Receptionist views monthly reports

- Receptionist can view the auto-generated reports for the number of hospitalizations, appointments and emergency cases of specific wards for that month
- Receptionist can also download the medical records of each patient as PDF file

Scenario 9 → Receptionist searches Doctors, Patients

- Receptionist can search for users by ID, name, surname
- Information related to that ID, name, surname, or ward is shown, provided that the entered word exists anywhere in the database except for the patient's data

Scenario 10 → Specialist doctor finishes appointment

- User has appointment with patient
- User finishes appointment
- User fills the form with the information on how the appointment went
- User saves appointment notes, which are added to patient records

Scenario 11 → Specialist doctor cancels appointment

- User cancels appointment
- Doctor chats with the patient he organized the appointment and cancels it.

Scenario 12→ Specialist doctor checks patient records

- User opens patient records received from Clinic database
- User reads patient records

Scenario 13 → Specialist doctor searches for a patient

- User writes ID, name, surname of patient that he is searching for in the search input field
- User is shown a list of all entries that contain his search keyword

Scenario 14→Patient contacts Doctor.

- Patient creates a chat account and communicates with the doctor for each problem he/she has.
- Patient can delete the message he maybe has sent accidentally.
- Patient can record his voice ,if he has no time to write .
- Patient can sent photos to the doctor .

Scenario 15 →Patient can have access of his medical records

- Patient can see his medical progress.
- Patient can change his doctor ,so the other doctor can see his new patient progress and he knows what diagnosis should define to him .

Scenario 16 → Patient can edit his information

- Patient can change his/her username .
- Patient can change his/her surname if he/she has been married and has changed surname.
- Patient can change the password .

Scenario 17.1 →Pharmacy can enter new user.

- Pharmacy can enter the information of a new employed Pharmacist into the database.
- If data is entered accordingly and correctly then the user is created in the system and added to the database as well
- Else data must be re-entered once again from the beginning

Scenario 17.2 →Pharmacy can delete a user.

- Pharmacist can delete a pharmacist from the database.
- Pharmacist informs the receptionist via email when a pharmacist has been removed from the system .

Scenario 17.3 → Pharmacy can access each pharmacists profile .

Scenario 18→ Pharmacy communicates with the Doctor

- Pharmacy can receive emails from Doctor ,where the content is the patient's drug recipe .
- All the pharmacists that are employed to the Pharmacy have the same email .
- Pharmacy checks for the drugs that are written in recipe and inform the doctor if any of them is missing.
- If a drug is not found in pharmacy than the doctor can make the patient to wait, until all the medicines are ready(medicines should be ready within a day) .

4.3 Use Cases**Use Case 1**

Name	Sign In
Summary	User enters the system by providing genuine credentials
Actor	Receptionist, Doctor, Pharmacy, Patient
Description	User provides username and password
Precondition	User must have an existing account
Alternatives	The same user can sign in only once at a time
Post condition	User enters the system

Use Case 2

Name	View Staff
Summary	Receptionist views Doctors, Patients, Pharmacies
Actor	Receptionist
Description	Receptionist can view each doctor and patient
Precondition	Receptionist is signed in
Alternatives	
Post condition	Staff information is displayed

Use Case 3

Name	Edit users
Summary	Receptionist
Actor	Receptionist edits each type of user
Description	Receptionist edits and changes profile information of the users and if data is entered according to validation rules then changes are saved
Precondition	Receptionist is signed in
Alternatives	
Post condition	Changes that have been made are updated in the database

Use Case 4

Name	Delete users
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Summary	Receptionist deletes each type of user
Actor	Receptionist
Description	Receptionist clicks on “Delete” button located beside each type of user and after that is asked whether being sure about the deletion of that user; when clicking “Yes” that user is deleted from the database, else user isn’t removed
Precondition	Receptionist is signed in and that specific user exists
Alternatives	
Post condition	Deleted user doesn’t exist anymore

Use Case 5

Name	Add new user
Summary	Receptionist adds new user
Actor	Receptionist
Description	Receptionist after clicking on “Add new user” button selects a type of user and accordingly fills in the form of that specific user. If data is entered correctly then when “Add” button is clicked the user is created in the system and added to the database as well
Precondition	Receptionist is signed in and that user doesn’t exist
Alternatives	No two users with the same username and ID should exist
Post condition	New user is created

Use Case 6

Name	Set the timetable
Summary	Receptionist sets the timetable
Actor	Receptionist
Description	Receptionist selects a user: if doctor assigns a shift number for each day of the week, if patient changes idea
Precondition	Receptionist is signed in
Alternatives	
Post condition	The timetable is set

Use Case 7

Name	Search Staff
Summary	Receptionist searches Doctors, Patients and Pharmacies
Actor	Receptionist
Description	Receptionist enters username/name /surname/ward at the search field. When clicking on “Search” button information related to that ID, username,name, surname, or ward is shown, provided that the entered word exists anywhere in the database except for the patient’s data

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Precondition	Receptionist is signed in
Alternatives	
Post condition	Information on the searched term/words is displayed

Use Case 8

Name	Import/Export data
Summary	Receptionist imports/exports data
Actor	Receptionist
Description	Receptionist imports or exports data from clinic's database
Precondition	Receptionist is logged in and is allowed to access the database
Alternatives	
Post condition	Data is always archived on database.

Use Case 9

Name	Sign Out
Summary	Receptionist can log out of his profile
Actor	Receptionist
Description	Clicks log out button
Precondition	Receptionist must have an existing account
Alternatives	Can sign out anytime
Post condition	Goes to main login page after logging out

Use Case 10

Name	Finish appointment
Summary	Doctor must keep record of finished appointment
Actor	Doctor
Description	Doctor fills a form with information on how the visit went
Precondition	An appointment must be made
Alternatives	
Post condition	Appointment information must be added to previous patient records

Use Case 11

Name	Cancel appointment
Summary	Doctor can cancel appointment
Actor	Doctor
Description	Doctor selects the user and cancels appointment
Precondition	An appointment must have been made before
Alternatives	
Post condition	

Use Case 12

Name	Check patient record
Summary	Doctor can look at patient records
Actor	Doctor
Description	Doctor can see all the patients records including all his visits, analysis, prescriptions etc.
Precondition	Patient must have records saved in the database
Alternatives	Doctor must have access to the patient's records, patient must be under the care of this doctor
Post condition	

Use Case 13

Name	Check patient progress
Summary	Doctor can look at the progress of a patient
Actor	Doctor
Description	Doctor can see all the patients' progress since he had his first examination based on what the receptionist has written on his profile.
Precondition	
Alternatives	Doctor must have access to the patient's records, patient must be under the care of this doctor
Post condition	

Use Case 14

Name	Search patient
Summary	Doctor searched for the data of a patient
Actor	Doctor
Description	Doctor can search for a patient only through his ID,username, name and surname
Precondition	Patient must be part of our system
Alternatives	Patient must be in the care of this doctor in order to appear in the search results
Post condition	The searched patient is shown if exists

Use Case 15

Name	Edit own profile
Summary	Doctor can edit his own profile
Actor	Specialist Doctor
Description	Doctor has the power to make changes to his profile information and also change password

CMS Documentation

Precondition	Doctor must have an account and profile in our system
Alternatives	The receptionist changes user profile
Post condition	Profile is changed

Use Case 16

Name	Sign Out
Summary	Doctor can log out of his profile
Actor	Doctor
Description	Clicks log out button
Precondition	Doctor must have an existing account
Alternatives	Can sign out anytime
Post condition	Goes to main login page after logging out

Use Case 17

Name	Contact doctor
Summary	Doctor can log out of his profile
Actor	Patient,Doctor
Description	Patient can contact doctor by chat provided by our system.
Precondition	Patient must be in the care of that doctor
Alternatives	
Post condition	Each one receives message on time

Use Case 18

Name	Patient signs in
Summary	Patient can sign in his profile
Actor	Patient
Description	Patient can sign in his profile by providing his personal username and password
Precondition	Must have an existing profile and username+password
Alternatives	
Post condition	Check his profile

Use Case 19

Name	Patient edits his profile
Summary	Patient can make changes on his profile
Actor	Patient
Description	Patient can sign in his profile and make changes on his personal information
Precondition	Must have an existing profile and be allowed by the system to make changes
Alternatives	
Post condition	

Use Case 20

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Name	Patient has access of his medical records
Summary	Patient can see his medical records
Actor	Patient
Description	Patient can sign in his profile and see all the medical records and progress
Precondition	Must have an existing profile
Alternatives	
Post condtion	

Use Case 21

Name	Pharmacy enters new user
Summary	Pharmacy can enter a new employee
Actor	Pharmacy
Description	Pharmacy can add a new user as a new employee
Precondition	Data must be entered correctly
Alternatives	
Post condtion	New profile is created

Use Case 22

Name	Pharmacy deletes a user
Summary	Pharmacy can delete a user
Actor	Pharmacy
Description	Pharmacy can delete the profile of a user if a worker leaves the work position
Precondition	Profile must exist first
Alternatives	
Post condtion	Data is deleted even from database

