

Architecture Diagram

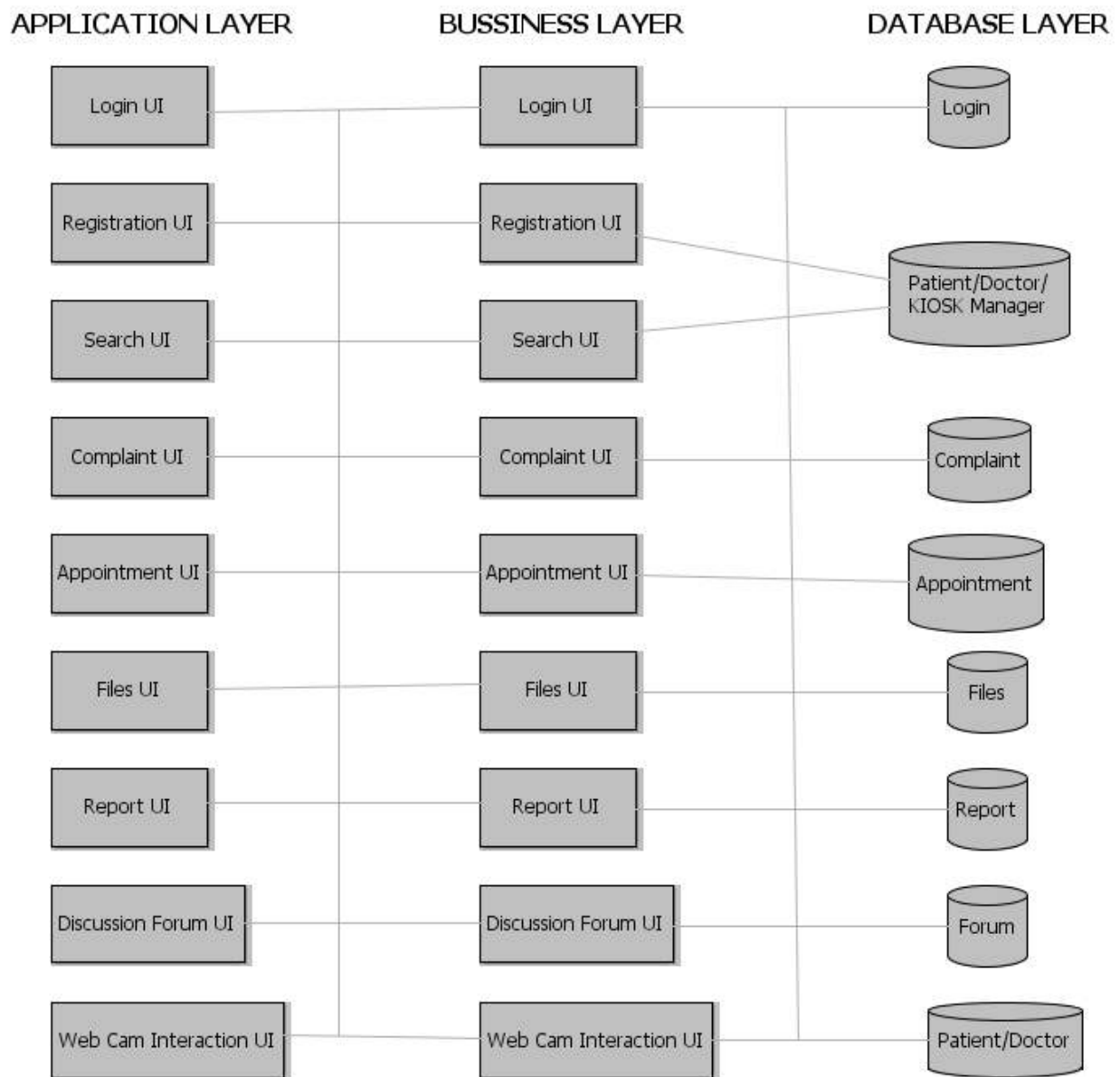


Figure 1 : Architecture Diagram

Use Case Model Survey

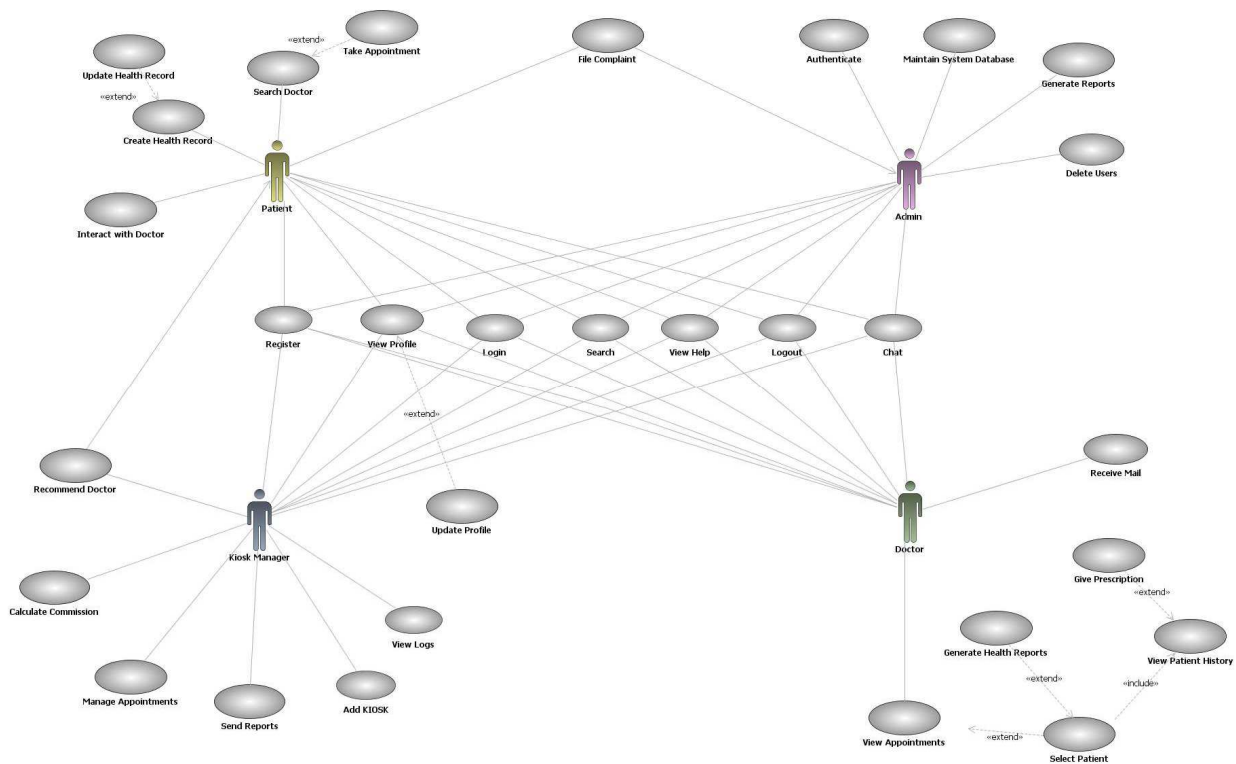


Figure 2 : Use Case Model Survey

Patient:

Patients can search for doctor and make online appointments. They also can view their health record, lab reports, doctor's prescription and medical expenses. Patient can also register complaint on any doctor.

Doctor:

Doctor's can give appointments, e-prescription and can update and view patient's health record.

Kiosk Manager:

Kiosk Manager views and manages the appointments, performs day open and close activities and calculates his commission. He also sends reports to admin.

Admin:

Admin has the authority to add/delete users, grant permission to doctors and kiosk manager, to generate and view reports. He also views the complaints of patients and takes necessary actions.

Database Design

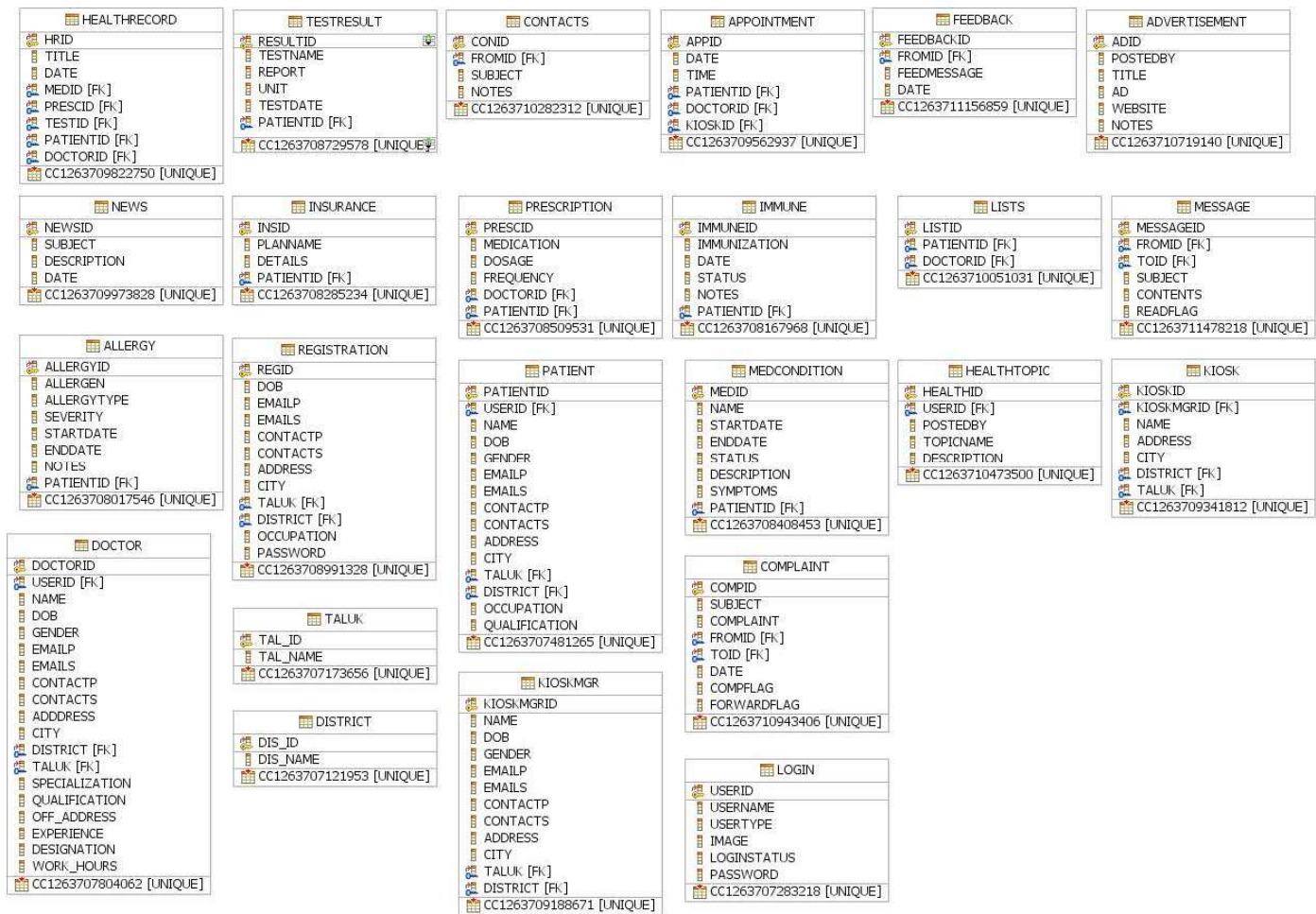


Figure 3 :Database Design

Activity Diagrams

User Registration Activity

Initially user is made to fill all mandatory fields filled in registration form. Once the user clicks submit, the username is verified. If the username is already present, then the user is again taken back, so that he can change the username. If the username is not present then it checks for password and remaining mandatory fields. If any of the mandatory field is left empty or filled incorrect, then the user is informed to enter the correct values. Once all these verifications are succeeded, then the registration is done.