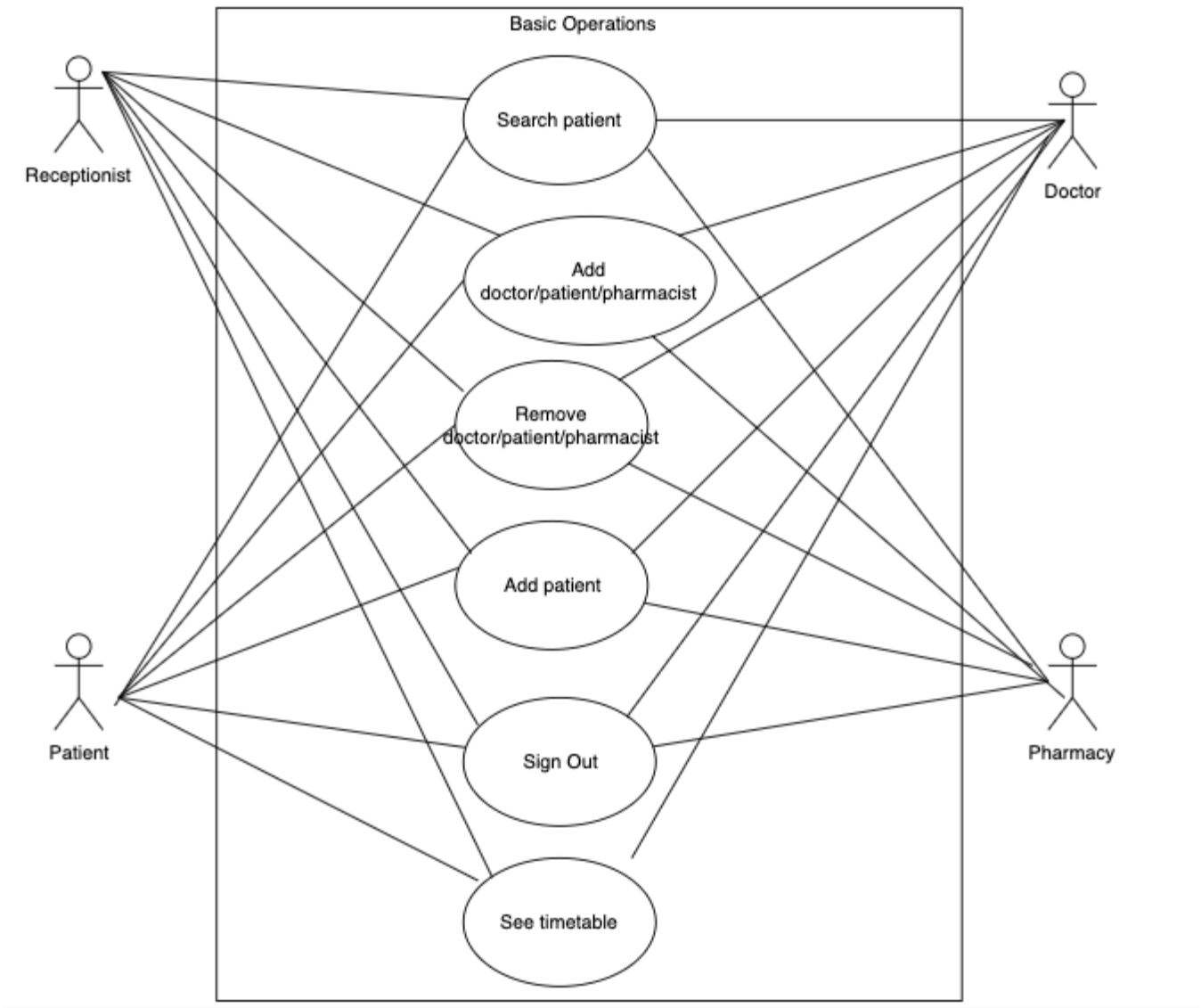
Use Case 23

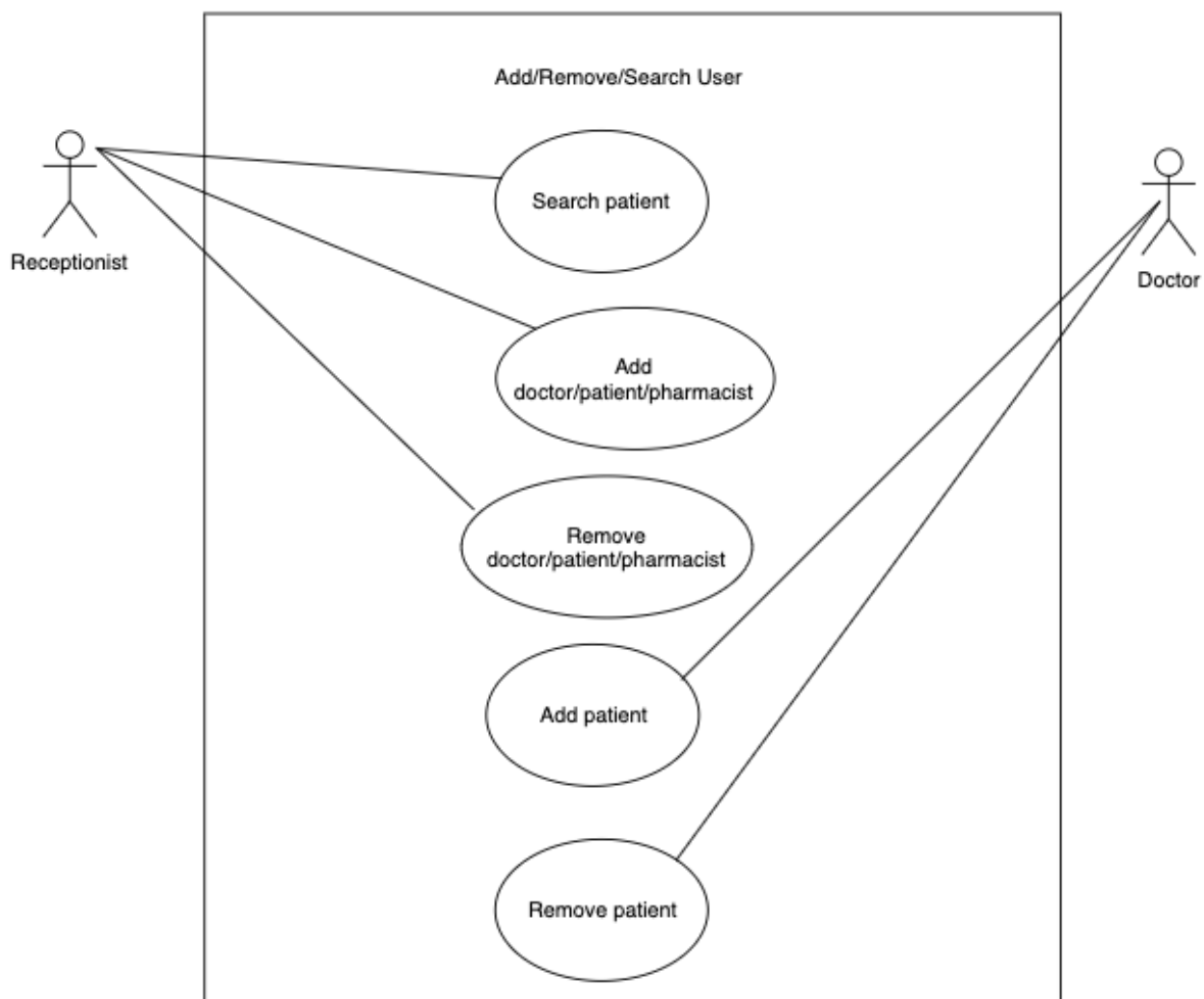
Name	Pharmacy communicates with the doctor
Summary	Pharmacy communicates with doctor via email
Actor	Pharmacy, Doctor
Description	Pharmacy can send to and receive email from doctors
Precondition	Both profiles must exist
Alternatives	
Post condtion	

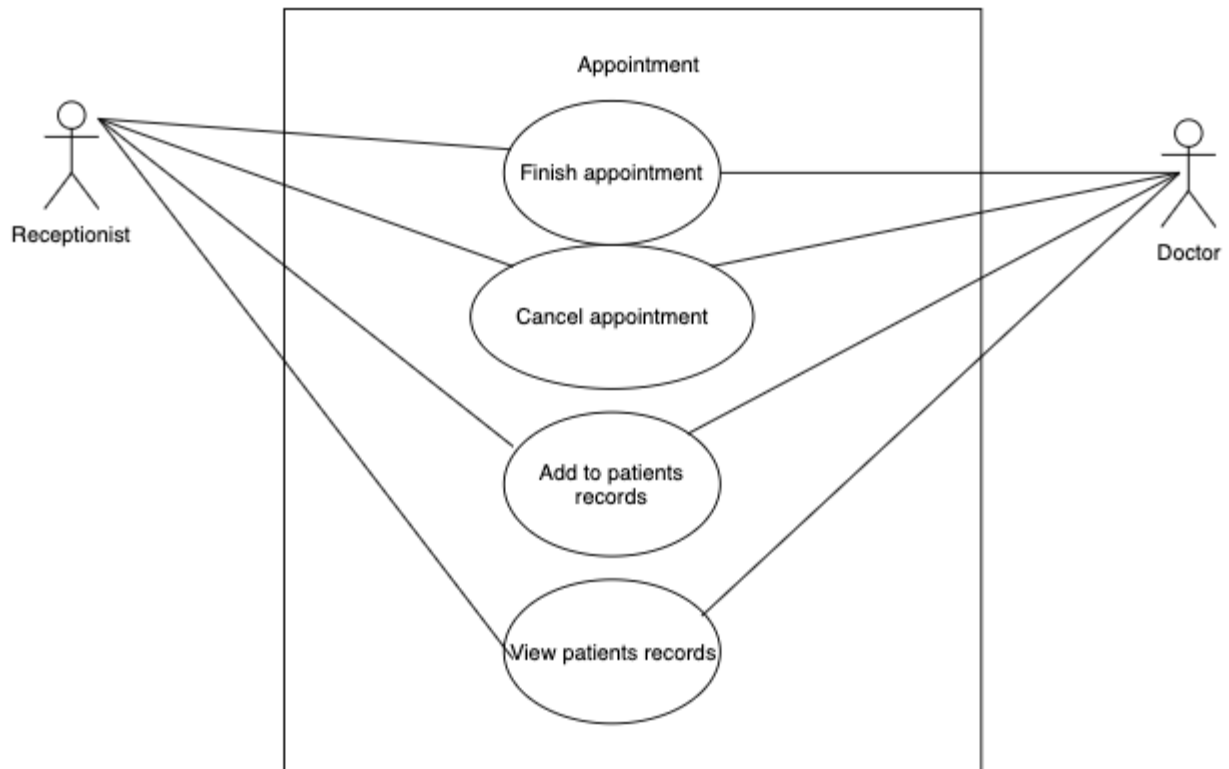
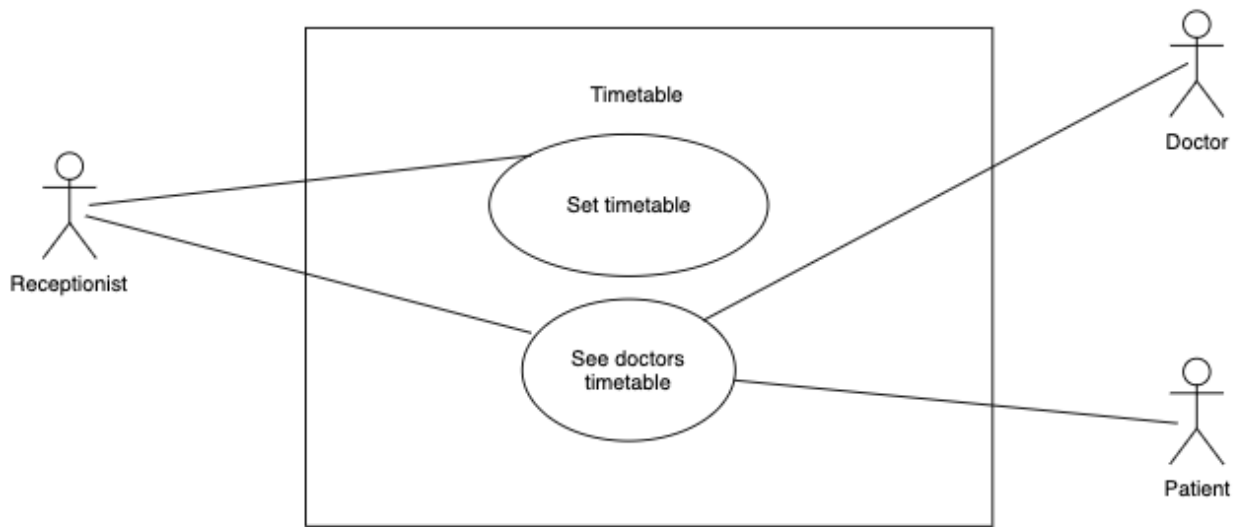
Use Case 24

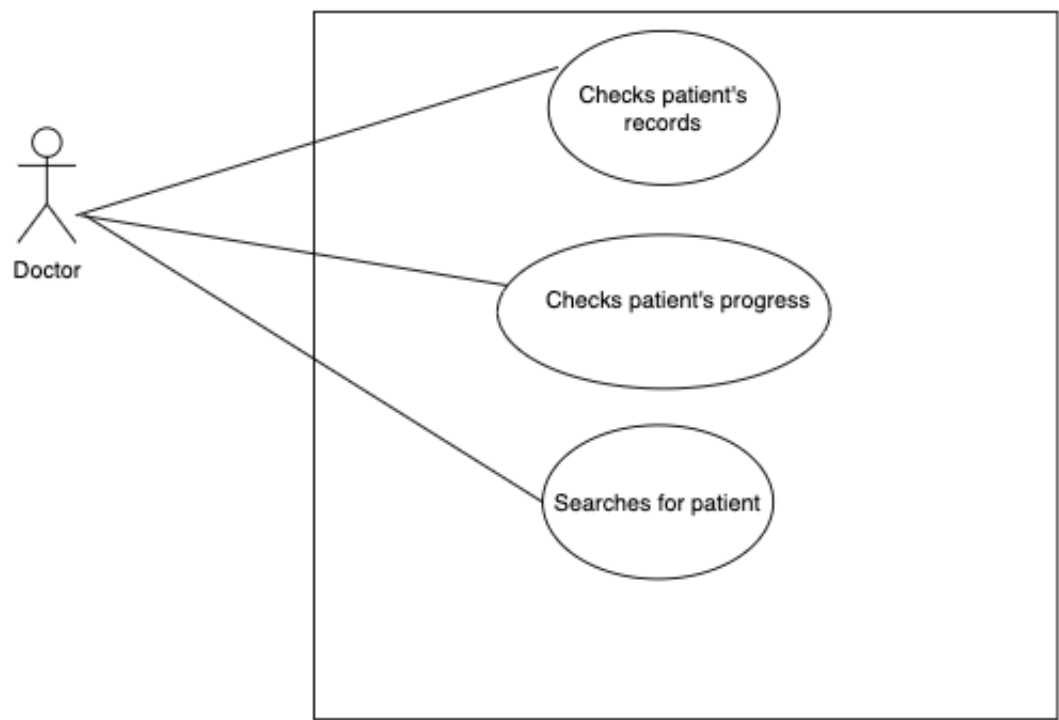
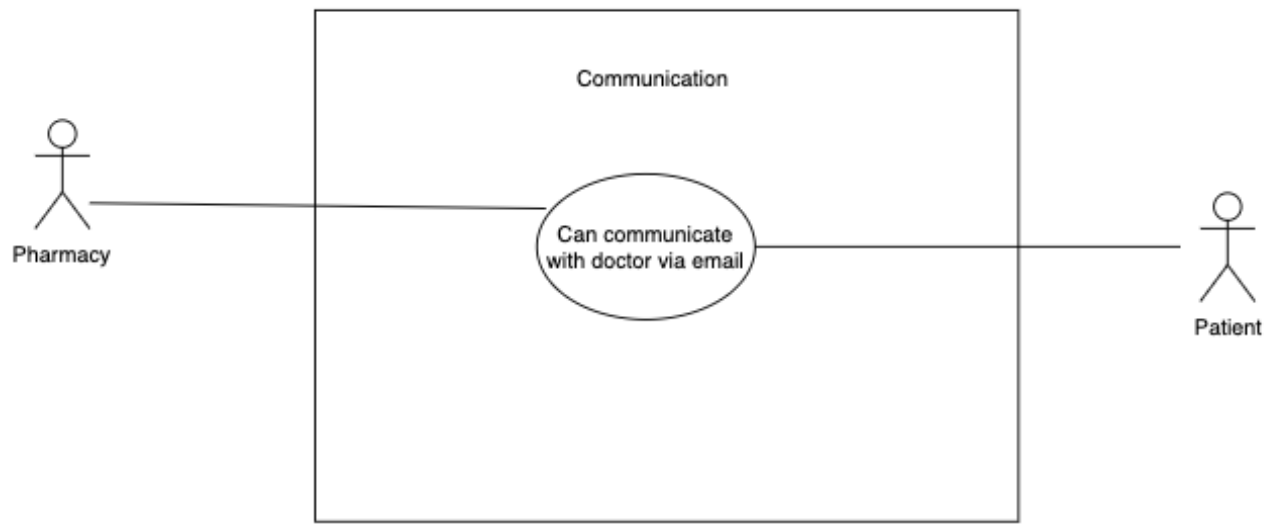
Name	Receptionist generates report(daily/monthly)
Summary	Receptionist generates a report as asked from doctors or managers
Actor	Receptionist
Description	Receptionist is asked to generate reports.
Precondition	
Alternatives	
Post condtion	

4.4 User Case Diagram





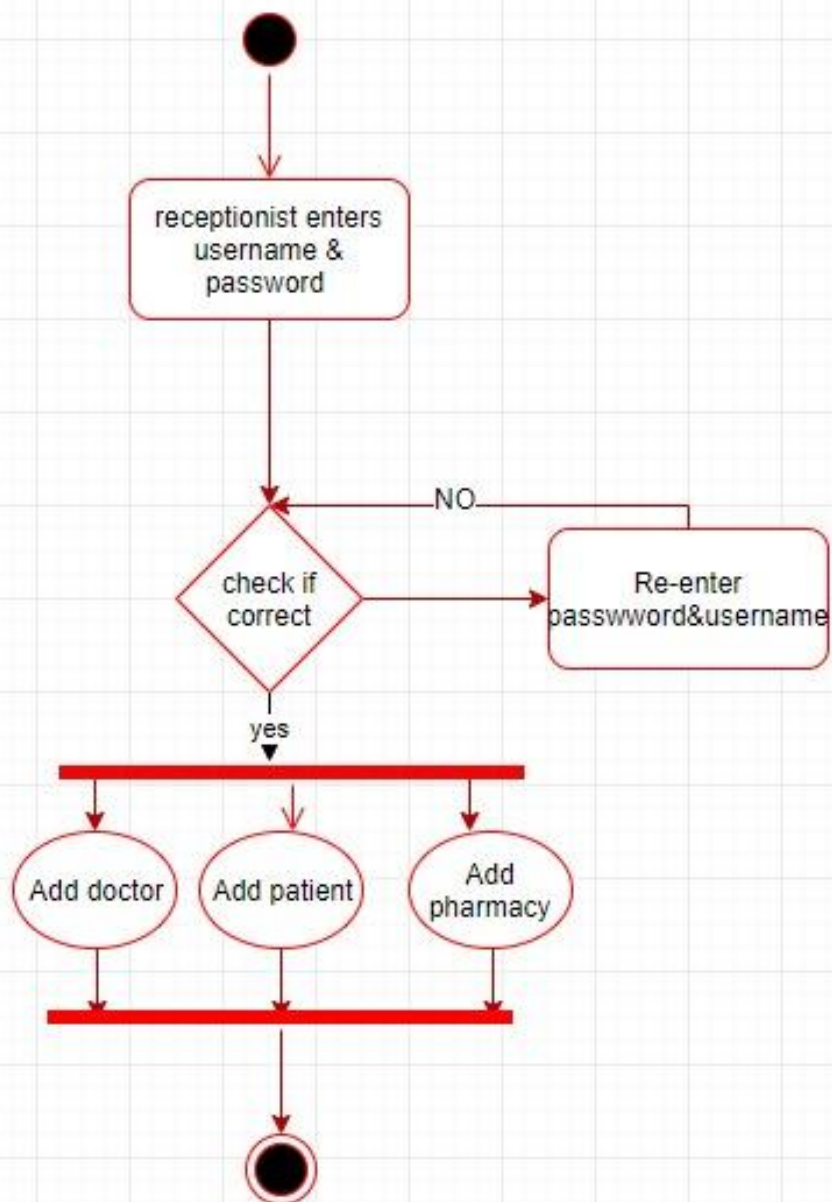




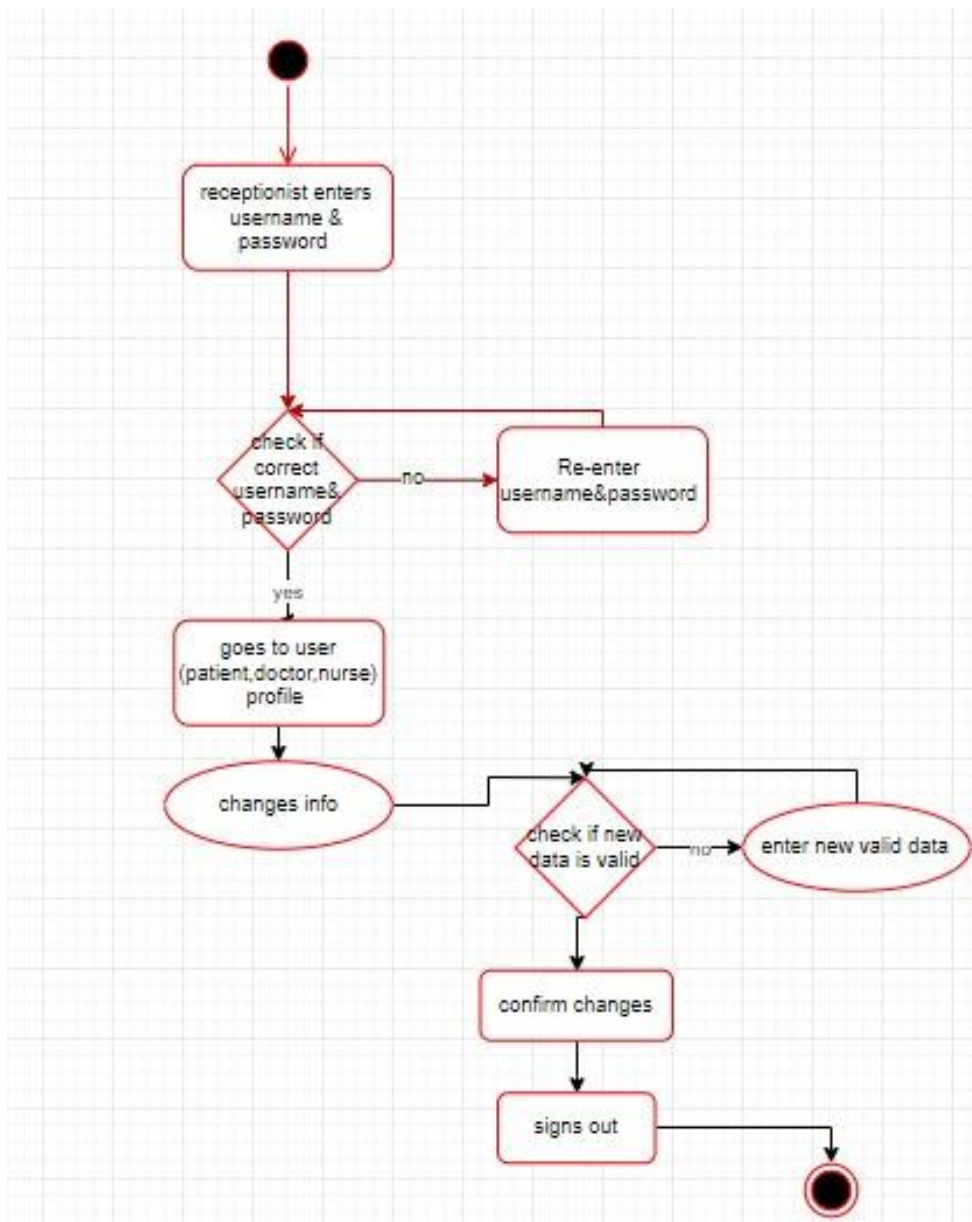
4.5 Activity Diagrams

Receptionist: Adds new user

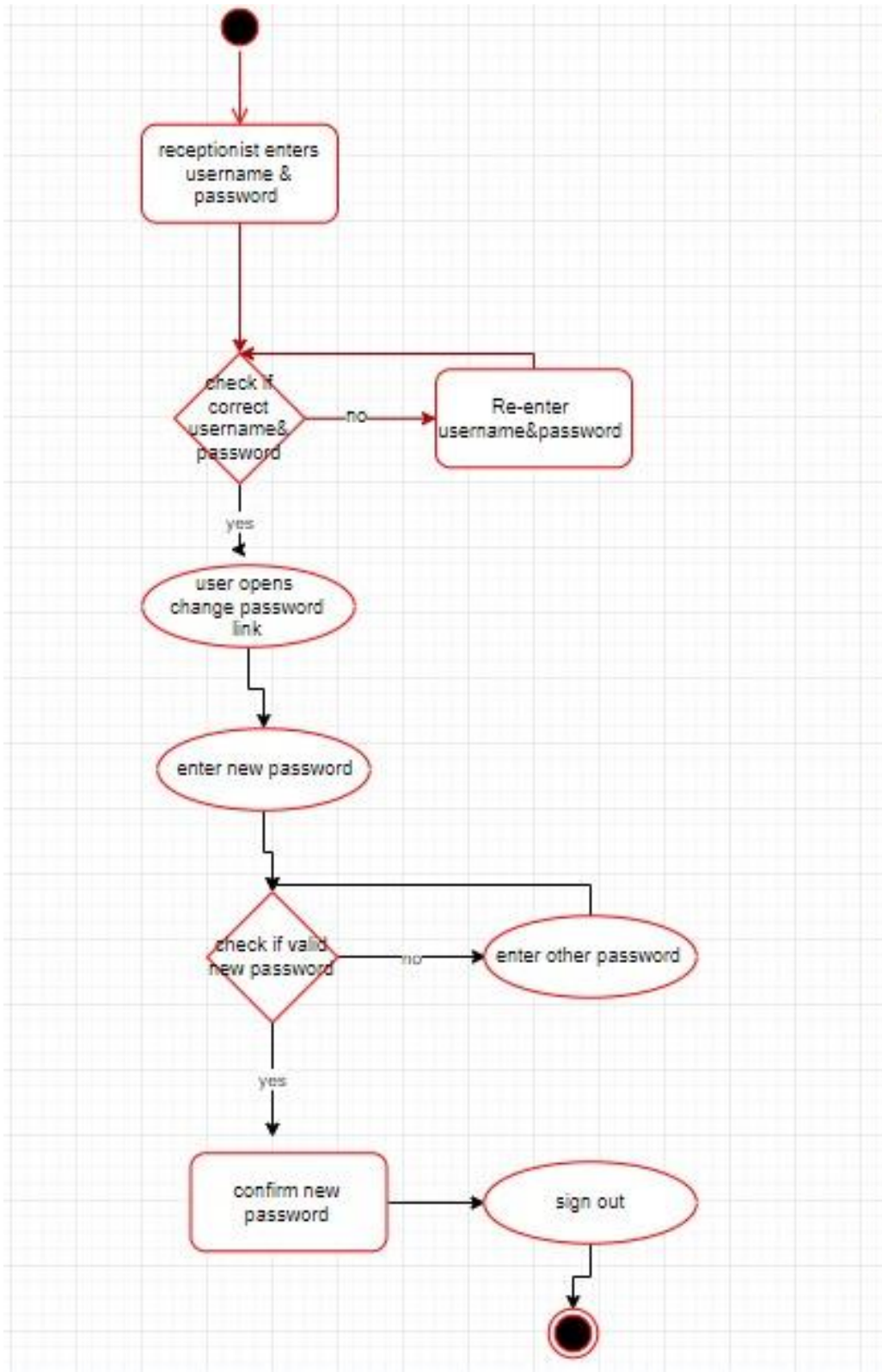
receptionist : Add new user



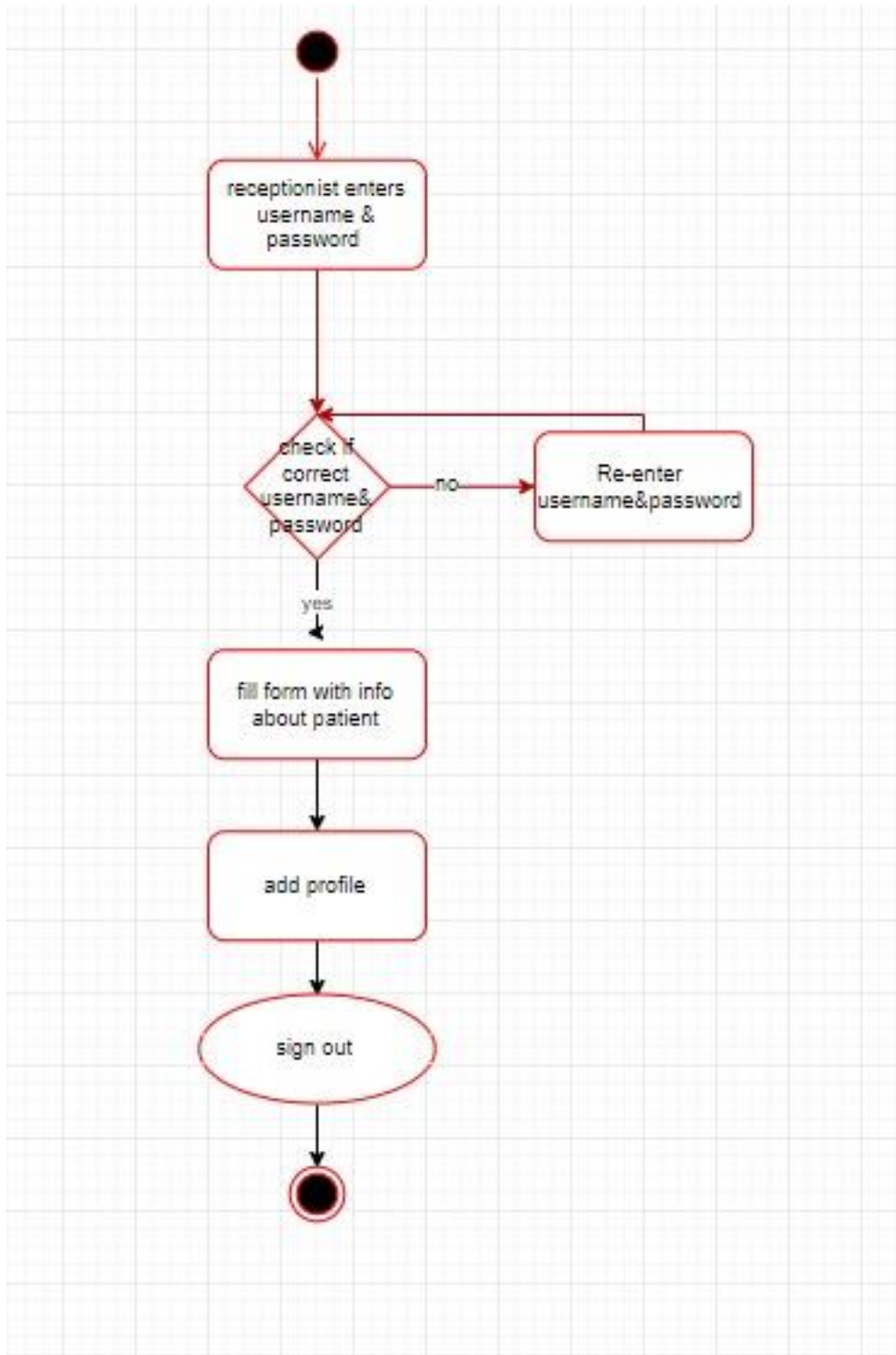
Edit user profile



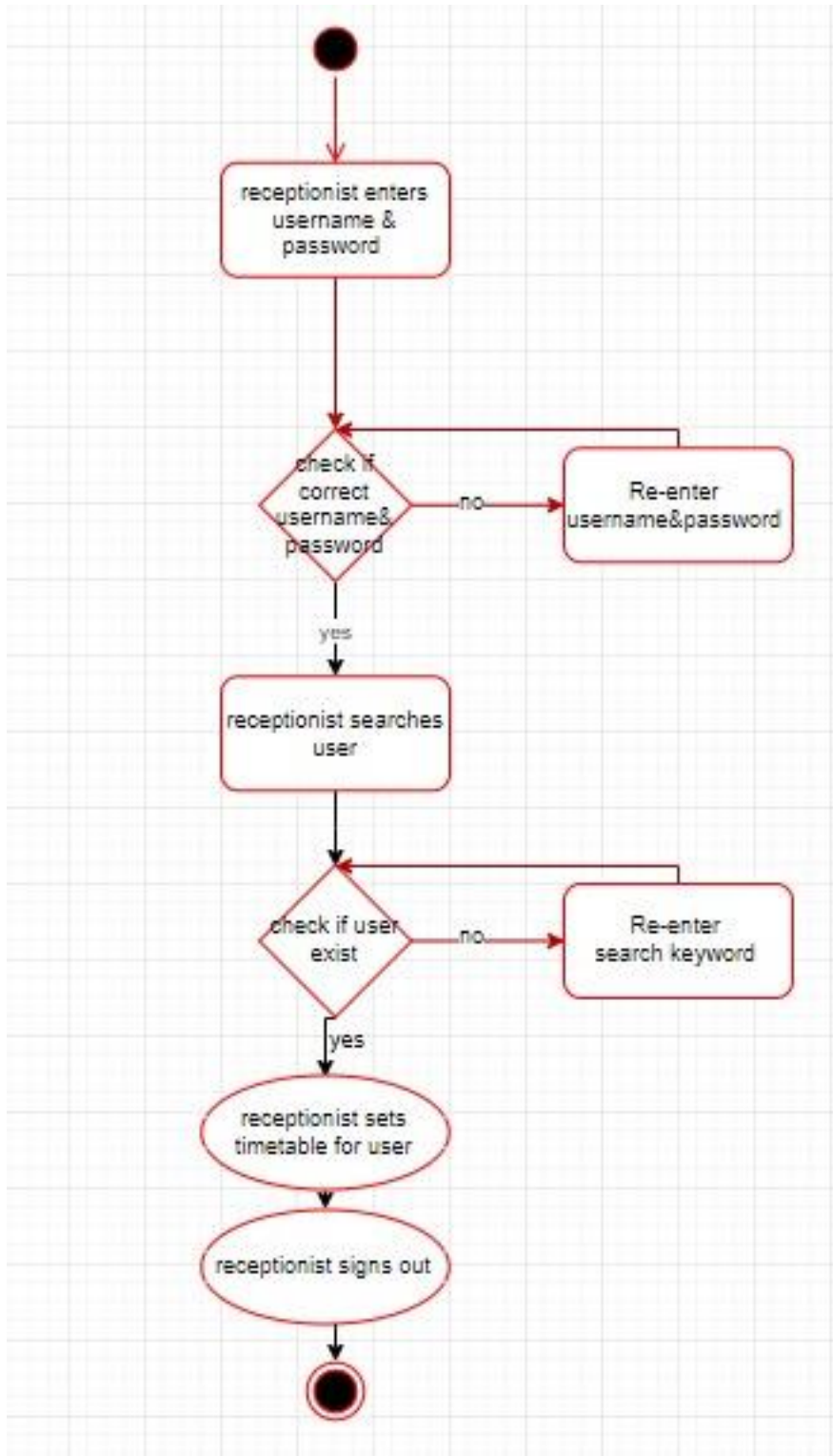
Change password



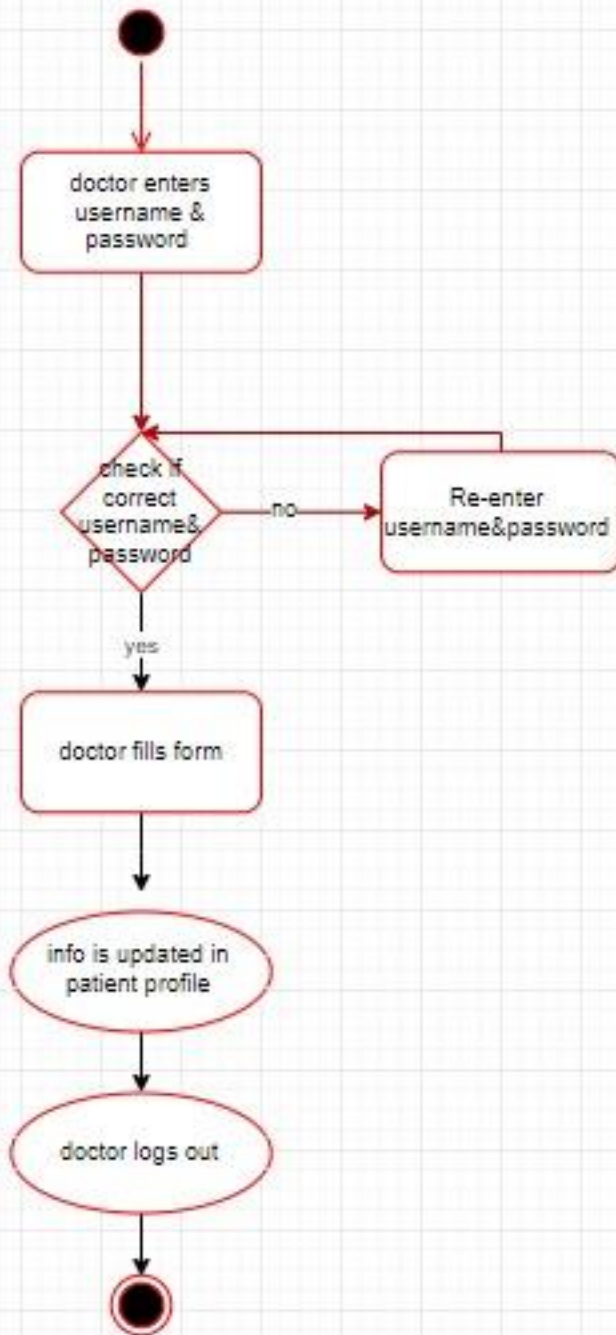
Register patient(by receptionist)