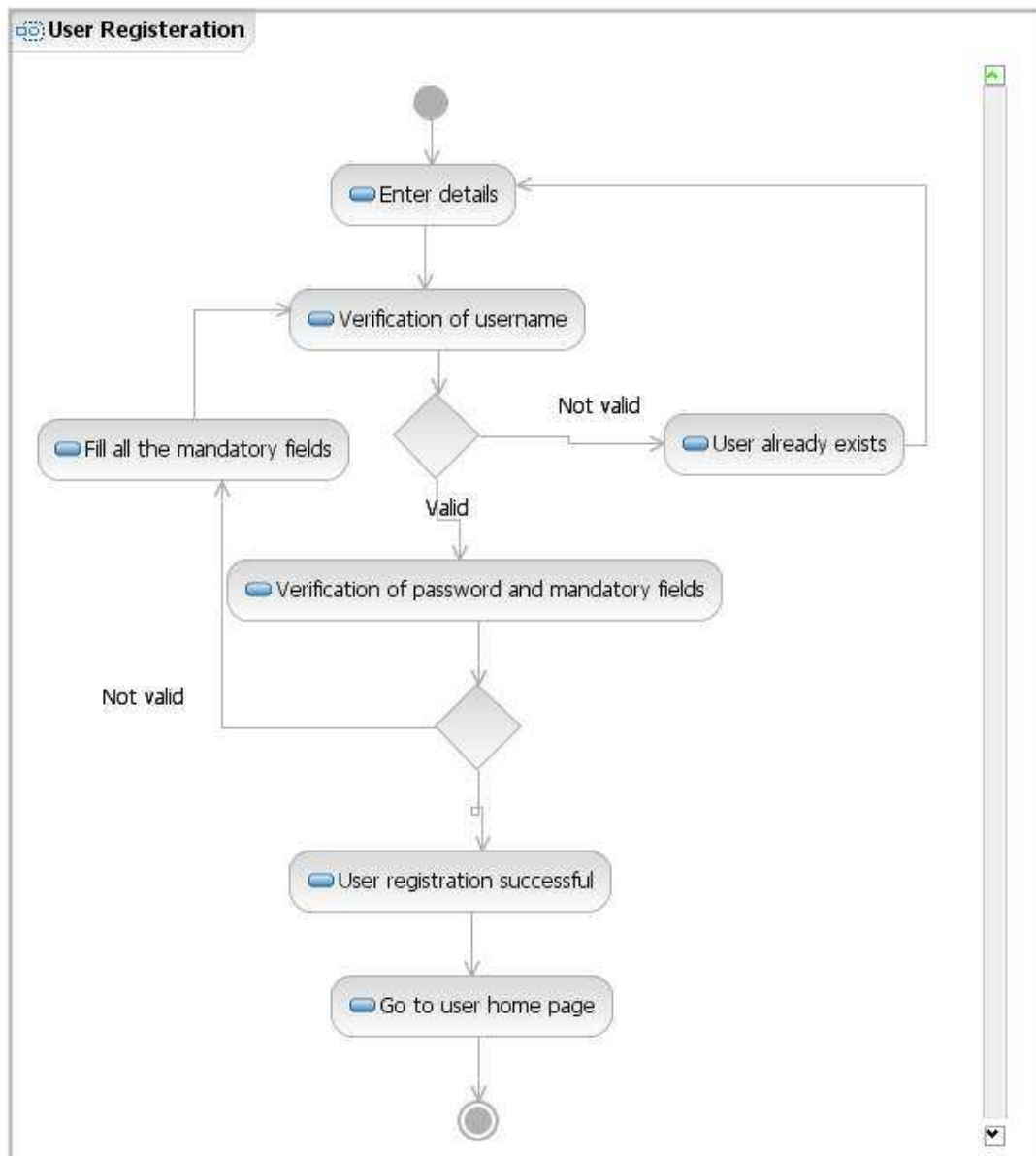


Figure 4 : Activity Diagram Representing User Registration

Doctor and Kiosk Manager Registration Activity

The doctor and KM needs to fill all mandatory fields filled in registration form. Once they click submit, the username is verified. If the username is already present, then they are again taken back, so that they can change the username. If the username is not present then it checks for password and remaining mandatory fields. If any of the mandatory field is left empty or filled incorrect, then they are informed to enter the correct values. These details are sent to admin for verification and the admin verifies the data and approves registration and grants privileges.

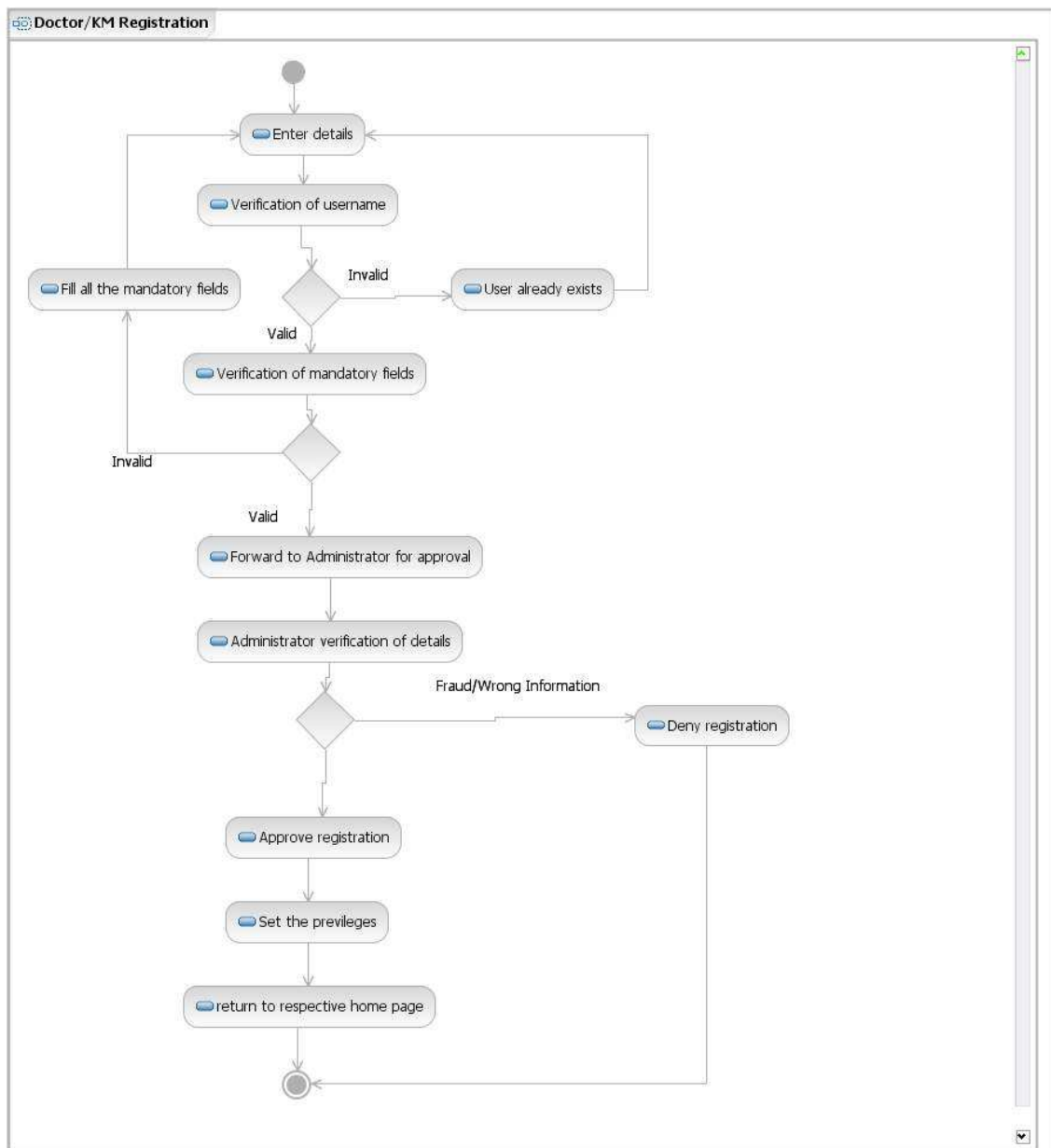


Figure 5 : Activity Diagram Representing Doctor and KM Registration

User Login Activity

User is made to enter the username and password, if he is signing in through KIOSK, KIOSK ID has to be entered, then entered values are verified. If it is a valid username and password, then the user is logged in, or else they are asked to re enter the correct values.