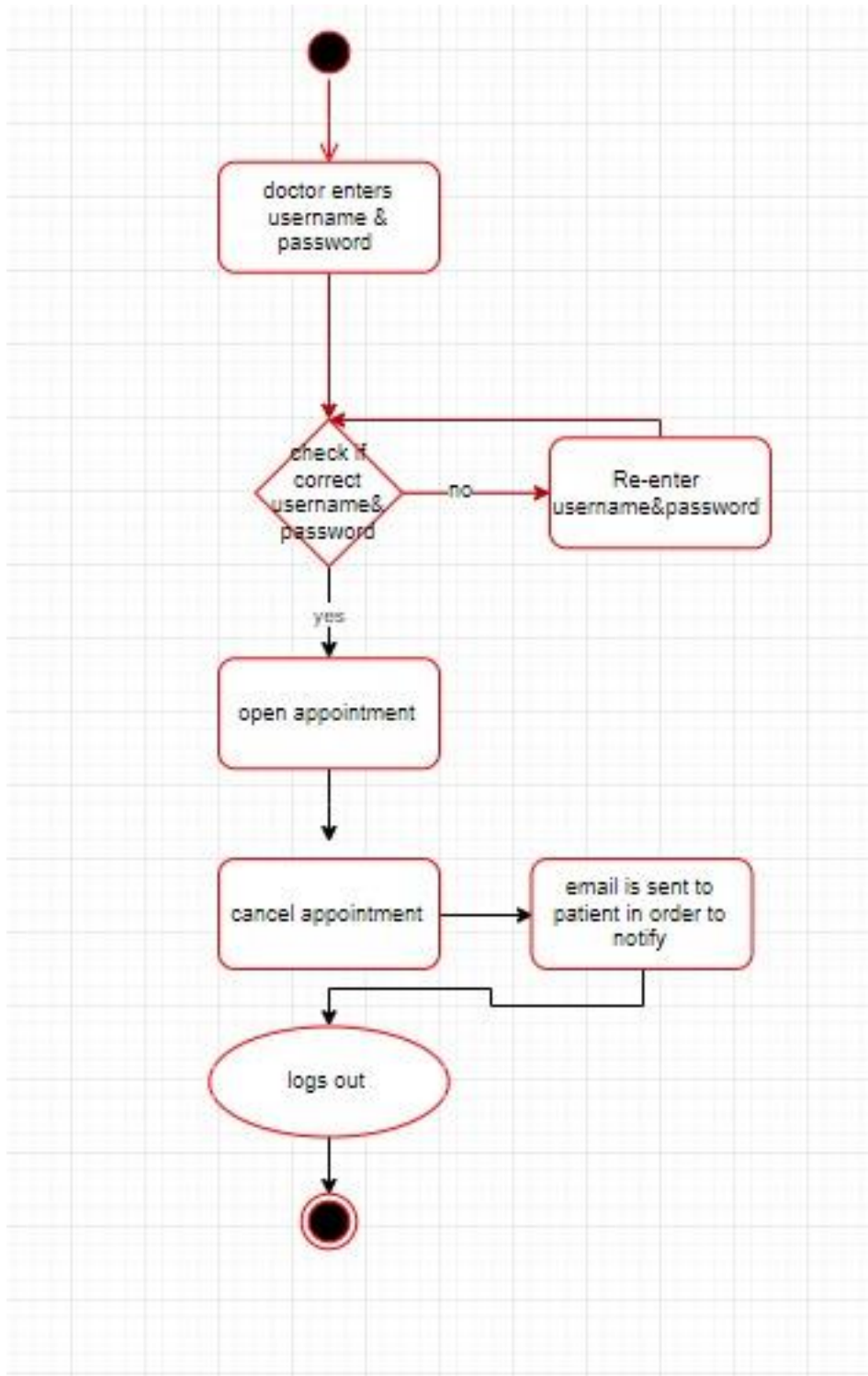
CMS Documentation
Set Timetable



Finish appointment

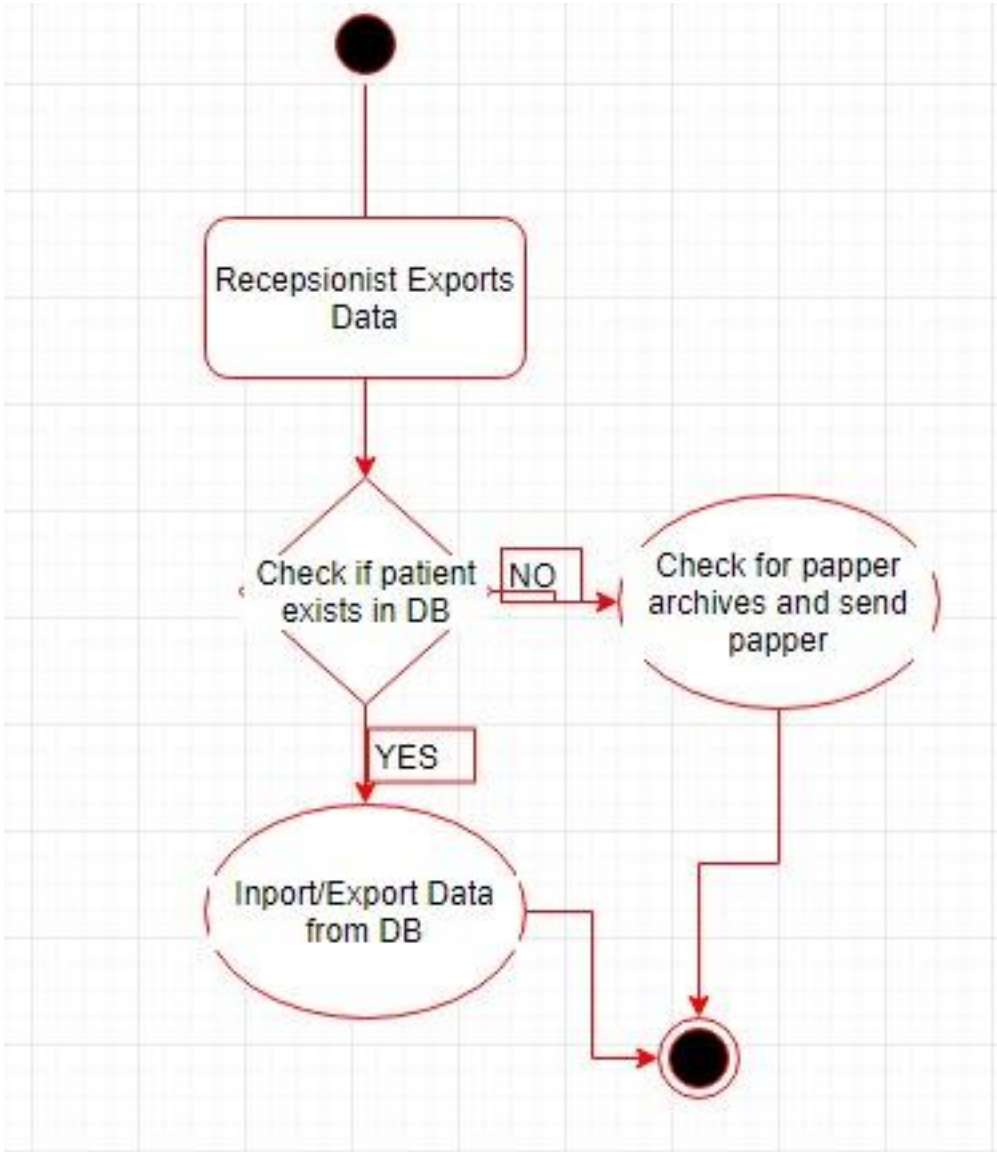


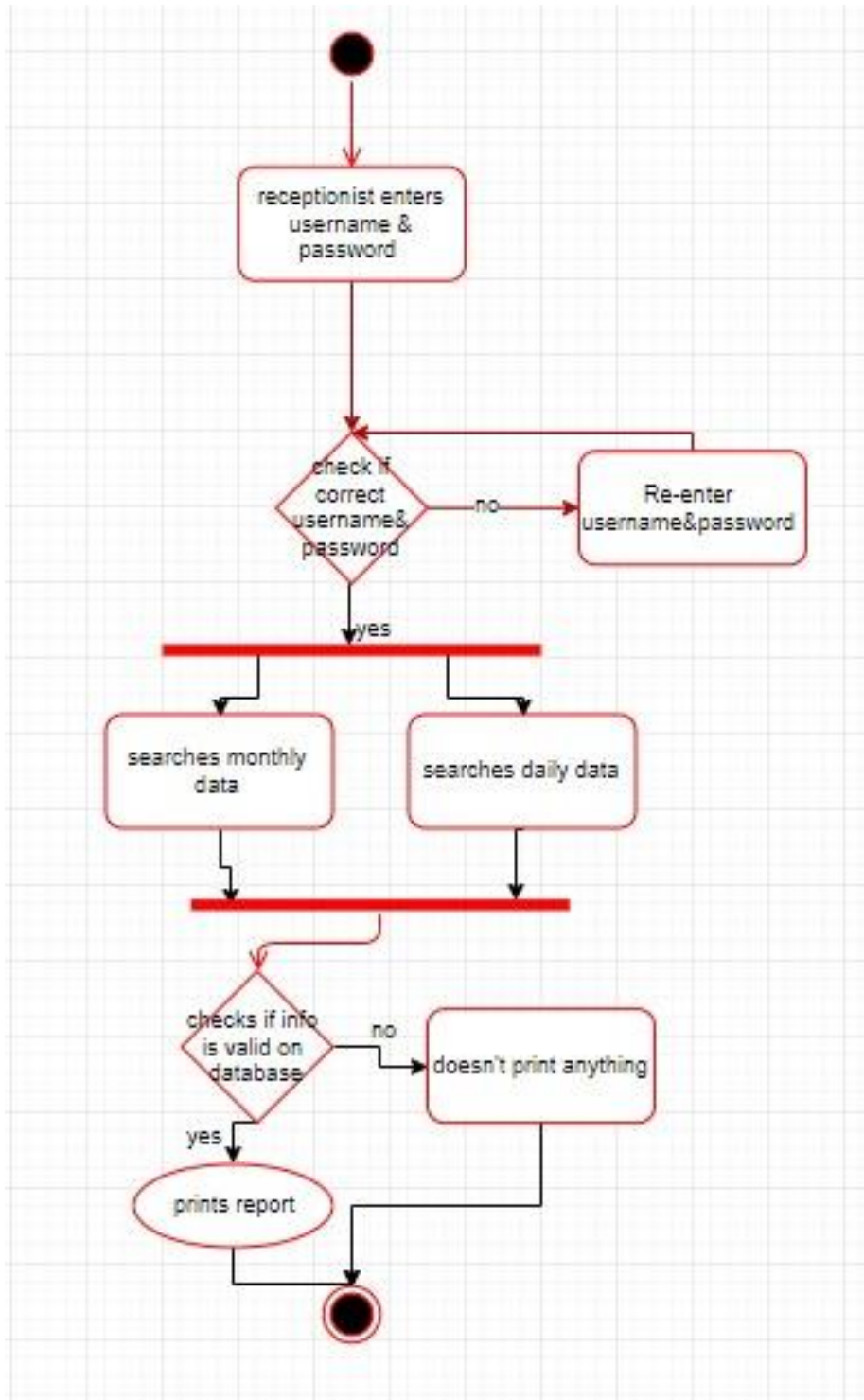
CMS Documentation
Cancel appointment



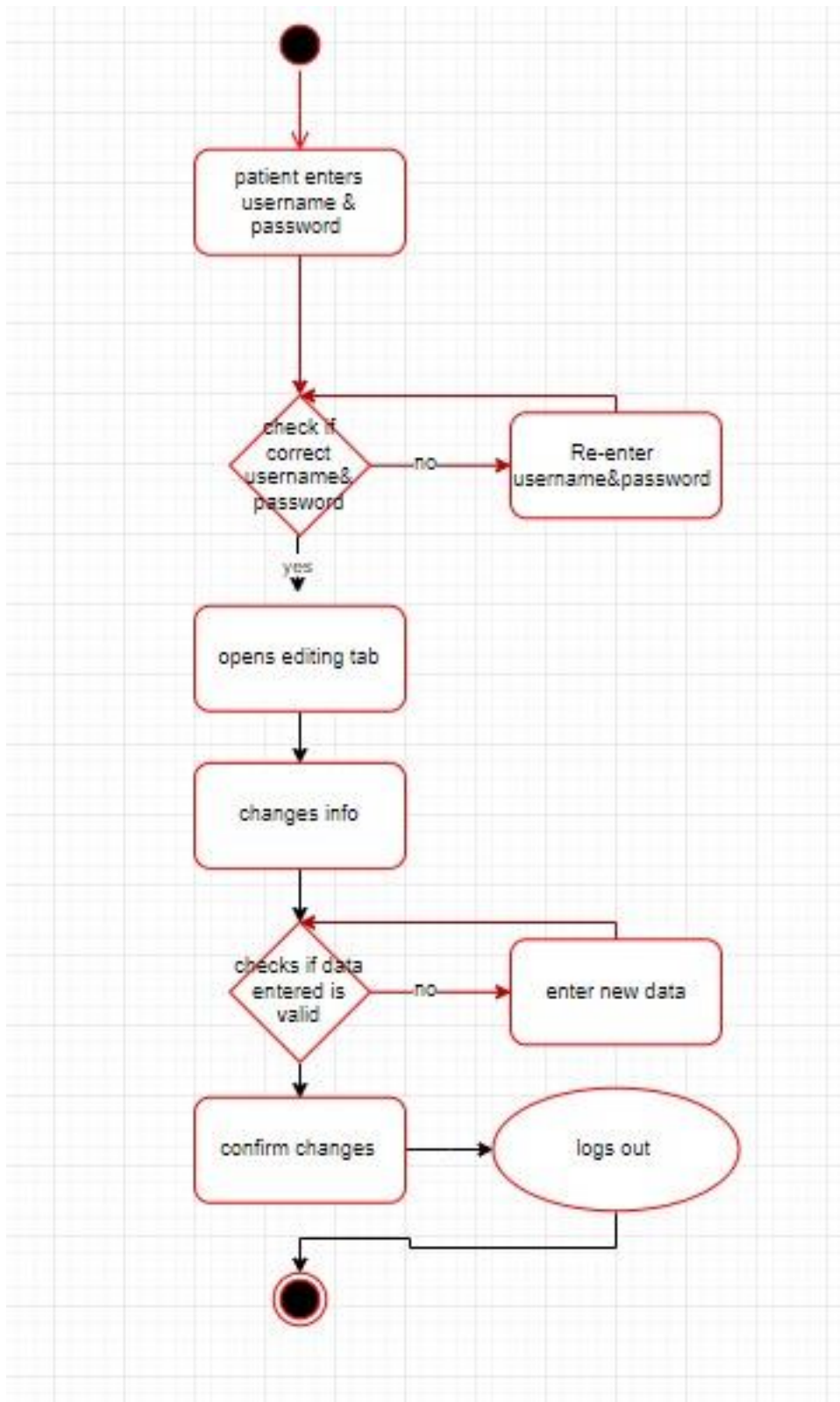