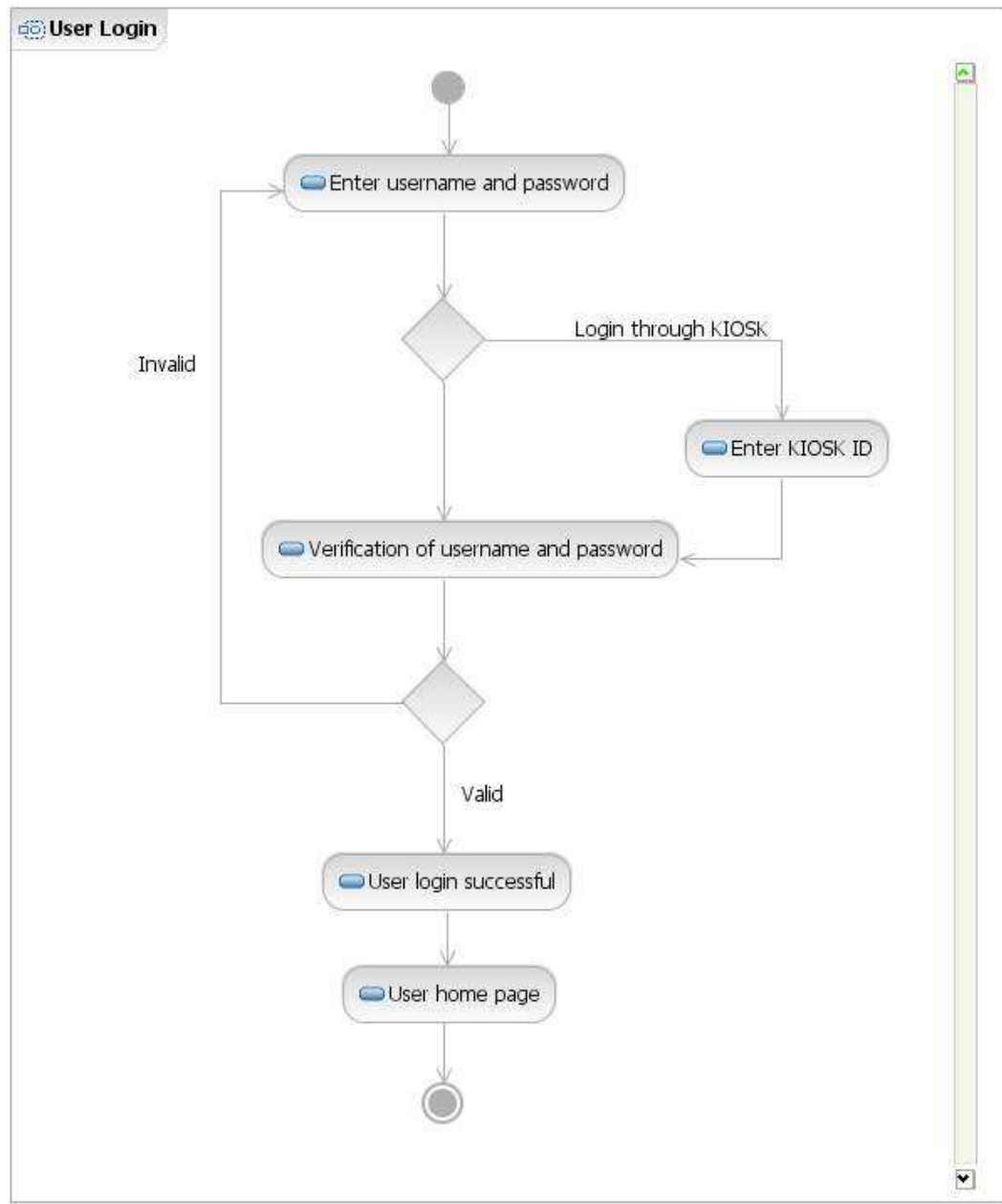


Figure 6 : Activity Diagram Representing User Login

Privileged User Login Activity

Privileged User such as Doctor, Kiosk Manager and Administrator is made to enter the username and password, entered values are verified. If it is a valid username and password, then the user is logged in and assigned the respective privileges, or else they are asked to retry by entering the correct values.

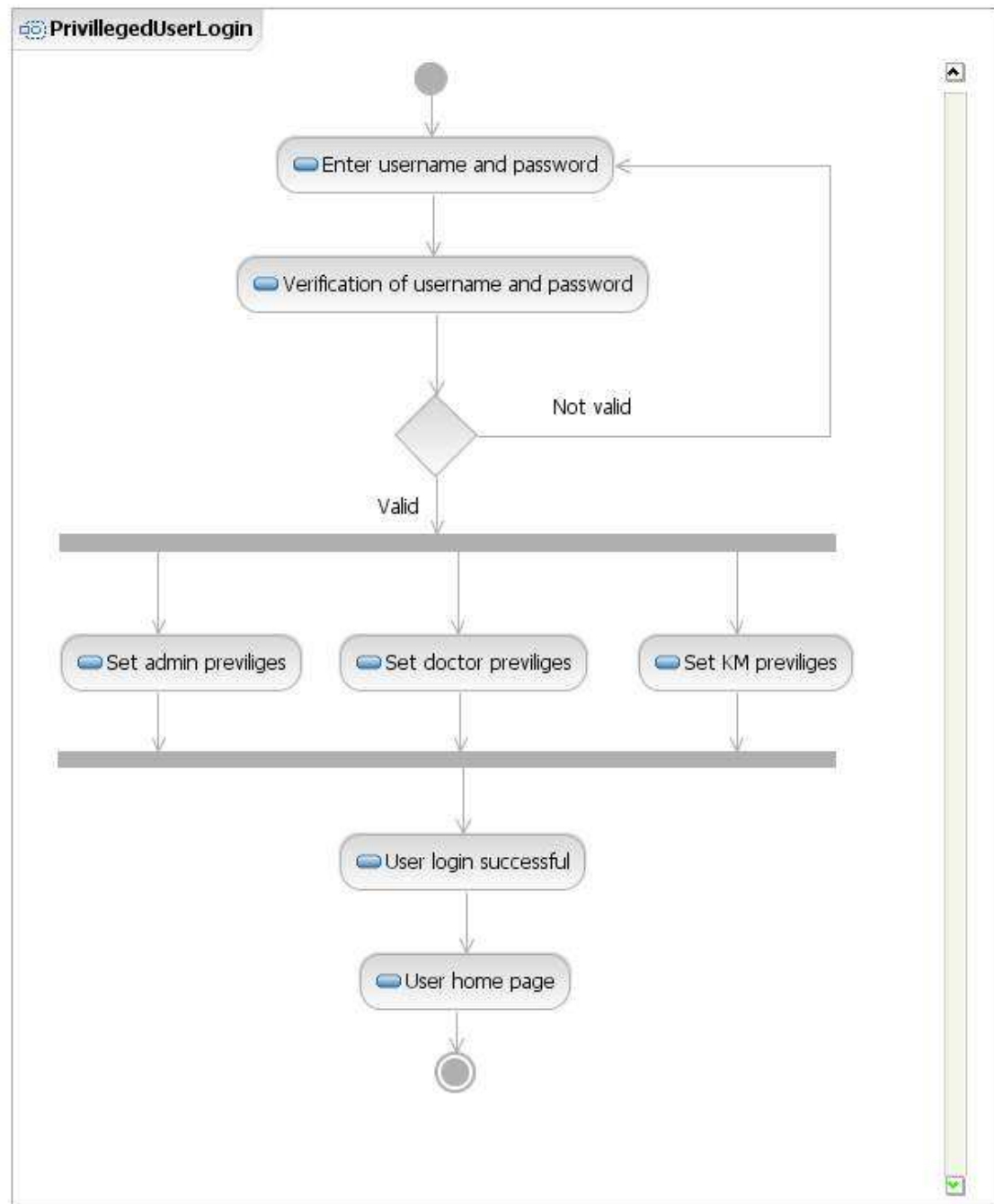


Figure 7 : Activity Diagram Representing Privileged User Login

Take Appointment Activity

The patient will search for a doctor using search option. Then the patient selects a doctor from search results

and enters date and time for an appointment and sends it to the doctor.

Doctor views this request.

Then he can either reject the request or can approve it by sending an appropriate message to patient.

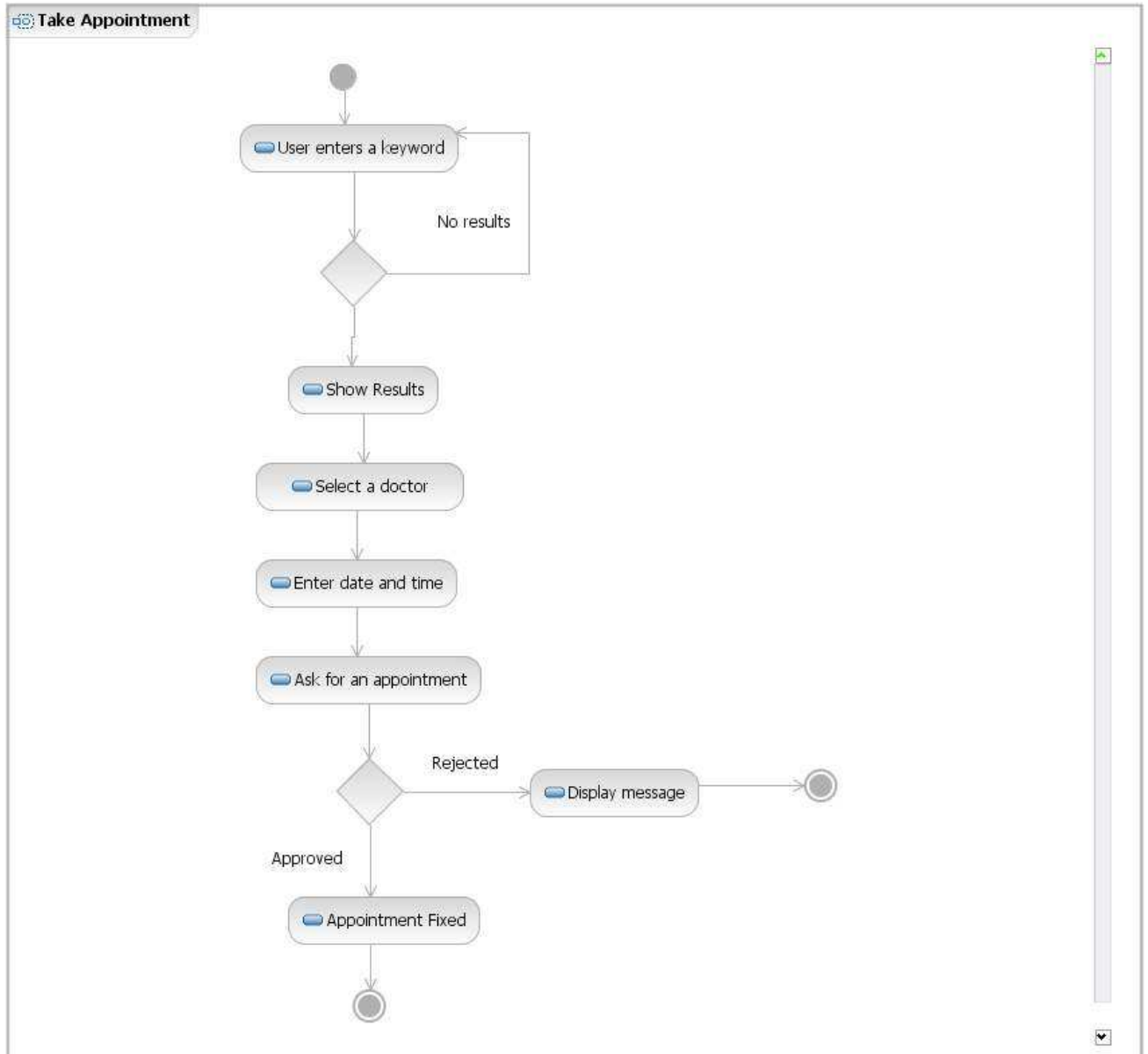


Figure 8 : Activity Diagram For Taking Appointment

Web Camera Interaction Activity

The patient will select a doctor and then if he has an appointment with that doctor, he can directly start web cam interaction session. If the patient does not have appointment, then he should check whether the doctor is busy or available. If the doctor is available, the patient will send a request to doctor. If the doctor accepts the request, the patient can start the interaction session. Finally, patient will close the session.