CMS Documentation

Import/Export data

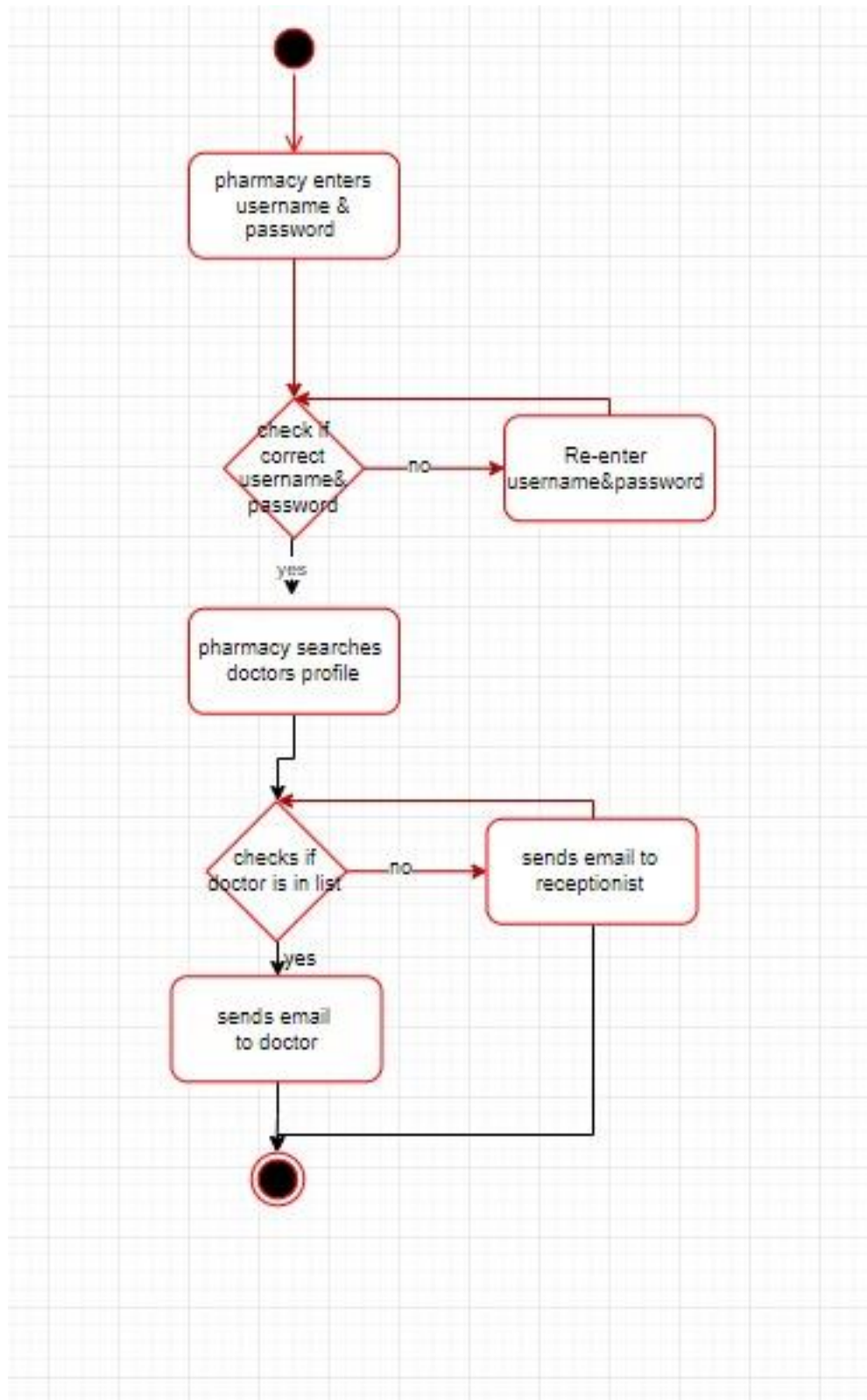


Generate report

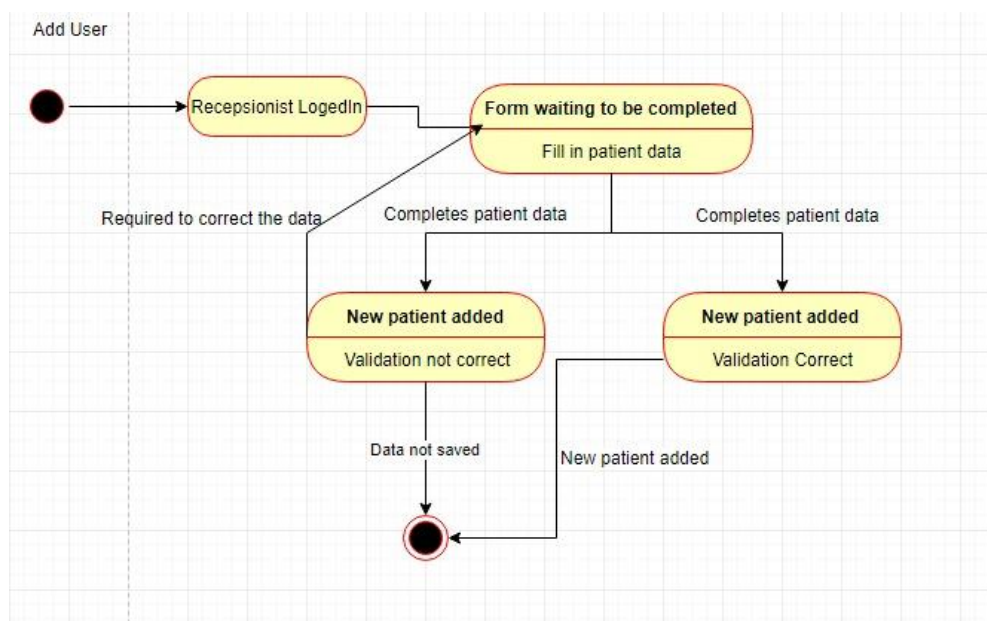
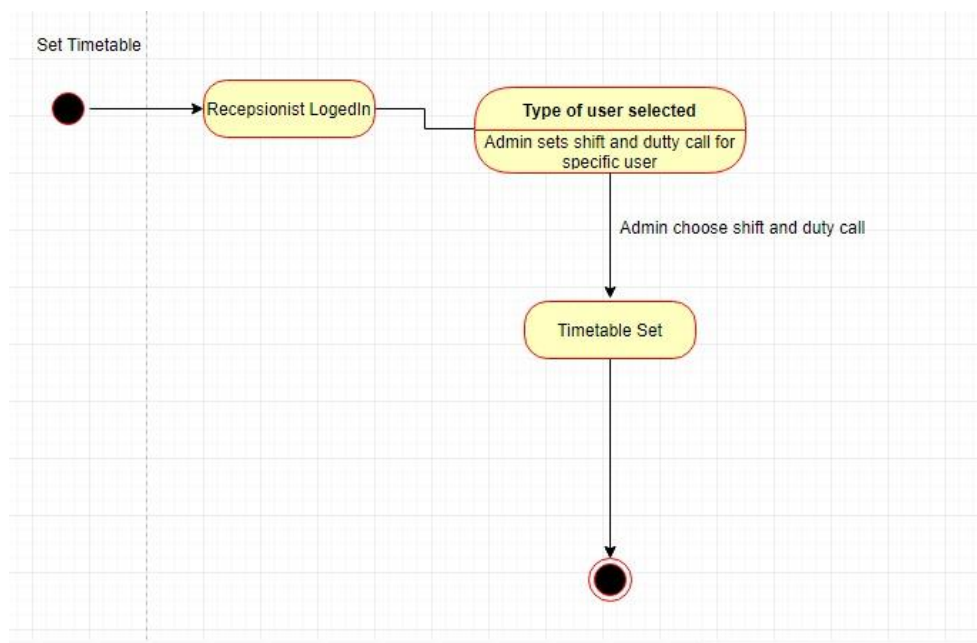
CMS Documentation
Patient edits its own profile

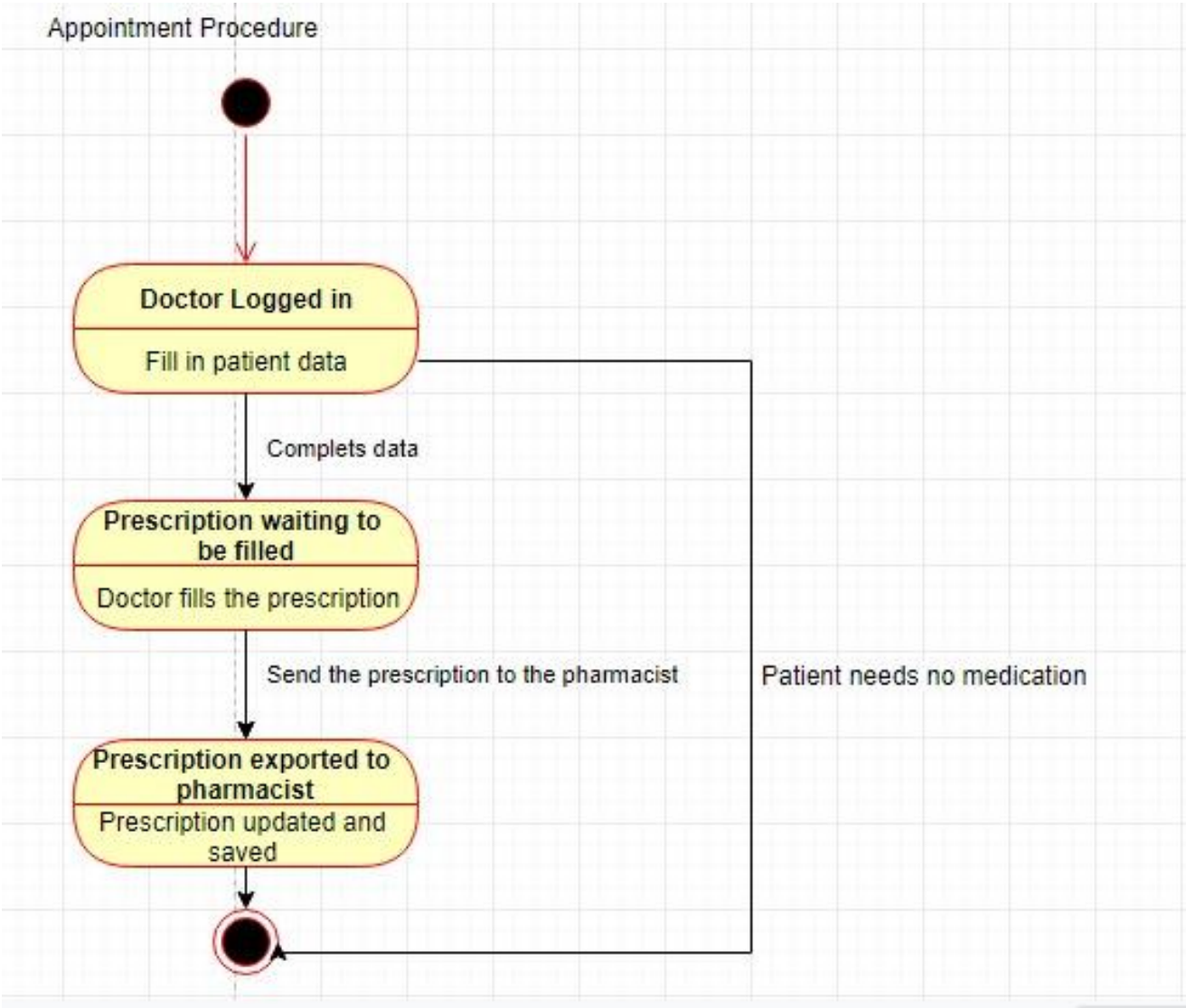


CMS Documentation
Pharmacist contacts with doctor



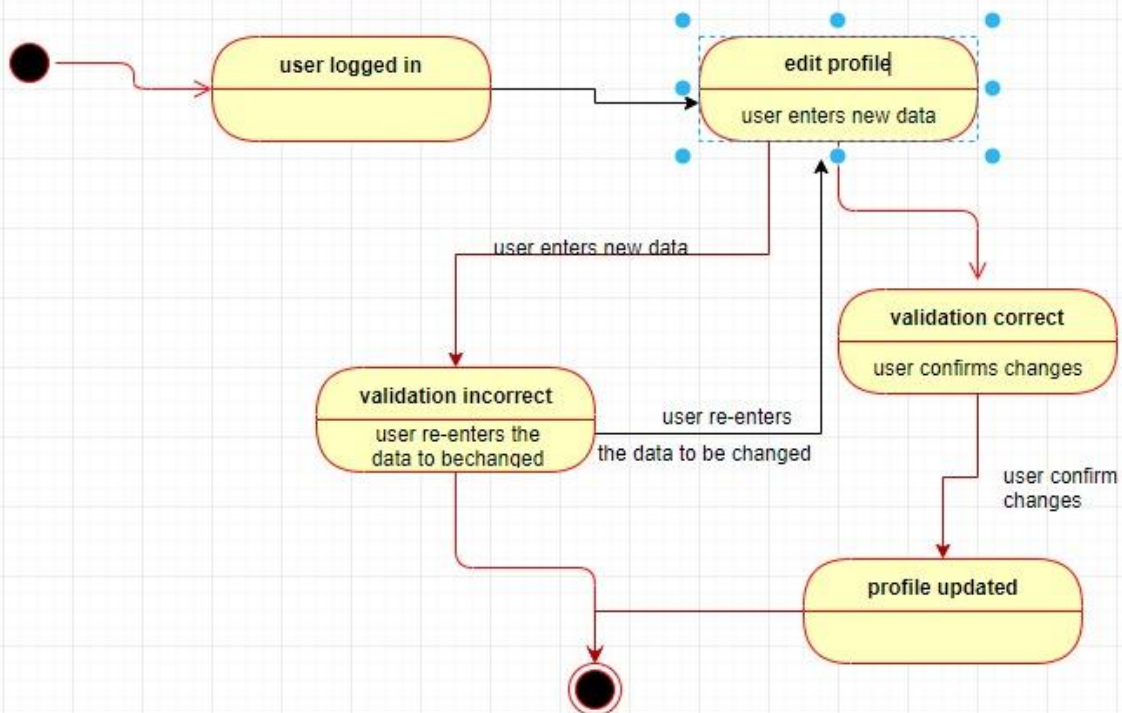
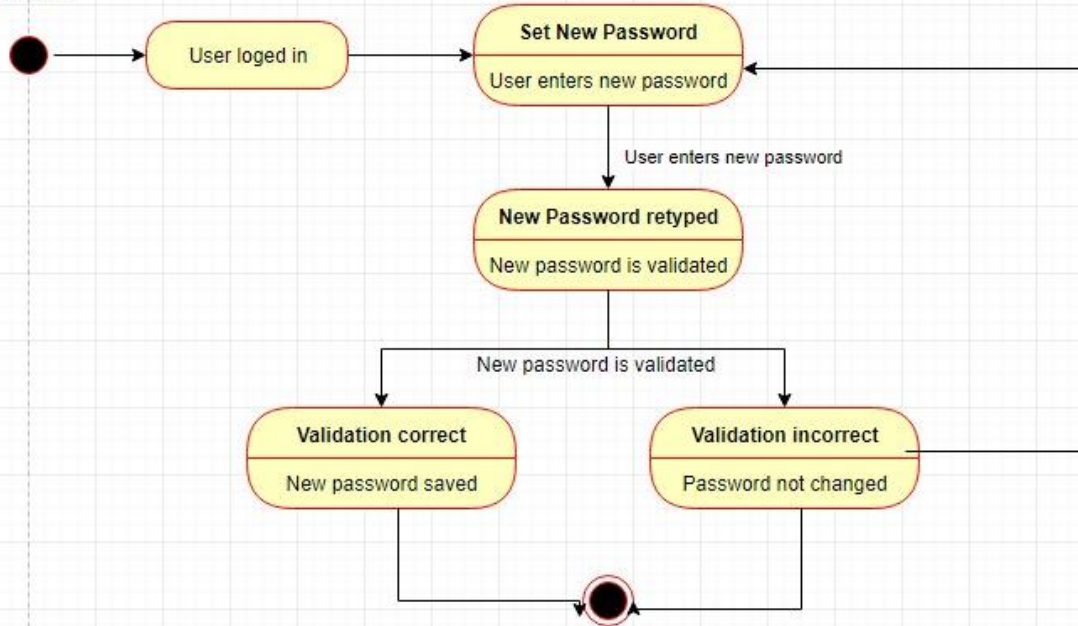
4.6 State Diagrams

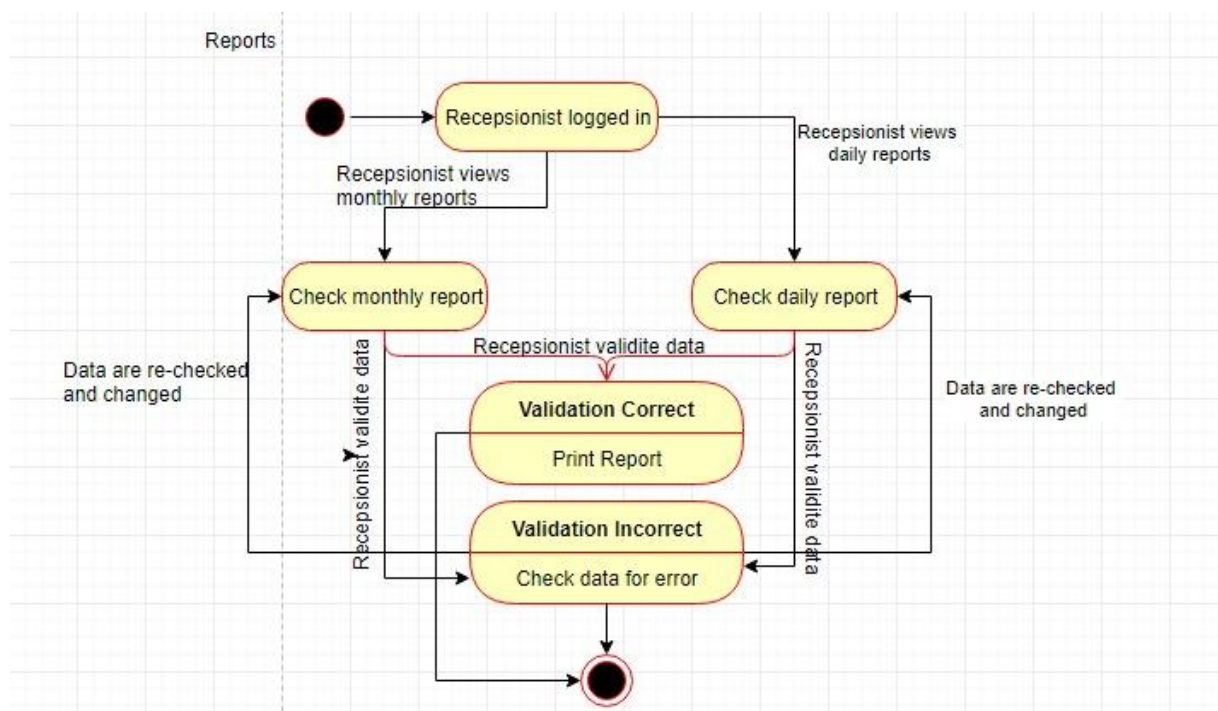
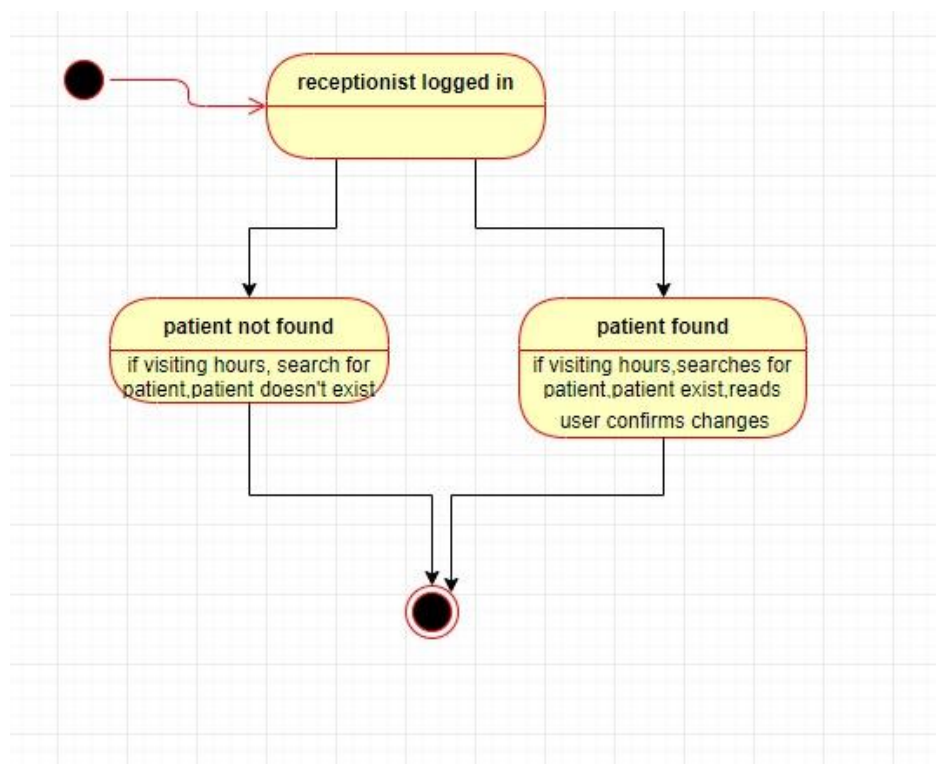