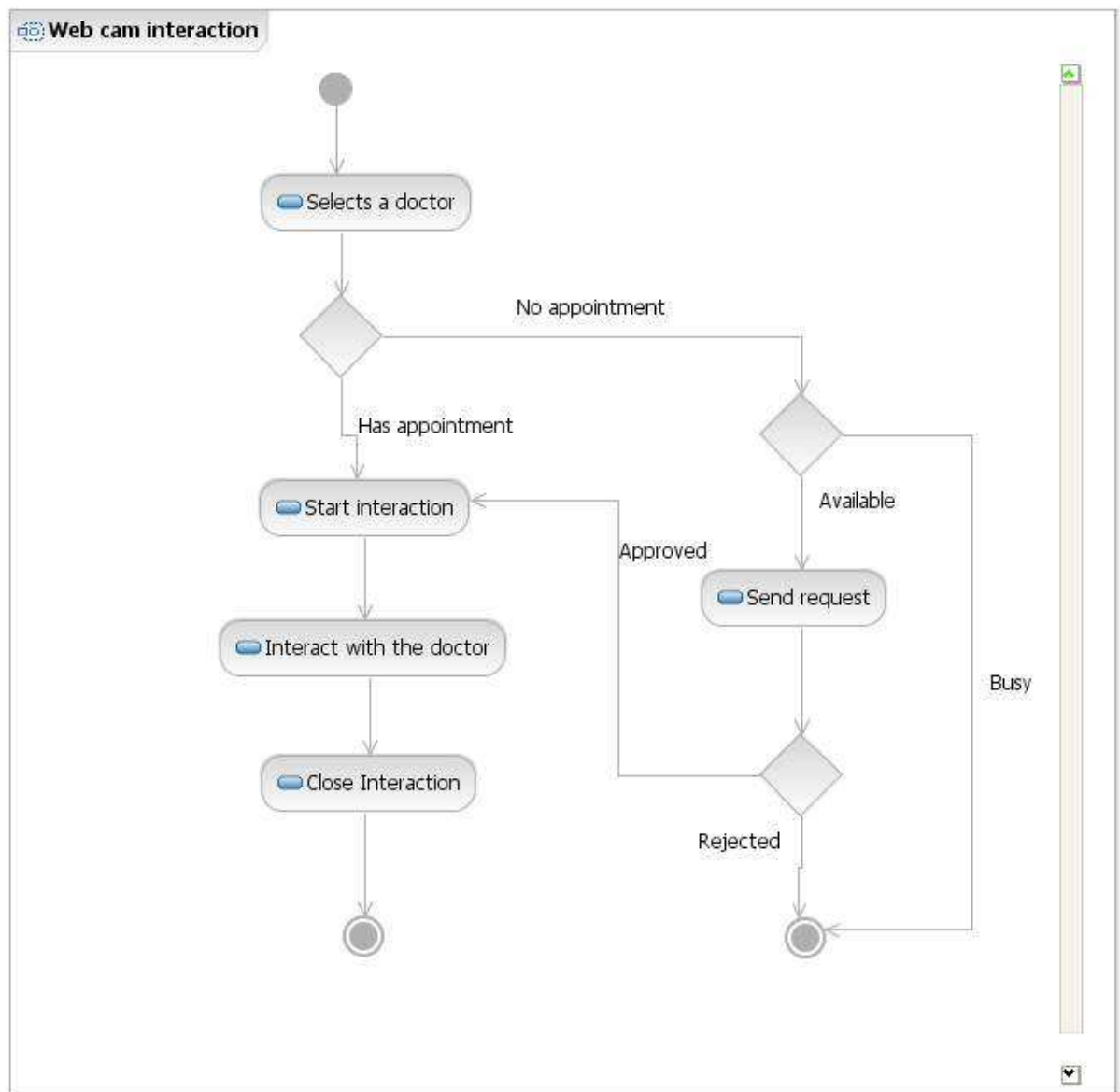


Figure 9 : Activity Diagram Representing Web Cam Interaction

Providing Prescription Activity

The doctor selects a particular patient, then views his/her health record to analyze his/her conditions, symptoms of diseases etc.. And then doctor enters the prescription and send it to the patient.

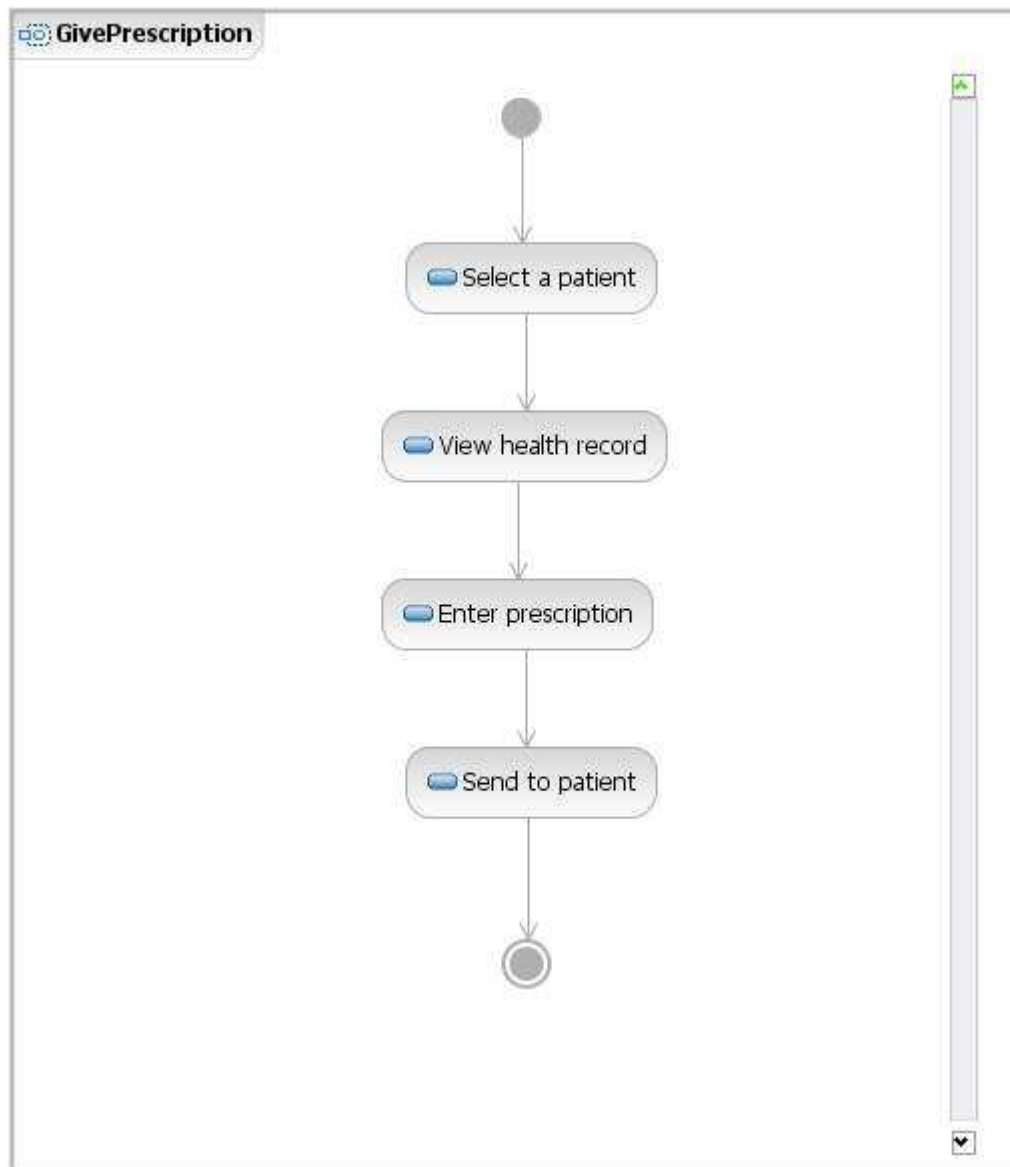


Figure 10 : Activity Diagram For Giving Prescription

Lodging a Complaint Activity

The patient enters the complaint text and sends it to admin and the system generated Complaint_ID is returned to user.

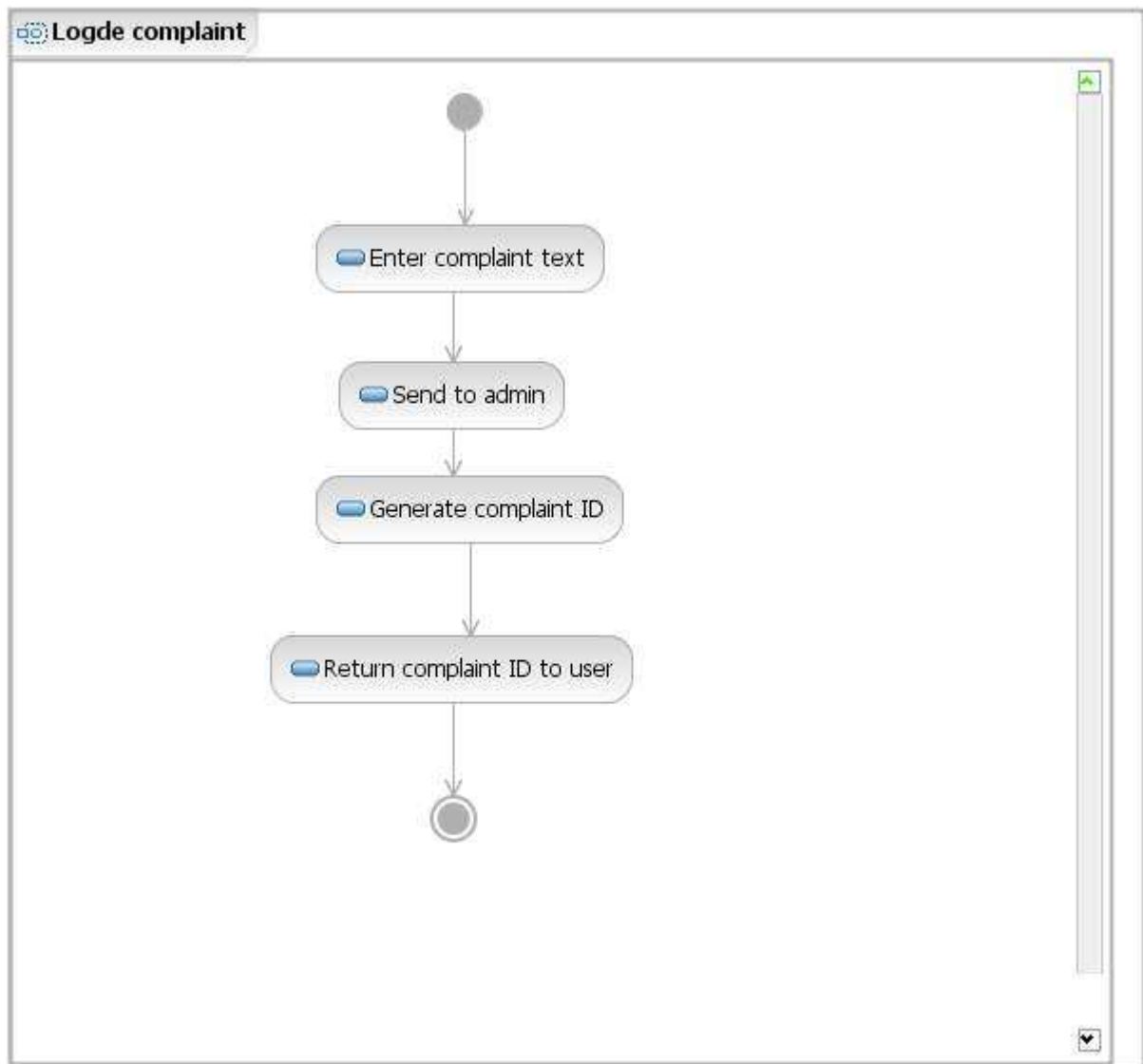


Figure 11 : Activity Diagram For Lodging Complaint

Replying a Complaint Activity

The admin views the complaint and then he may reply to the user or he may select the respective doctor and forwards the complaint to him.

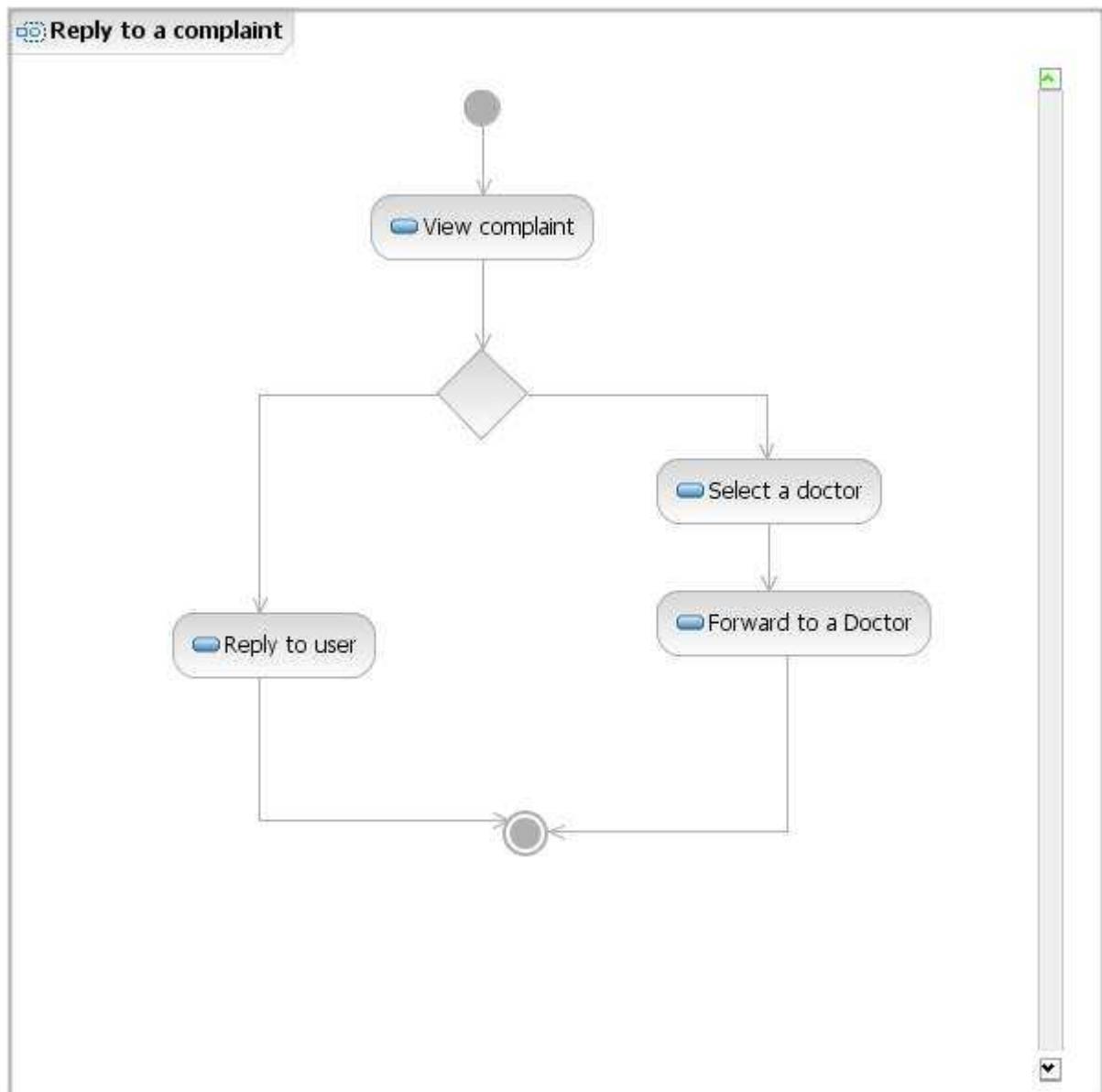


Figure 12 : Activity Diagram For Representing Reply To Complaint

Participating in a Discussion Forum Activity

The system displays all the posts to the users. The user can select a thread from the recent posts and can reply for that post or he/she can create the new post. The user can directly create a new thread and in that he/she can create a new post. The user can also search for a particular topic and can select a thread from the results and can create a new post.