CMS Documentation

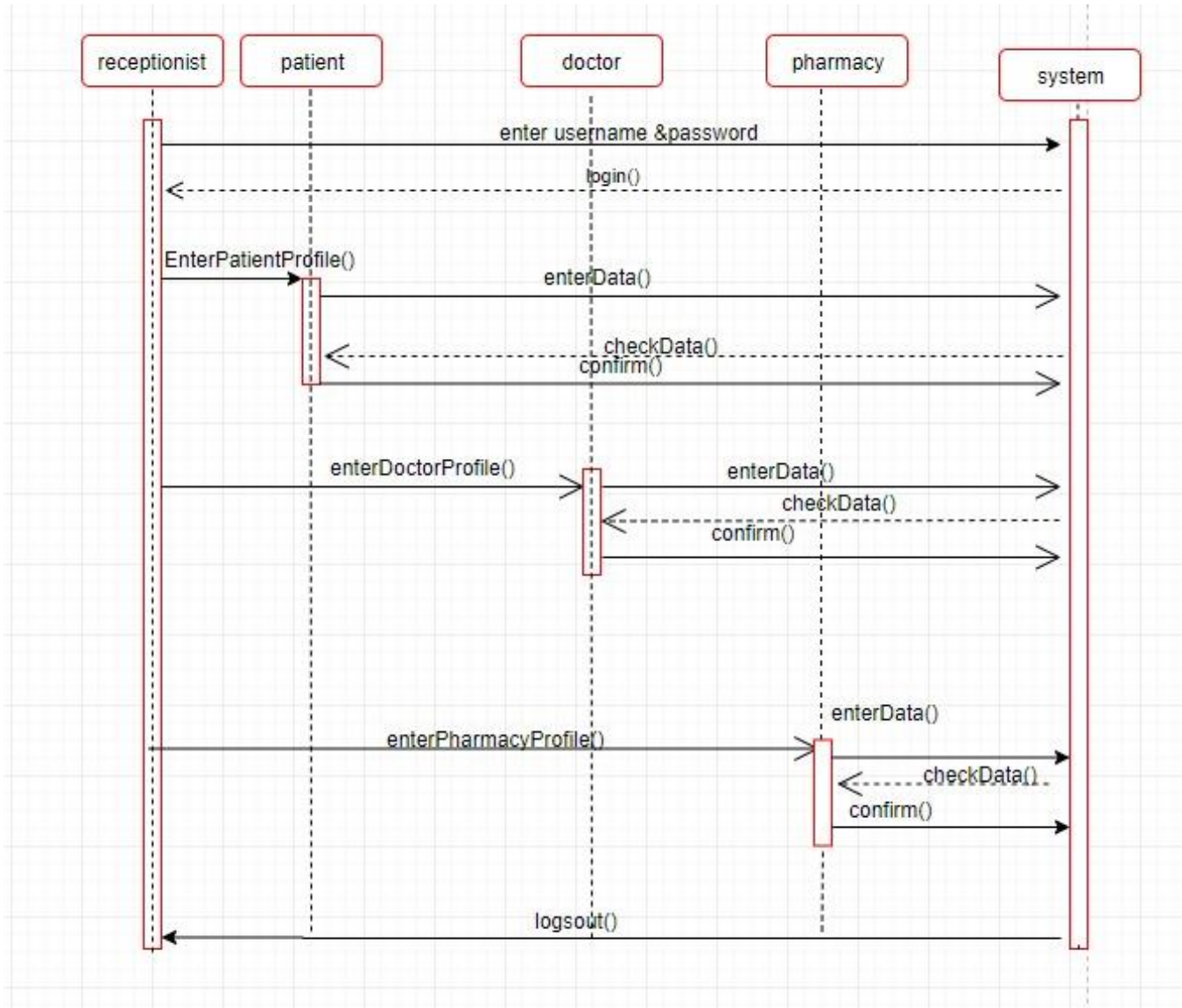
Change Password





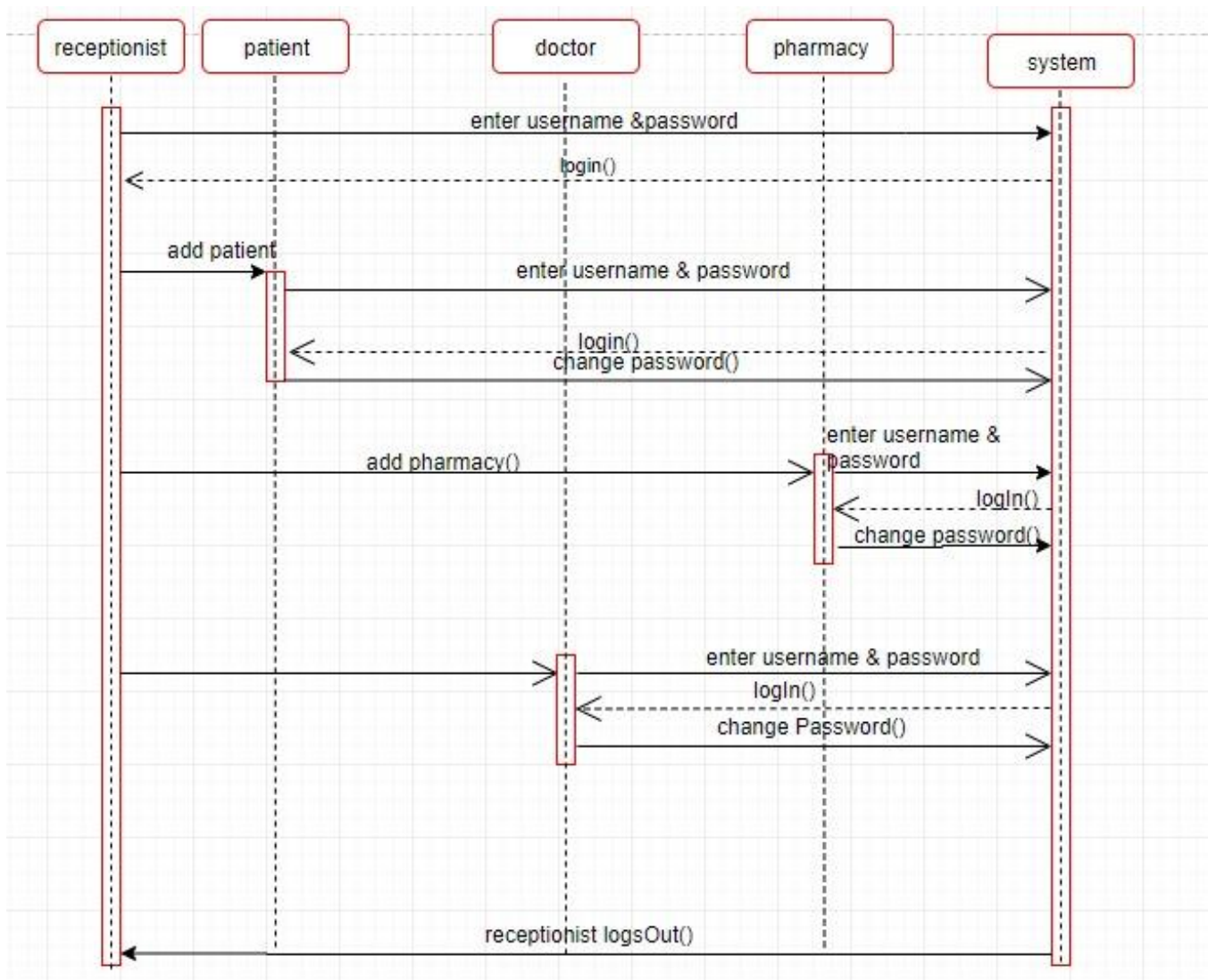
4.7 Sequence Diagrams

Edit Users Profile(By receptionist)