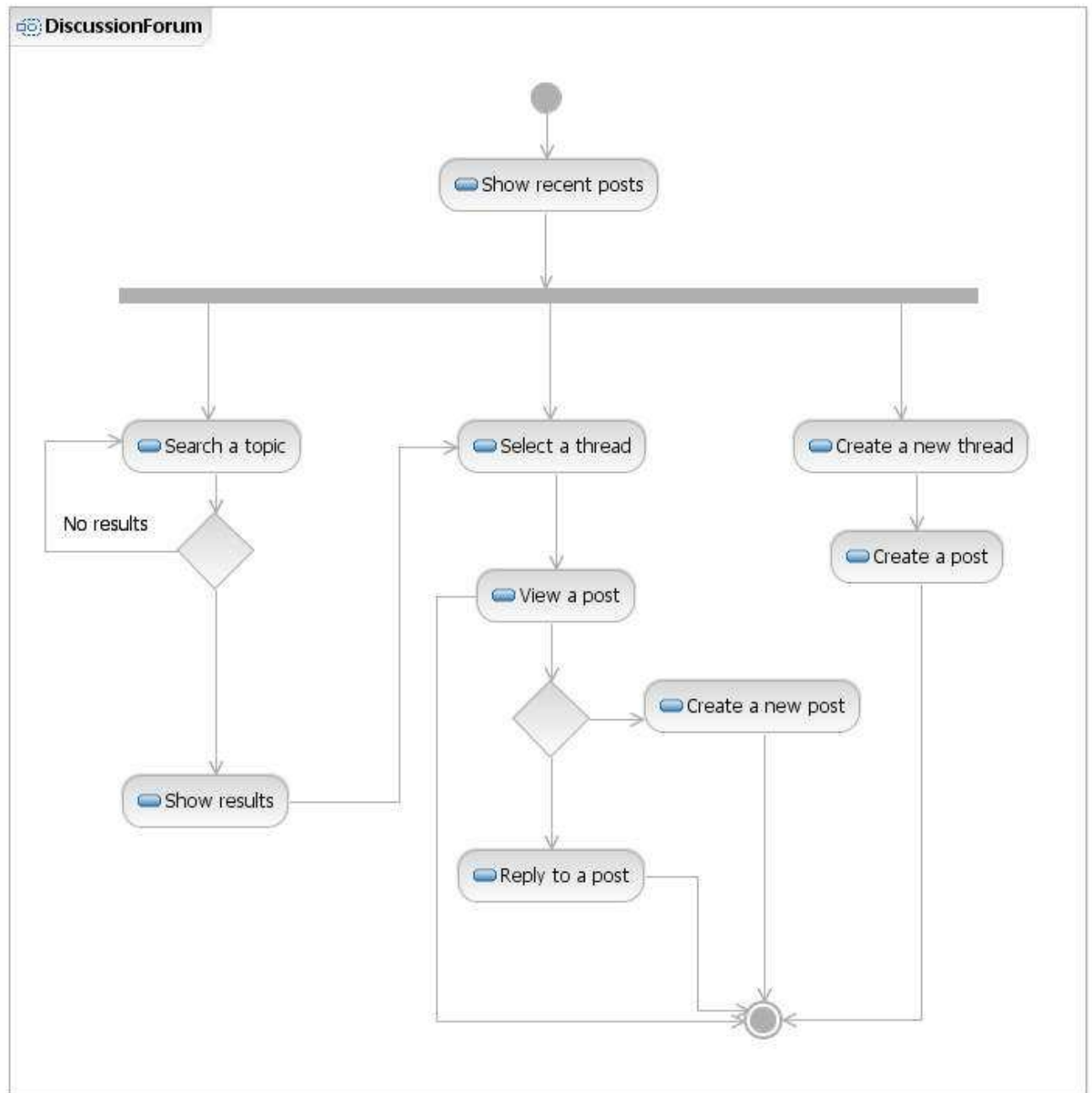


Figure 13 : Activity Diagram Representing Discussion Forum

Sequence Diagrams

Users Login Sequence Diagram

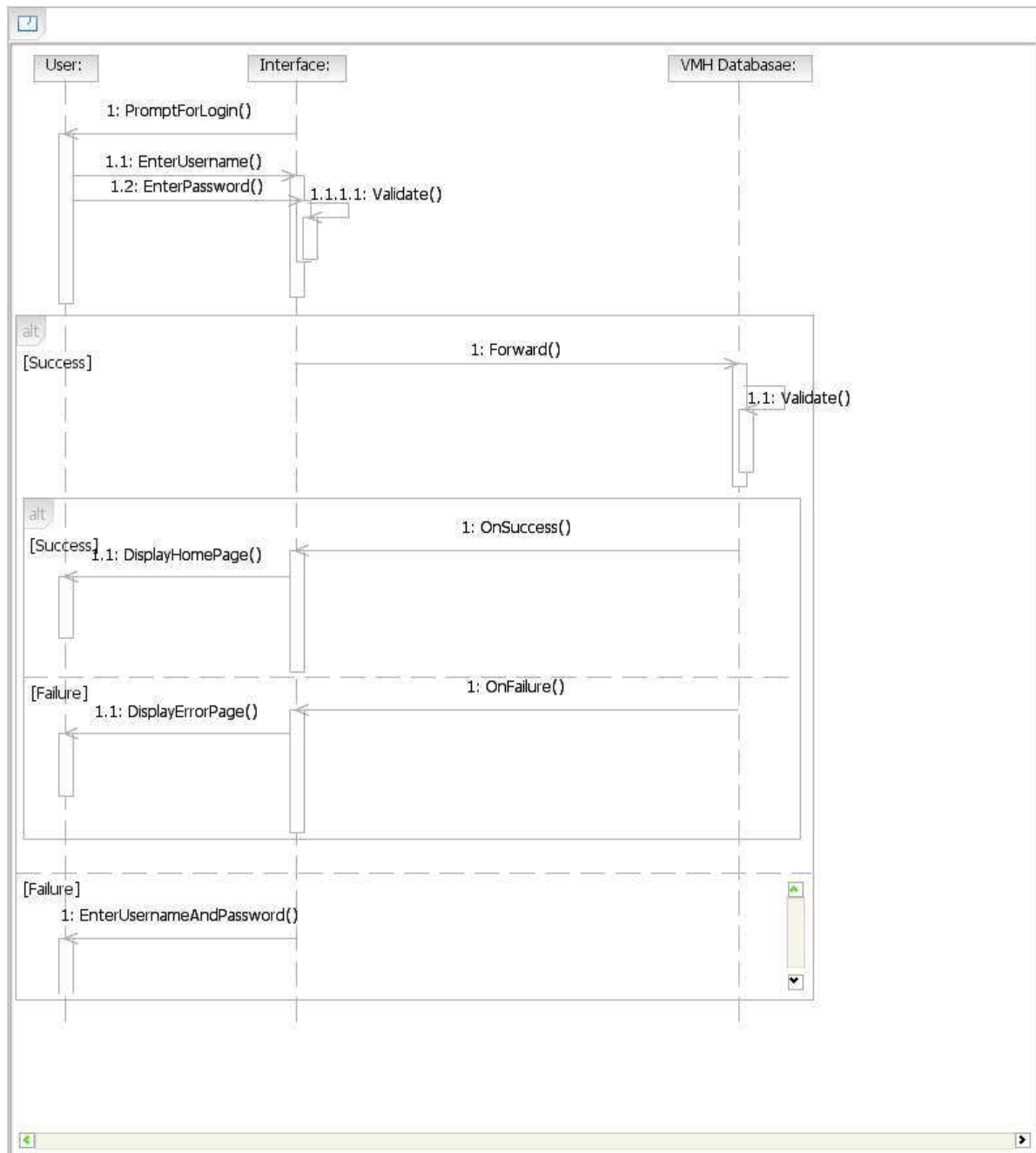


Figure 14 : Sequence Diagram Representing Login Process

Make an Appointment Sequence Diagram

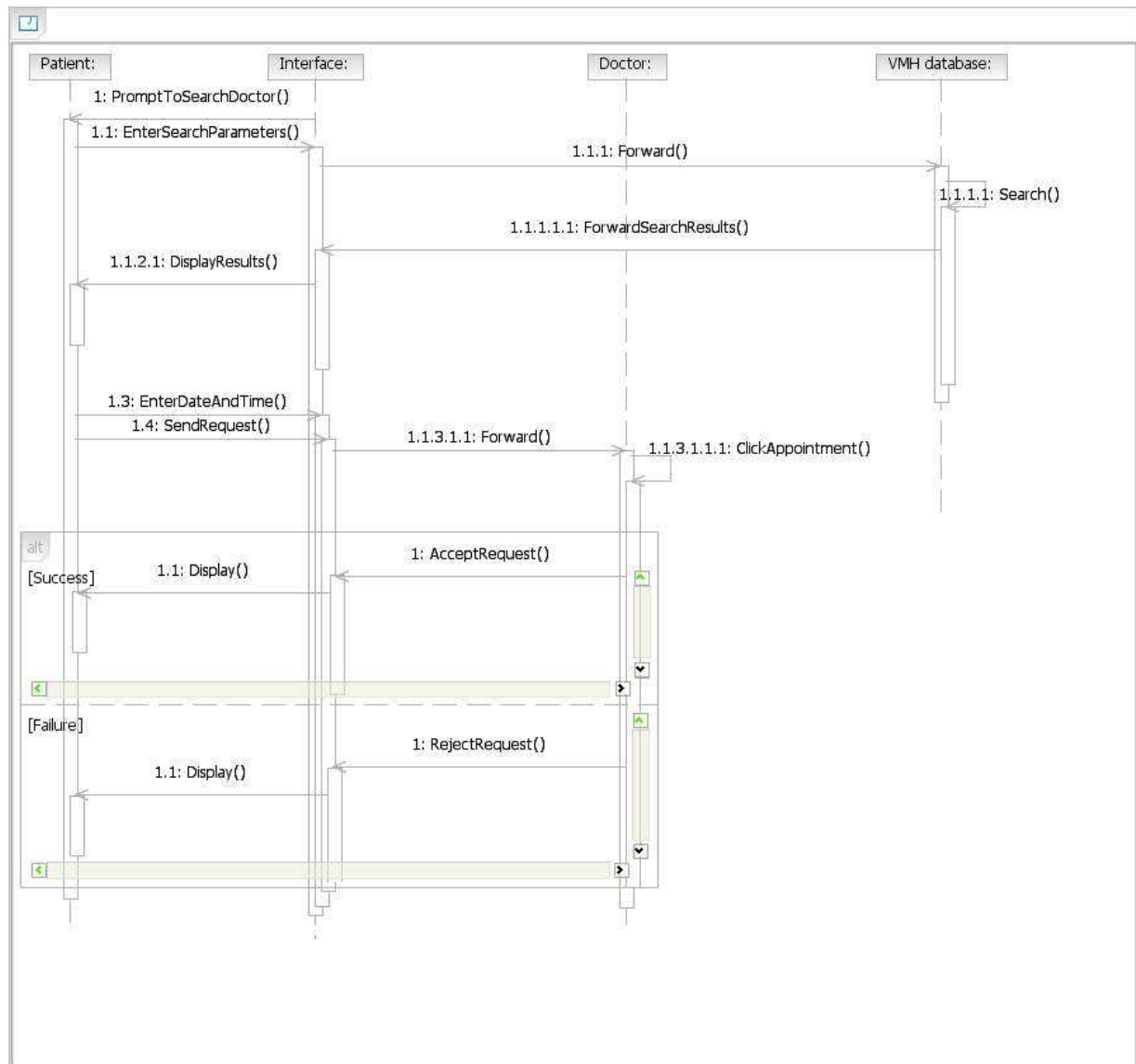


Figure 15 : Sequence Diagram Representing Appointment

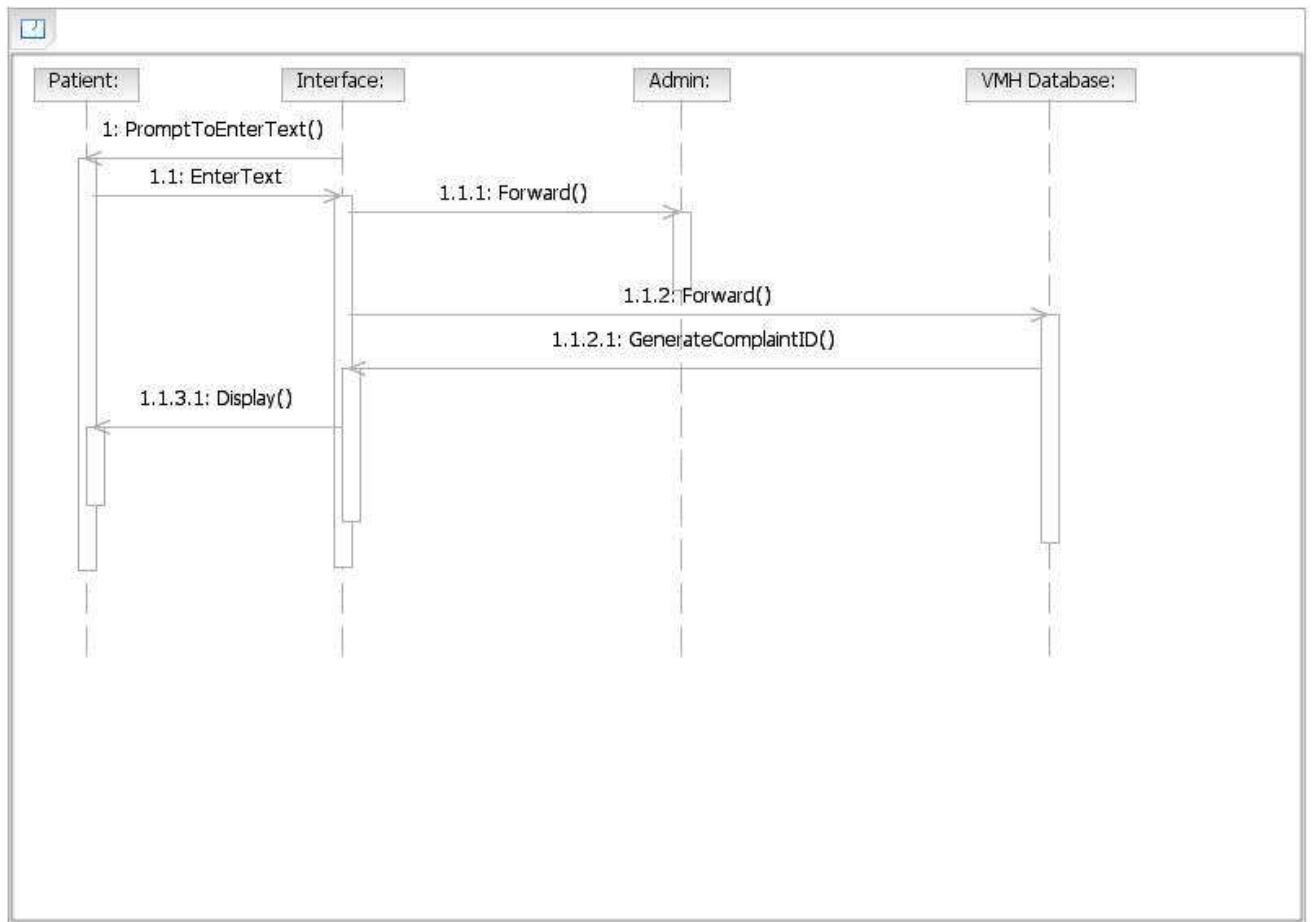
Lodge Complaint Sequence Diagram

Figure 16 : Sequence Diagram for Lodging Complaint

Prescription Sequence Diagram

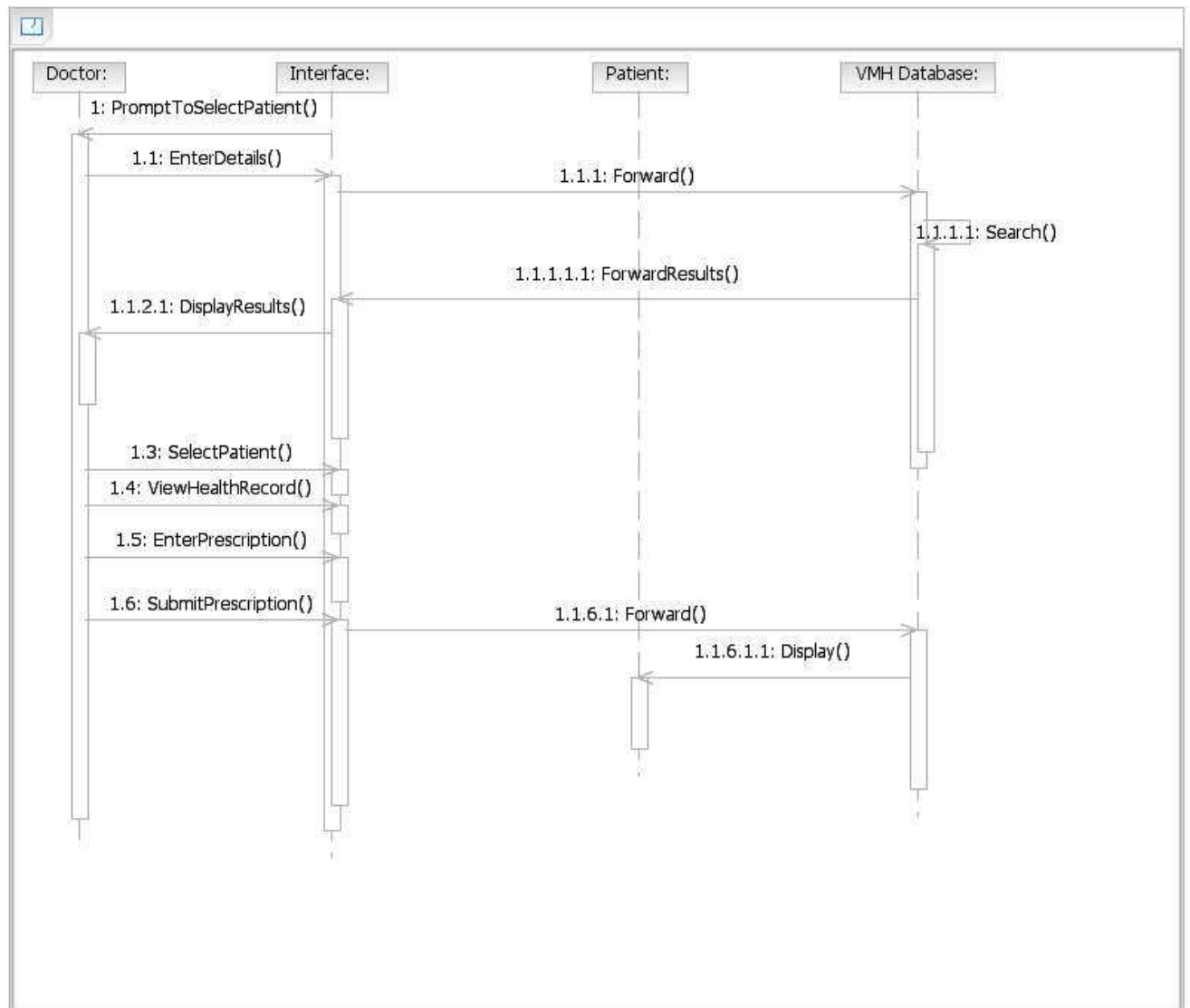


Figure 17 : Sequence Diagram for Prescription

Authentication of Privileged Users Sequence Diagram

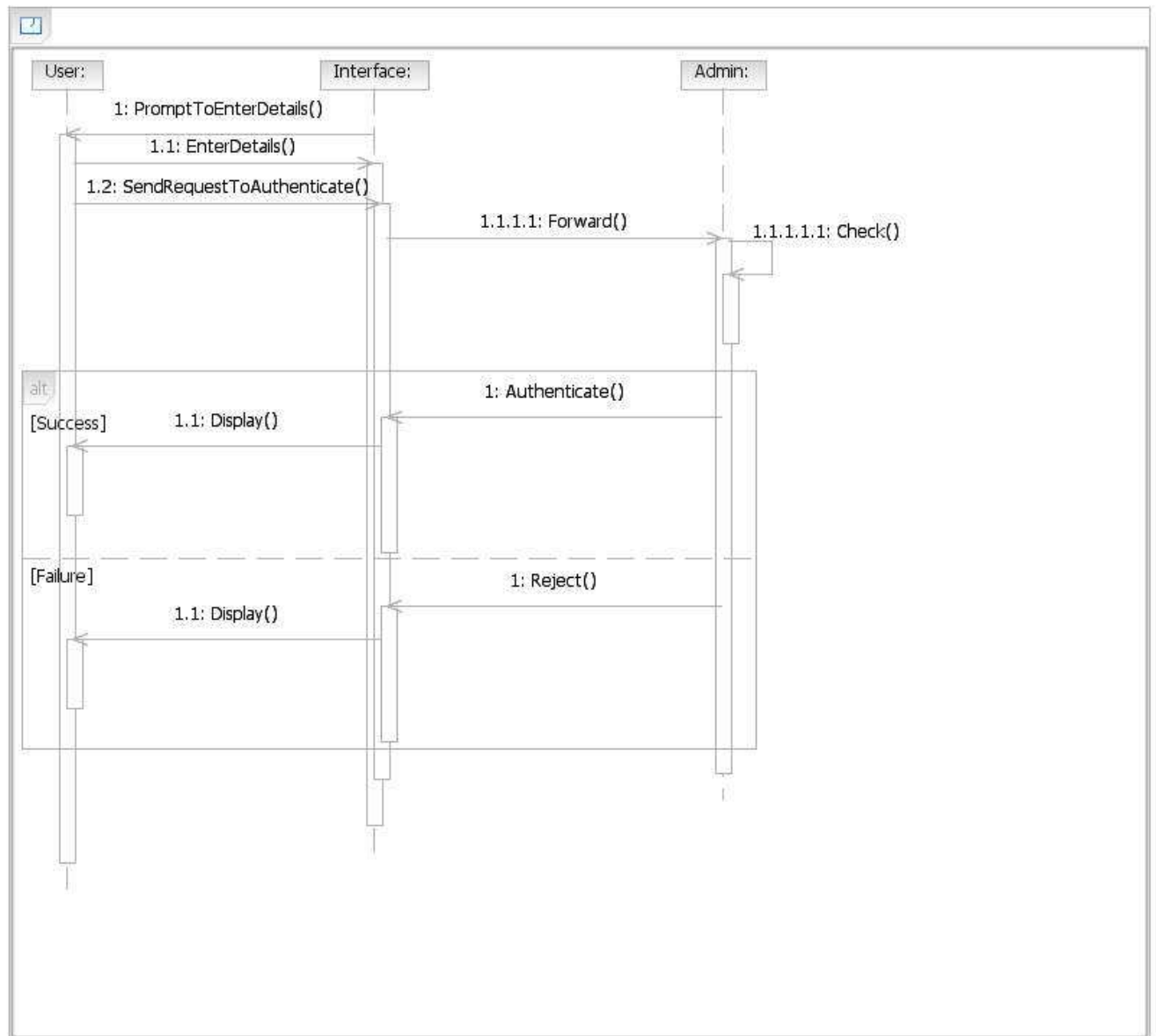


Figure 18:Sequence Diagram for Authentication of Privileged Users

Web Cam Interaction

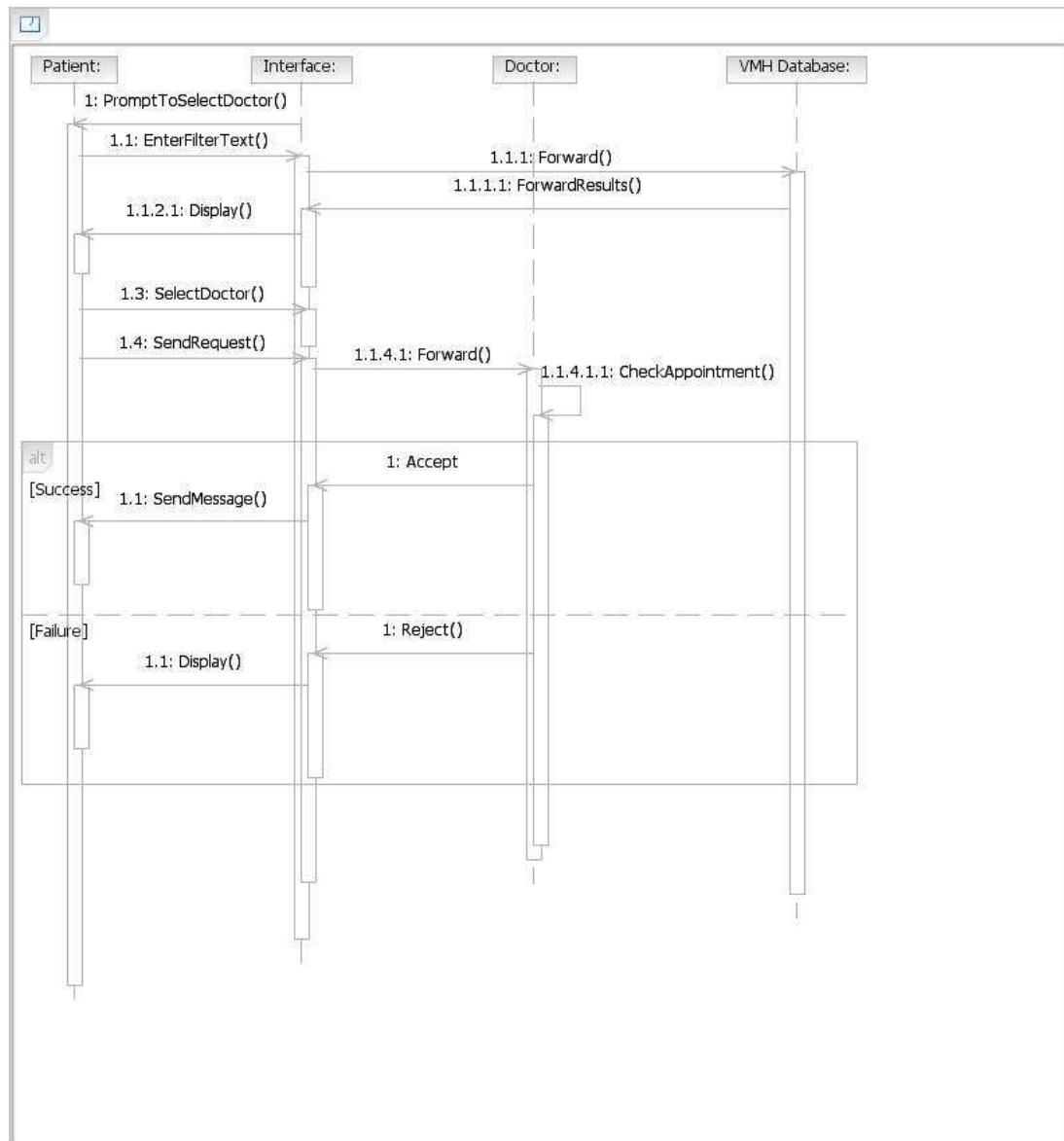


Figure 19:Sequence Diagram Representing Web Cam Interaction

Use Case Reports

Patient use-case report

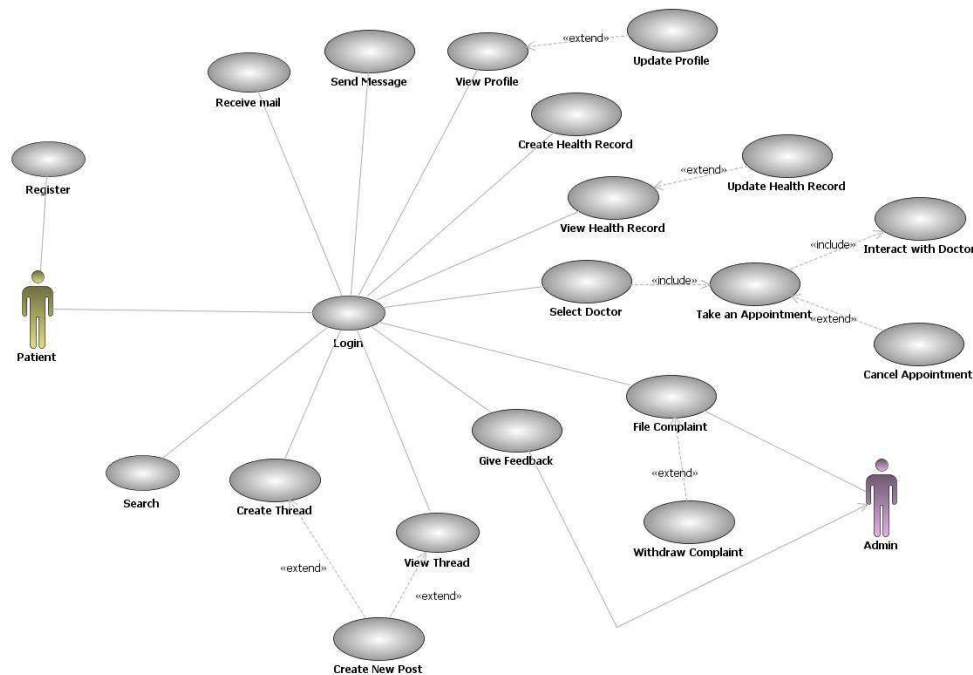


Figure 20 : Use case diagram for patient

USE CASE	DESCRIPTION
SignIn	The patient has to SignIn in order to .
View profile	Every registered patient has his/her own profile containing personal details.
Update profile	The patient has the option to update his/her own profile.
Create health record	The patient can create his/her own health record.
Update health record	The patient can update his/her health record.
Select doctor	The patient can select doctor based on various criteria.
Take an appointment	The patient can request for an appointment to a particular doctor.
Interact with doctor	The patient can interact with doctor .
File complaint	The patient can file complaint on doctor to admin.
Withdraw complaint	The patient has option to withdraw his/her complaint .
View thread	The patient can view already created thread in a discussion forum.
Create thread	The patient can create a new thread in a discussion forum.
Create new post	The patient can create a new post in a newly created or already present thread.
Send Message	The patient can send private message to doctors and admin.
Receive mail	The patient can receive mail.
Search	The patient can search for a particular item in website by entering the keyword.

Doctor use-case report

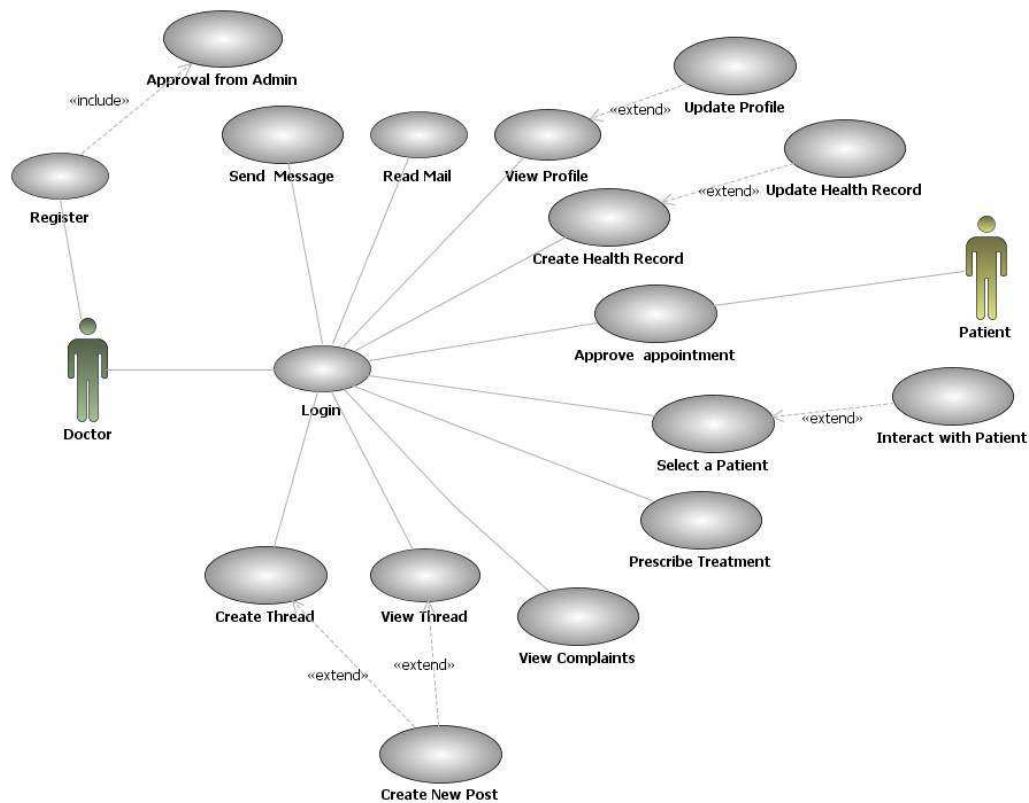


Figure 21: Use case diagram for Doctor

USE CASE	DESCRIPTION
Sign in	The doctor has to Sign In in order to start begin his work.
View profile	Every registered doctor has his/her own profile containing personal and professional details.
Update profile	The doctor has the option to update his/her own profile.
Create health record	The doctor can create health record of a patient.
Update health record	The doctor can make necessary changes to health record.
Acknowledge an appointment	The doctor accept/rejects the request of patient for an appointment.
Select a patient	The doctor selects a patient for further interaction.
Prescribe treatment	The doctor prescribe the treatment for patient.
View complaints	The doctor views the feedback of the admin to the complaints issued to a doctor.
View thread	The doctor can view already created thread in a discussion forum.
Create thread	The doctor can create a new thread in a discussion forum.
Post thread	The doctor can post a new created or already present thread.
Send message	The doctor can send private messages to patients and admin.
Receive mail	The doctor can receive mail.
Search	The doctor can search for a particular item in website by entering the keyword.

Kiosk Manager use-case report

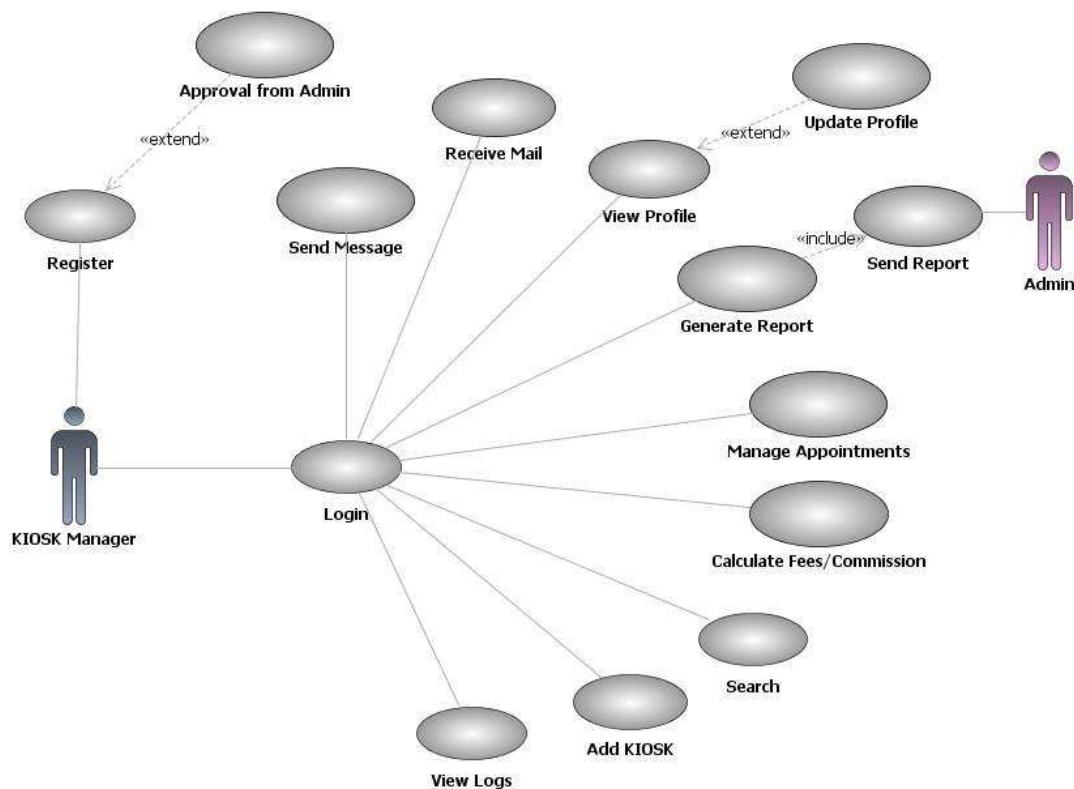


Figure 22 : Use case diagram for Kiosk Manager

USE CASE	DESCRIPTION
Sign in	The Kiosk Manager has to Sign In in order to start begin his work.
View profile	Every registered KM has his/her own profile containing personal and professional details.
Update profile	The KM has the option to update his/her own profile.
Add Kiosk	The KM can add new Kiosk .
Manage appointments	The KM can manage the appointments of doctors and patients .
Calculate fees	The KM can charge fees for patient for using the kiosk.
Views logs	The
Send report	The KM can send report to admin.
Approval from admin	The KM should get approval from the admin .
Send message	The KM can send private messages to patients and admin.
Receive mail	The KM can receive mail.
View thread	The KM can view already created thread in a discussion forum.
Create thread	The KM can create a new thread in a discussion forum.
Create new post	The KM can create a new post in a newly created or already present thread.
Search	The KM can search for a particular item in website by entering the keyword.

Admin use-case report

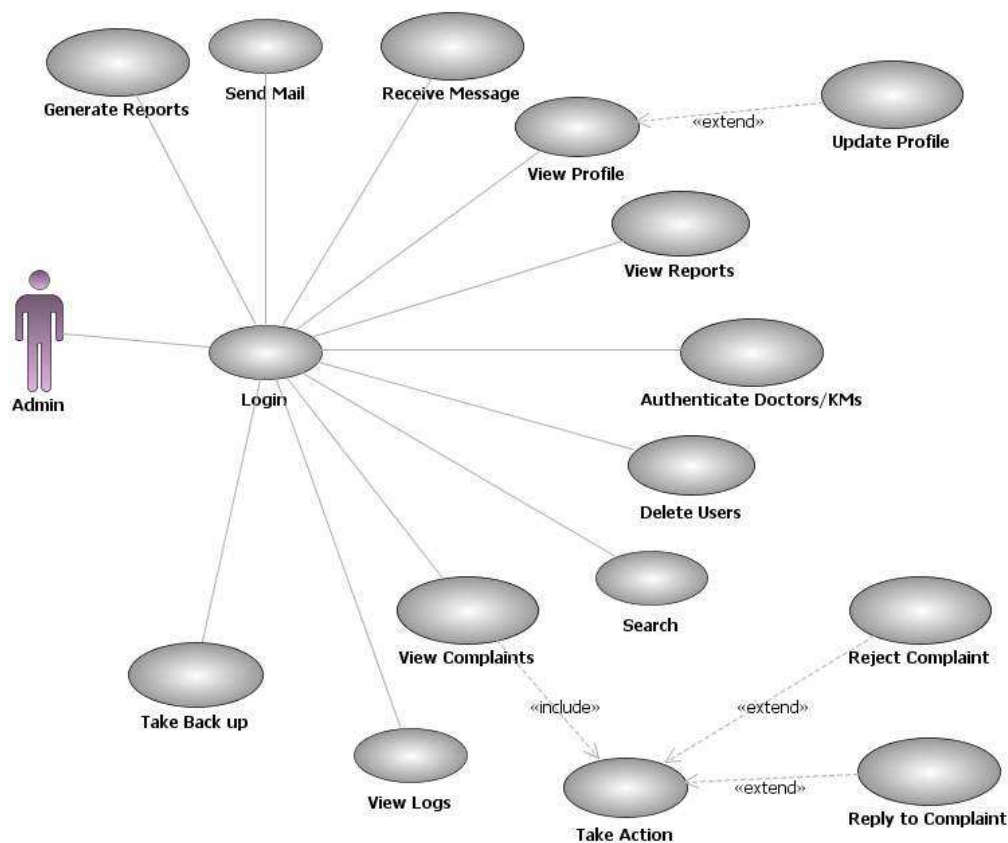


Figure 23 : Use case diagram for Admin

USE CASE	DESCRIPTION
Sign in	The admin has to Sign In in order to start begin his work.
View profile	Admin has his/her own profile containing personal and professional details.
Update profile	The admin has the option to update his/her own profile.
View reports	The admin can view reports sent by KM.
Generate reports	The admin can generate reports.
Authenticate doctor/KM	The admin will authenticate doctors and KM.
View complaint	The admin views the complaint sent by other users.
Take action	The admin can take necessary actions .
Take backup	The admin can take backup of the system.
Delete users	The admin is given the option to delete the users .
Send mail	The admin can send mail.
Receive message	The admin can receive private messages from patients, KMs and doctors.
View thread	The admin can view already created thread in a discussion forum.
Create thread	The admin can create a new thread in a discussion forum.
Post thread	The admin can post a new created or already present thread.
Search	The admin can search for a particular item in website by entering the keyword.

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