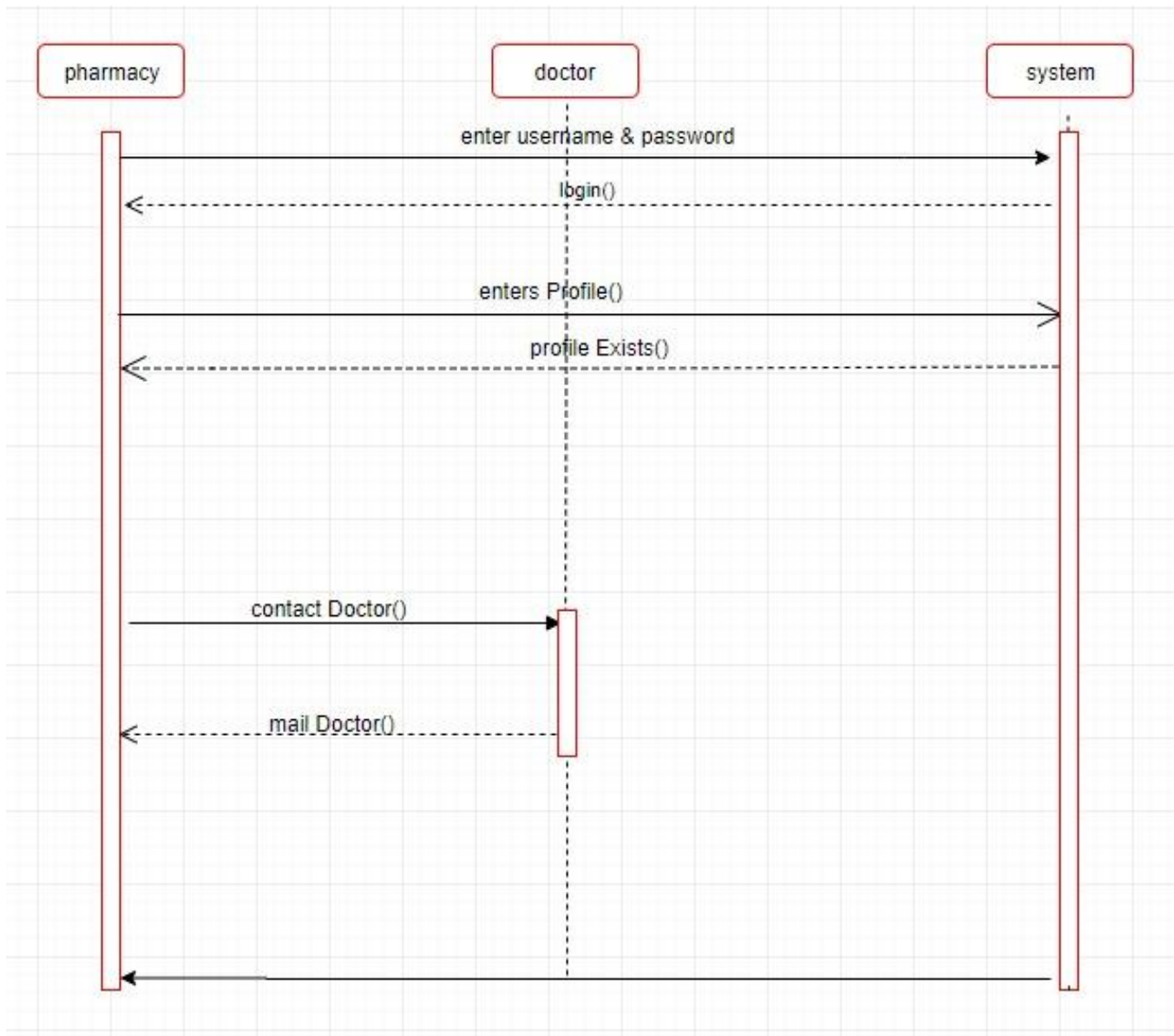


CMS Documentation

Add new user

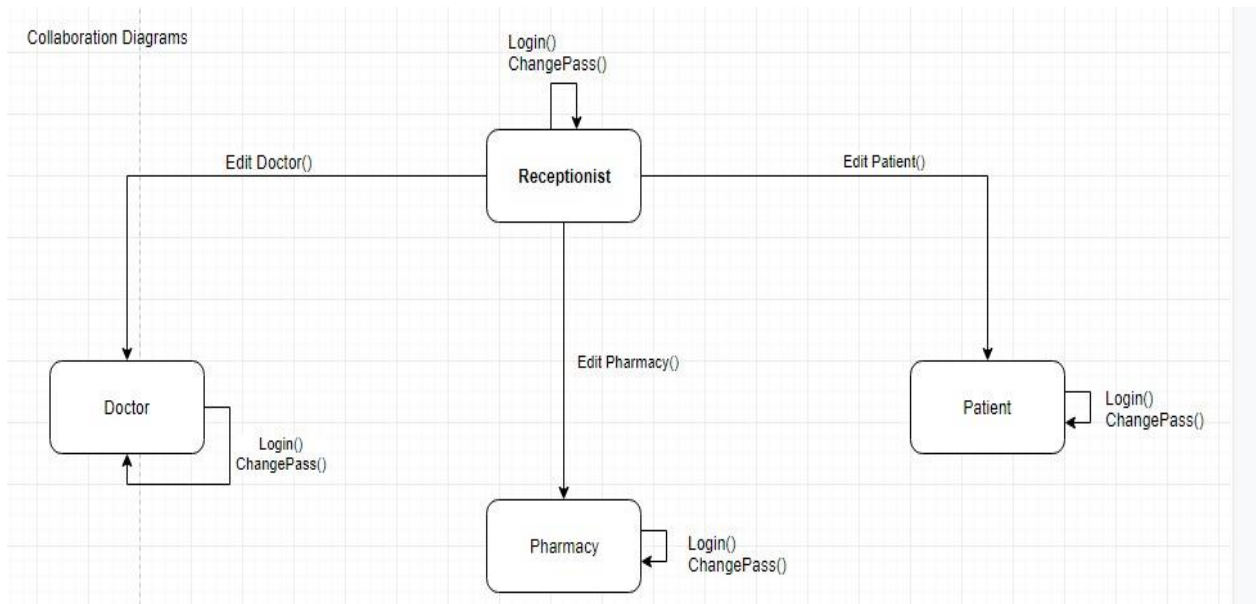


CMS Documentation
Pharmacy communicates with doctor

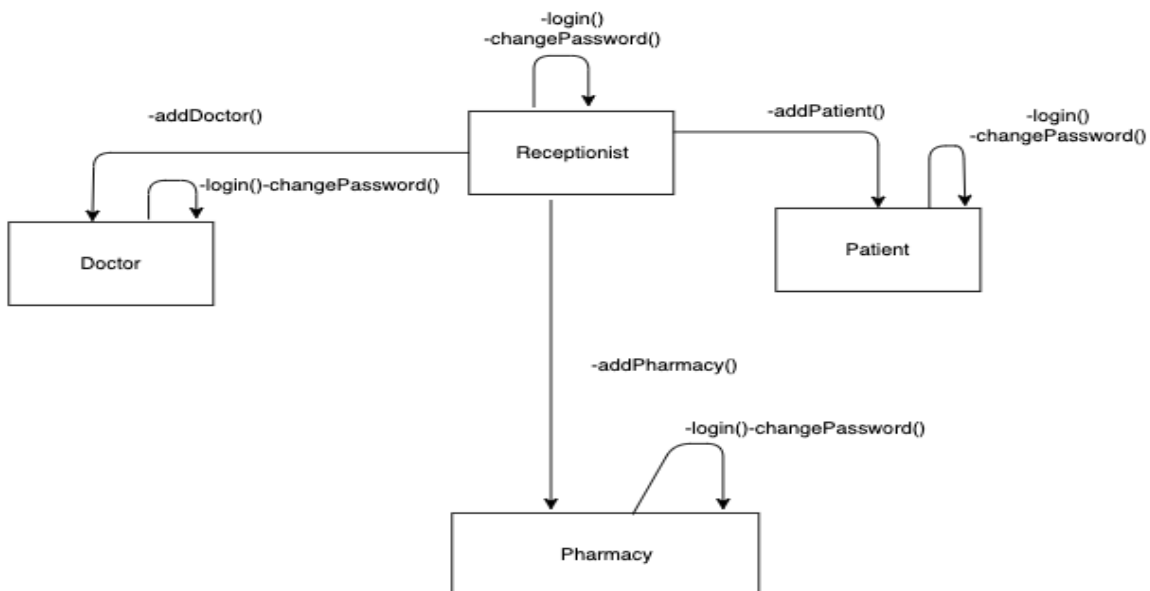


4.8 Collaboration Diagrams

Edit user profile

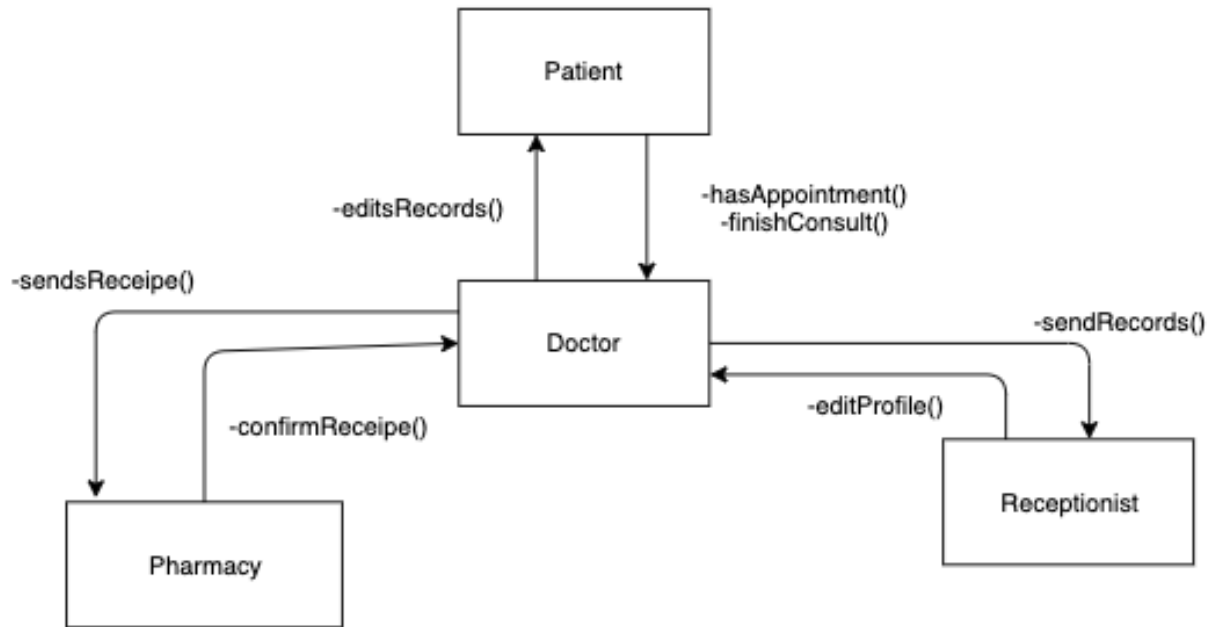


Add new user

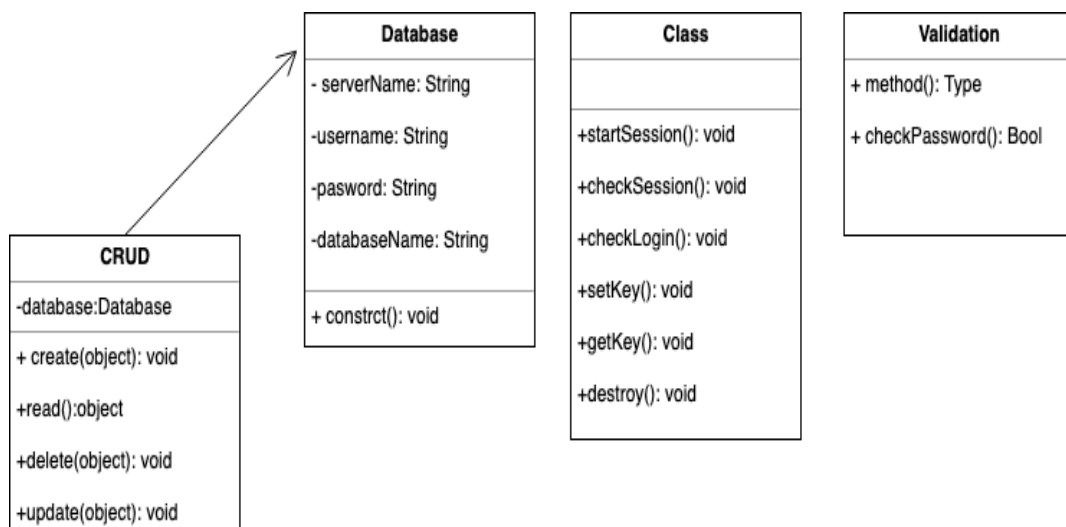


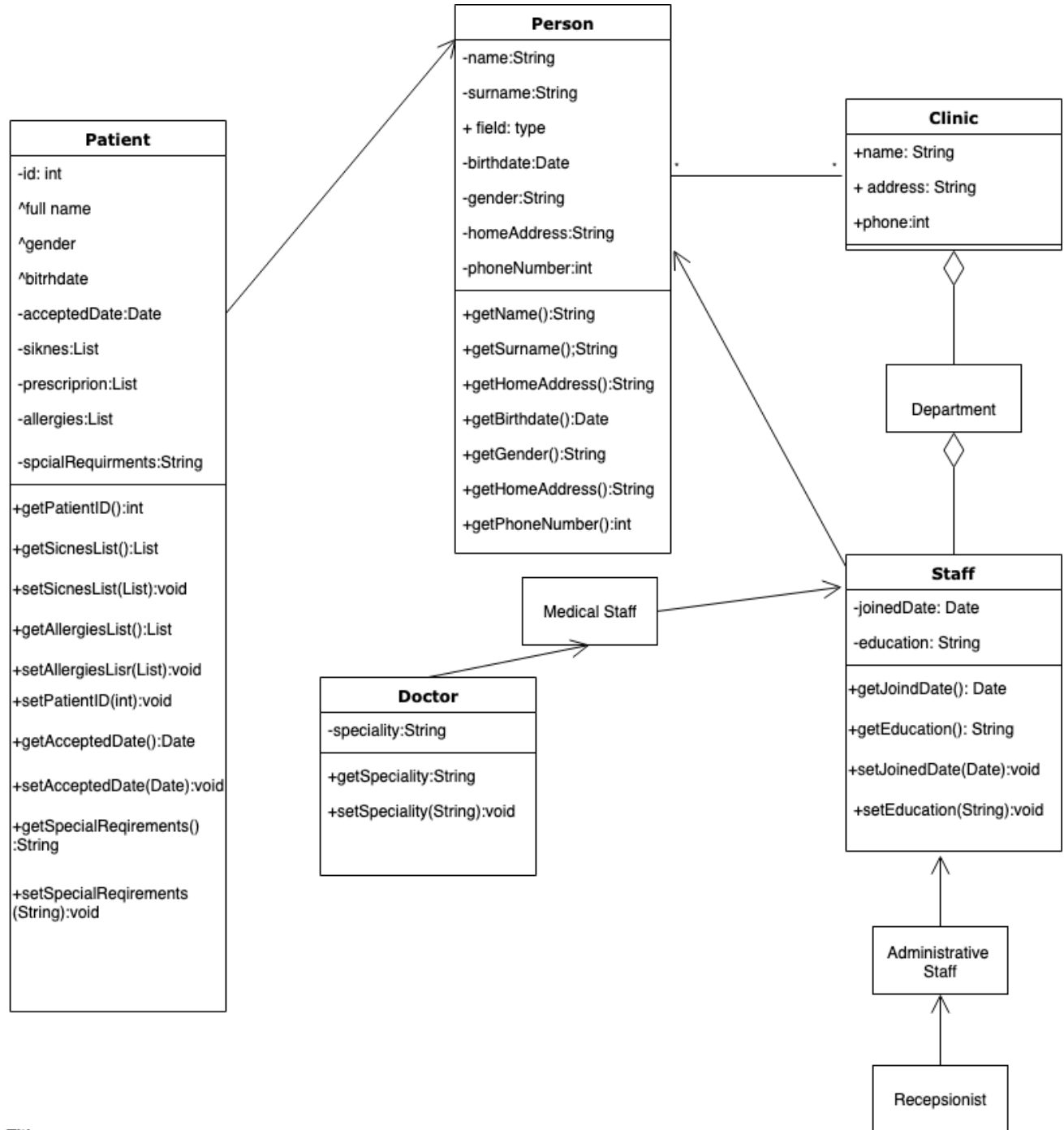
CMS Documentation

Appointment



4.9 Class Diagrams





Title


APPENDIX

Sketches

Login

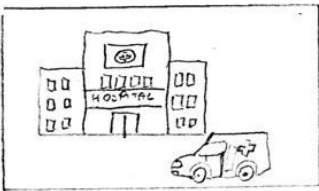
Username

Password




Tel: 1355XXXXXX


Shërbime Mjekësore
Stafi Mjekësor
Pacienti
Shërbime




Rezervoni




Shërbimet



Mjekët



Të Reja



Contact:
Instagram
Facebook
Jemi në linë - Rezervoni Online

Tel: 1355XXXXXX

Shërbime Mjekësore
Stafi Mjekësor
Pacienti
Shërbime

Shërbime Mjekësore

check up

kardiologji

kirurgji Plastike

Laborator

Neurologji

Ortopedi

Urologji

Urgjencë 24hr

CMS Documentation

tel: +355 XXXXXXX

Search

☒ Shërbime Mjekësore Stafji Mjekësor Pacienti Shërbime

Stafji Mjekësor



Dr.



Dr. ...



Dr.



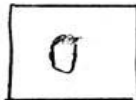
Dr. ...



Dr.



Dr. ...



Dr. ...



Dr. ...



Dr. ...



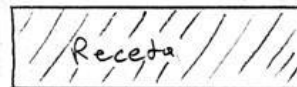
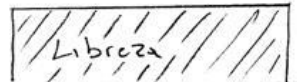
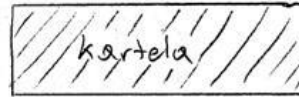
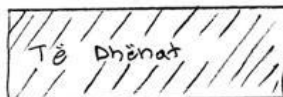
Dr.

tel: +355 XXXXXXX

Search

☒ Shërbime Mjekësore Stafji Mjekësor Pacienti Shërbime

Pacienti



tel: +355 XXXXXXX

Search

☒ Shërbime Mjekësore Stafji Mjekësor Pacienti Shërbime

Pacienti / Të dhënat

Emër: Mbiemër:
 Moshë:
 Adresë:
 Kontakti:
 kontakt emergjencë:
 Pasaport ID:
 Gjak:
 Username: Password:
 Status:

CMS Documentation

67d4355xxxxxx

Search

☒ Shërbime Mjekësore Staf Mjekësor Pacienti Shërbime

Rezervoni

◀	Mars						▶
1	2	3	4	5	6	7	
8	9	10	11	12	13	14	
15	16	17	18	19	20	21	
22	23	24	25	26	27	28	
29	30	31					

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Search

☒ Shërbime Mjekësore Staf Mjekësor Pacienti Shërbime

Rezervoni

1	Dr	X
2	Dr	Y
3	Dr	A
4	Dr	D
5	Dr	H
6	Dr	L
7	Dr	ZH

→

01:00 AM	11:00 AM	10:00 PM
02:00 AM	12:00 AM	11:00 PM
03:00 AM	01:00 PM	00:00
04:00 AM	02:00 PM	
05:00 AM	03:00 PM	
06:00 AM	04:00 PM	
07:00 AM	05:00 PM	
08:00 AM	06:00 PM	
09:00 AM	07:00 PM	
10:00 AM	08:00 PM	
	09:00 PM	

67d4355xxxxxx

Search

☒ Shërbime Mjekësore Staf Mjekësore Pacienti Shërbime

Rreth Mesh

Info

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CMS Documentation

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Search

☒ Shërbime Mjekësore Staf Mjekësor Pacienti Shërbime

Pacienti / Kartela

Kartela Personale Nr.

Ambulanca:
Mjetu Familjes

Rekordim nga:
.....
Gr. i gjatësi:
Rh. Faktor:

Data e hapjes së kartelës:
kodi i pacientit:
Nr. i ligjimit:
Grupi i inaktivitetit:
Nr. dok. identifikimit:

Emri: ... Atësi: ... Mbiemri: ...
Data lindje: ... Muesi: ... Vendi: ... Nr. tel: ...
Adresa: ...
Profesioni: ... Detyra: ...
Vendbanimi: ...

0123456789

Search

☒ Shërbime Mjekësore Staf Mjekësor Pacienti Shërbime

Pacienti / Receta

Emër: ... Atësi: ... Mbiemri: ...
Moshë: ... Gjinia: ...

.....
.....
.....
.....

Vite

0123456789

Search

☒ Shërbime Mjekësore Staf Mjekësor Pacienti Shërbime

Stafi Mjekësor / Dr. X



Emër: ... Mbiemri: ... Nr. tel: ...
Moshë: ...
Arsimi: ...
Jehu: ...
.....
% Vdekjes: