CSCI 6628

OBJECT ORIENTED ANALYSIS AND DESIGN

Term project

MY HEALTH CARE

Under The Guidance Of

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VISION STATEMENT FOR MY HEALTHCARE

The goal of the project is to develop a program which helps every individual to keep track of their doctor appointments, prescriptions, and medications. The target users are a person from India, US who age is between 18-60 years. The reason behind limiting the range is that children, old people sometimes won't be aware of their health conditions. The main aim of this program is to organize and keep track of all their medical history in one place. My healthcare enables the user to book an appointment, keeps track of medications. Unlike many programs, my health care provides all the facilities in a single place which reduces the burden for users thus making things easier. Our program is a completely web-based system which can be used on any smart device.

The program should enable the user with the following activities:

➔ **Disease Detection**

The user should feed the symptoms they are suffering from into the program, in response the program will detect the possible disease they are suffering from.

➔ **Doctor suggestion**

According to the possible disease. The program will suggest the user with a doctor who has expertise in that disease.

➔ **Schedule an appointment**

The user will select a preferred doctor in the list of suggested doctors and feed the program with the possible time the user can see the doctor. Then the program makes an appointment with the doctor.

➔ **Appointment reminder**

The program will remind the user about the scheduled appointments and remind them about their visit to the doctor in advance.

➔ **Pharmacy Assistance**

Once the user is done with the doctor's appointment, the user has to upload the prescription to the doctor. Then the program sends the prescription to the pharmacy of the user's choice. Once the medication is prepared, the program reminds the user to pick the medication.

➔ **The program stores the following file information:**

- Patients medical history
- Pharmacy's information
- Doctors information
- Medication information
- Disease information

➔ **What makes our program unique?**

- Provides all the health information in a single place which makes things for the user.
- The program can be used on any device like smartphone, laptop. ● The program is portable i.e., can be used on any operating system.

➔ **Future Scope**

- **Medicine reminder**

The program reminds the user to take medicine from time to time. If the user runs out of prescription, the program reminds the user.

PRODUCT BACKLOG

As a healthcare admin, I want to a user interface where the customer should be able to do the following:

- If the customer is new, then the customer should be able to sign up, create a username and password for themselves and should be able to enter the following information like Name, Date of birth, Gender, Address, phone number, primary contact person name, phone number, country.
- If the customer is already an existing user, then the customer should be able to enter his username and password. If they match, they can sign in.
- If they don't match, I want to display a message saying incorrect username or password. As a healthcare customer, I want an implementation in which the customer can enter the following details like previous medical history, Allergies, body temperature, Blood pressure level, Blood oxygen level and if there are any other symptoms, they should be able to enter it.
- As a healthcare customer, I want an implementation in which the customer will get a list of recommended doctors nearby.
- As a healthcare doctor, I want to be able to access all the medical history of patients.
- As a healthcare admin, I should be able to add or delete from the list of doctors and pharmacies.
- As a healthcare customer, I want an implementation in which the customer can make an appointment with the doctor.
- As a healthcare customer, I want an implementation in which the customer should be reminded of the appointment.
- As a healthcare customer, I want an implementation Where the customer should be able to upload his prescription to the pharmacy of their choice from the suggested list of pharmacies.
- As an implement customer, I want an implementation in which the customer should be reminded to pick the medication.

	ITEM NUMBER	STORY	ESTIMATION	PRIORITY
Sprint -1	1	As an admin I want to create a customer interface where the healthcare customer can sign up and sign in.	4	1
	2	As a healthcare customer I want to sign up/sign in into my account.	1	2
	3	As an administrator, If the healthcare customer's username and password match, I want to allow them to login else I want to display a message saying incorrect password or username.	2	3
	4	As a healthcare customer I want to enter the Blood pressure, Blood oxygen level, Body temperature, previous medical history, Allergies, and other symptoms they are facing.	3	4
Sprint-2	5	As a healthcare Admin I want to display the list of doctors who are close by/available and modify the list if needed.	3	5
	6	As a healthcare customer I want to be able to access the list of doctors.	2	6
	7	As a healthcare customer I want to choose one of the doctors from the suggested list.	3	7
	8	As a healthcare customer I want to allow customers to book an appointment with choose doctor.	4	8
	9	As a doctor I want to be able to look at a patient's symptoms, previous medical history.	2	9
	10	As a healthcare admin I want to Remind the customer about the appointment.	3	10

Sprint-3	11	As a healthcare admin I want to display the list of pharmacies that are close and nearby and modify them if needed.	3	11
	12	As a healthcare customer I want to choose one the pharmacies and send prescription, insurance details to them	4	12
	13	As a healthcare admin I want to remind the customer to pick up the medications.	3	13
			Total = 37	

FULLY DRESSED USE CASES

As per our project backlog of My Healthcare application, the expected project flow is as following:

1. My Healthcare customer finds the signup/sign in page:
    a. Considering the customer is new:
    The customer must enter details like name, age, gender, country. If the customer is either from India/ US and the customer age is between 18-60 then the application will take the customer to the new page or else, it displays an error message which says the customer is not eligible.

    In the next step (Assuming the customer is from India/US and has age between 16-60), The customer must enter the details about previous medical history, allergies if any. With this step, the signup process is completed and the customer signs in.
    b. Considering the customer is already signed up:
    The customer enters the username and password. If the username and password match the customer will be taken to the next page.

2. The customer will be taken to a symptom entering page, where the customer has to enter the symptoms, they are suffering from along with some basic information like body temperature, blood pressure, allergies if they have any.

3. The customer will be directed to a page where the customer must enter insurance information which further helps doctors, pharmacists to claim the bill.

4. Then the customer will be directed into the doctor and pharmacy selection page, which contains the basic information of the doctor like name, hospital address, qualification, experience, success rate, ratings, pharmacist details and address.
5. Once the customer selects the doctor, pharmacy, The customer must book an appointment by selecting the time slots when both doctor and customer will be available to meet.
6. Once the appointment is booked, an appointment confirmation message will be displayed.
7. Application sends a reminder prior 5 hours of appointment to the customer, doctor to remind about the appointment.
8. Due to any reasons if the doctor and customer couldn't meet then:
    a. My Health Mart provides its customers, with an option the rebook the appointment.
    b. My Health Mart provides its customers an option to cancel and reschedule the appointments.
9. (Assuming the doctor and customer met) The doctor will check the patient and write necessary medications for the customer's health problem.
10. The customer will now upload those prescriptions into the My Healthcare application.
11. These prescriptions are accessed by the pharmacy and medications will be prepared by the pharmacist.
12. The pharmacist will then update the status of medications when they are ready in My Healthcare.
13. The customer will then get a message from My Healthcare saying that medications are ready.
14. (Assuming insurance covers all the bills) The customer will then go and get the medications from the pharmacy.

This is the expected project flow of My Healthcare application. According to this, we will be having 14 use cases in the project.

Let's look at each use case individually and clearly.

USE CASE 1

USE CASE I. I: CUSTOMER IS NEW

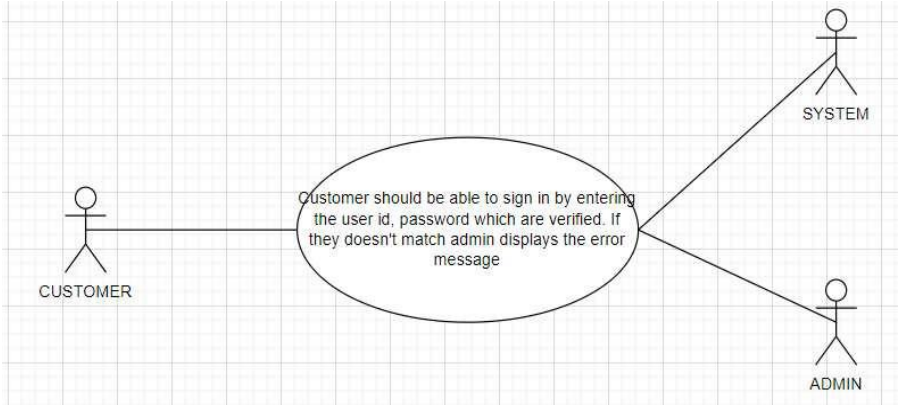
USE CASE	**COMMENTS**
Use case name	Signing up customer for the first time
SCOPE	Customer is new to MY Healthcare application
LEVEL	Customer, system
PRECONDITIONS	Customer should have access to the My Healthcare Application
PRIMARY ACTOR	Customer, system
STAKEHOLDERS AND INTERESTS	Customer: Customer should be able to sign up into the My Healthcare application. System: Help the customer signup.
SUCCESS GUARANTEE	Customer successfully sign up into My Healthcare application
MAIN SUCCESS SCENARIO	Customers should be able to sign up into my health care application.
EXTENSIONS	Customer is not from India/ US. Customer's age is not between 18-60.

USE CASE 1.2:

USE CASE	**COMMENTS**
Use case name	Signing in of customer
SCOPE	Customer is logging in to MY Healthcare application
LEVEL	Customer, system
PRECONDITIONS	Customer should sign up into the application
PRIMARY ACTOR	Customer, system
STAKEHOLDERS AND INTERESTS	Customer: Customer should be able to sign in into the My Healthcare application. System: Help the customer sign in.
SUCCESS GUARANTEE	Successful customer login into My Healthcare.
MAIN SUCCESS SCENARIO	Customers should be able to sign in into my health care application.
EXTENSIONS	Wrong user id/password

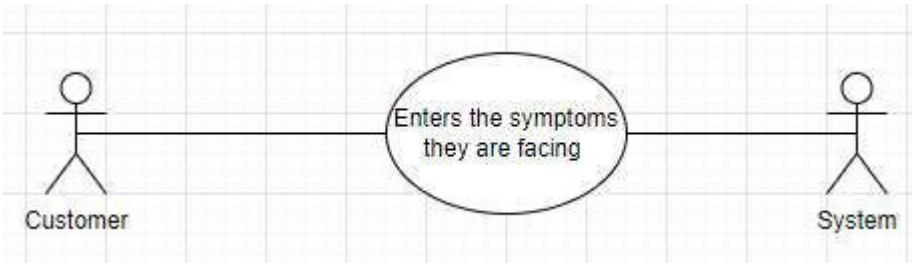
USE CASE 2

USE CASE	COMMENTS
Use case name	Allowing the customer to sign in
SCOPE	Customer can login into My Health care
LEVEL	Customer, system, Admin
PRECONDITIONS	Customer should be sign up successfully
PRIMARY ACTOR	Customer, system, Admin
STAKEHOLDERS AND INTERESTS	Customer: Customer should be able to enter the correct user id, password. System: Should be able to sign in the customer if the user id, password entered by the customer are correct. Admin: Should be able to verify the customers user id, password, if correct should enable them to sign in else display error message.
SUCCESS GUARANTEE	Customers will be able to sign in into My Healthcare.
MAIN SUCCESS SCENARIO	Customers will successfully Login into My Healthcare.
EXTENSIONS	Incorrect user or password.



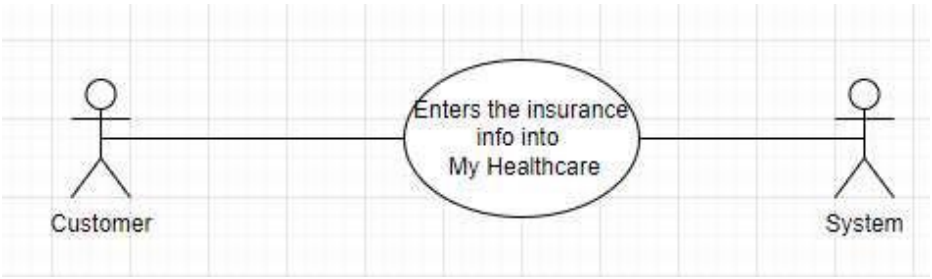
USECASE 3

USE CASE	COMMENTS
Use case name	Entering the symptoms
SCOPE	Customer enters the symptoms into the application.
LEVEL	Customer, system
PRECONDITIONS	Customer should be able to login successfully
PRIMARY ACTOR	Customer, system
STAKEHOLDERS AND INTERESTS	Customer: Customer should be able to enter the disease symptoms into the system System: Should be able to take the symptom inputs from the customer
SUCCESS GUARANTEE	Customers will be able to enter their symptoms into My Health care
MAIN SUCCESS SCENARIO	Customers will successfully enter the symptoms into My Healthcare.
EXTENSIONS	Errors in input symptoms entry.



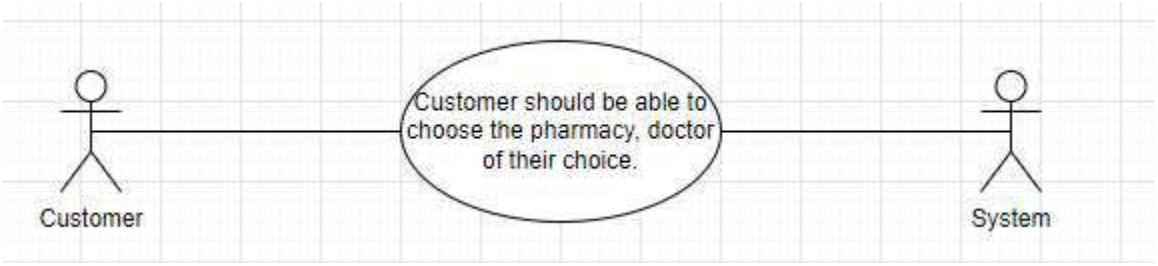
USECASE4

USE CASE	COMMENTS
Use case name	Entering the Insurance information
SCOPE	Customer enters the insurance info into the application.
LEVEL	Customer, system
PRECONDITIONS	Customers should have insurance.
PRIMARY ACTOR	Customer, system, pharmacist, doctor
STAKEHOLDERS AND INTERESTS	Customer: Customer should be able to enter their insurance info into the system System: Should be able to take the insurance info from the customer Doctor: Should be able to access the patient's insurance info to claim bills Pharmacist: Should be able to access the patient's insurance info into the system.
SUCCESS GUARANTEE	Customers will be able to enter their insurance info into My Health care
MAIN SUCCESS **SCENARIO**	Customers can now successfully enter their Insurance Info into My Healthcare.
EXTENSIONS	Errors in the entered Insurance data.



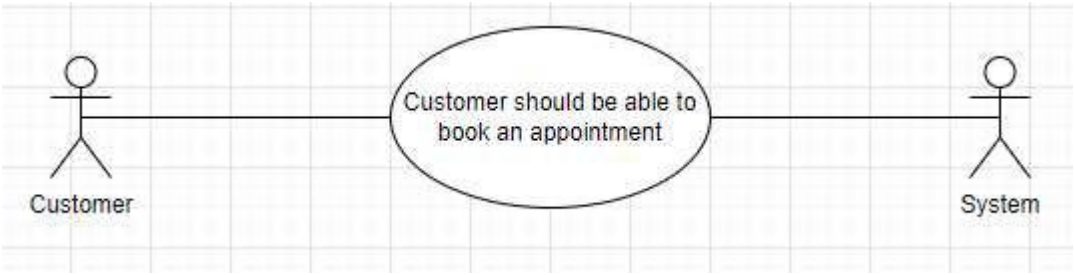
USE CASE 5

USE CASE	COMMENTS
Use case name	Choosing Doctor, pharmacy of customer's choice.
SCOPE	Customer Chooses doctor, pharmacy from My Healthcare.
LEVEL	Customer, system
PRECONDITIONS	Customers should be able to access the list of doctors and pharmacies in My Healthcare application
PRIMARY ACTOR	Customer, system
STAKEHOLDERS AND INTERESTS	Customer: Customers should be able to select the doctor, pharmacy of choice from the list in My Healthcare application. System: Should be able display a list of doctors, pharmacies and should be able to take input given from customers.
SUCCESS GUARANTEE	Customers will be able to select the doctor, pharmacy of their choice from the list.
MAIN SUCCESS SCENARIO	Customers can now successfully enter choose the doctor, pharmacy of their choice from My Healthcare Application.
EXTENSIONS	Customer's choice of doctor, pharmacy not found in the list.



USE CASE 6

USE CASE	COMMENTS
Use case name	Booking an appointment with the doctor.
SCOPE	Customer will book an appointment with the doctor.
LEVEL	Customer, system
PRECONDITIONS	Doctor, pharmacies of choice are already chosen by customers.
PRIMARY ACTOR	Customer, system
STAKEHOLDERS AND INTERESTS	Customer: Customers should be able to book an appointment. System: Allow the customer to book an appointment when a doctor of choice is available.
SUCCESS GUARANTEE	Customers will be able to book an appointment with the doctor.
MAIN SUCCESS SCENARIO	Customers can now successfully book an appointment with the doctor in My Healthcare Application.
EXTENSIONS	Customer's choice of doctor is not available for appointment.

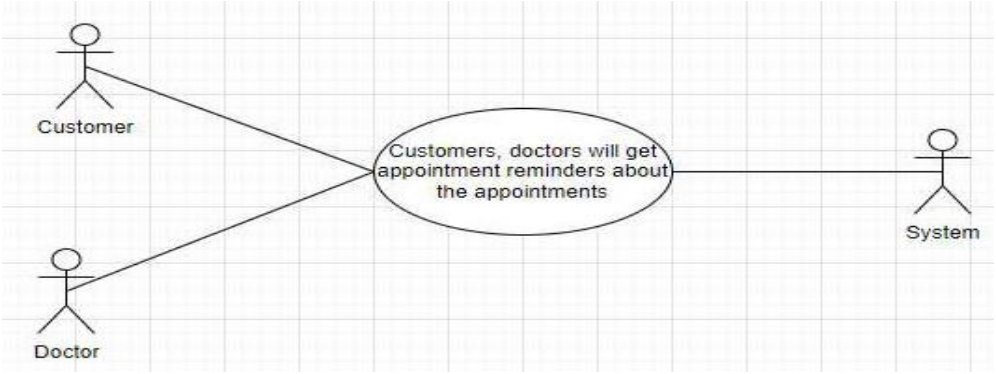


USECASE7

USE CASE	COMMENTS
Use case name	Displaying the appointment confirmation message
SCOPE	Customers will know about appointment status.
LEVEL	Customer, system
PRECONDITIONS	Customer tried to book an appointment with the doctor
PRIMARY ACTOR	Customer, system
STAKEHOLDERS AND INTERESTS	Customer: Customers should be able to book an appointment. System: Let the customers know whether appointment is booked or not by displaying a message
SUCCESS GUARANTEE	Customers will be able to know about their appointment status with the doctor.
MAIN SUCCESS SCENARIO	Customers can now successfully know their appointment status with the doctor in My Healthcare Application.
EXTENSIONS	The appointment is not confirmed. The system may crash without displaying any message.

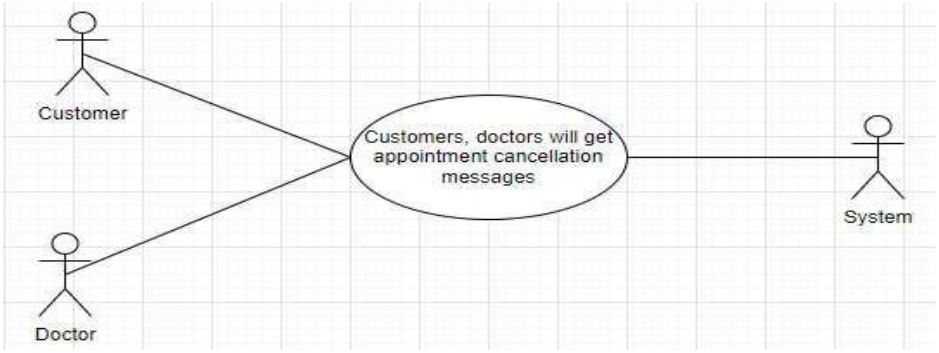
USE CASES 8

USE CASE	COMMENTS
Use case name	Reminding user, doctor about the appointment
SCOPE	Customers, doctors will get a reminder message from the application.
LEVEL	Customer, doctor, system
PRECONDITIONS	Customer has an appointment with the doctor.
PRIMARY ACTOR	Customer, doctor, system
STAKEHOLDERS AND INTERESTS	Customer: Customers should be able to get a reminder message from the application about the doctor appointment. Doctor: Doctors should be able to get a reminder message from the application about the customer's appointment. System: remind the customers, doctors about the appointment.
SUCCESS GUARANTEE	Customers, doctors will be able to receive a reminder about appointments.
MAIN SUCCESS SCENARIO	Customers, Doctors can now successfully get their appointment reminders My Healthcare Application.
EXTENSIONS	The system may crash without sending any message. The application doesn't have customer, doctor details to send reminders.



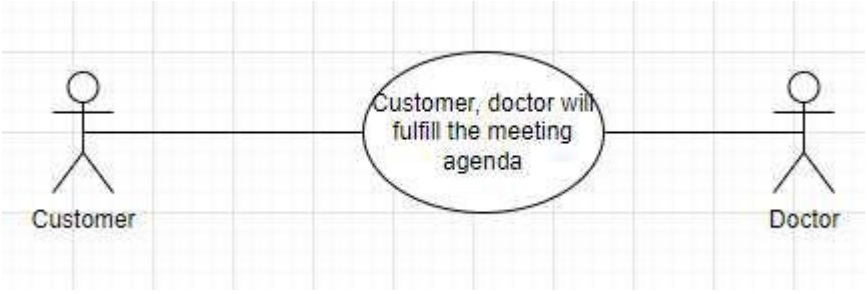
USECASE9

USE CASE	COMMENTS
Use case name	Canceling the appointment
SCOPE	Customers, doctors can cancel appointment
LEVEL	Customer, doctor, system
PRECONDITIONS	Customer has an appointment with the doctor.
PRIMARY ACTOR	Customer, doctor, system
STAKEHOLDERS AND INTERESTS	Customer: Customers should be able to cancel the doctor appointment. Doctor: Doctors should be able to cancel the customer's appointment. System: remind the customers, doctors about the appointment cancellation.
SUCCESS GUARANTEE	Customers, doctors will be able to receive a reminder about appointment cancellation.
MAIN SUCCESS SCENARIO	Customers, Doctors can now successfully get their appointment cancellation reminders My Healthcare Application.
EXTENSIONS	The system may crash without sending any message. The application doesn't have customer, doctor details to send reminders.



USE CASE 10

USE CASE	COMMENTS
Use case name	Checking and writing prescriptions for the patient.
SCOPE	Customers, doctors should be able to access the prescriptions
LEVEL	Customer, doctor
PRECONDITIONS	Customer has visited the doctor for appointment
PRIMARY ACTOR	Customer, doctor
STAKEHOLDERS AND INTERESTS	Customer: Customers should go to the doctor for their checkup. Doctor: Should check the patients and write prescriptions .
SUCCESS GUARANTEE	Customer, doctor has fulfilled the appointment agenda.
MAIN SUCCESS SCENARIO	Customers can now get their checkup and prescriptions from the doctors using My Healthcare application.
EXTENSIONS	Disease is wrongly diagnosed. Prescriptions went missing.

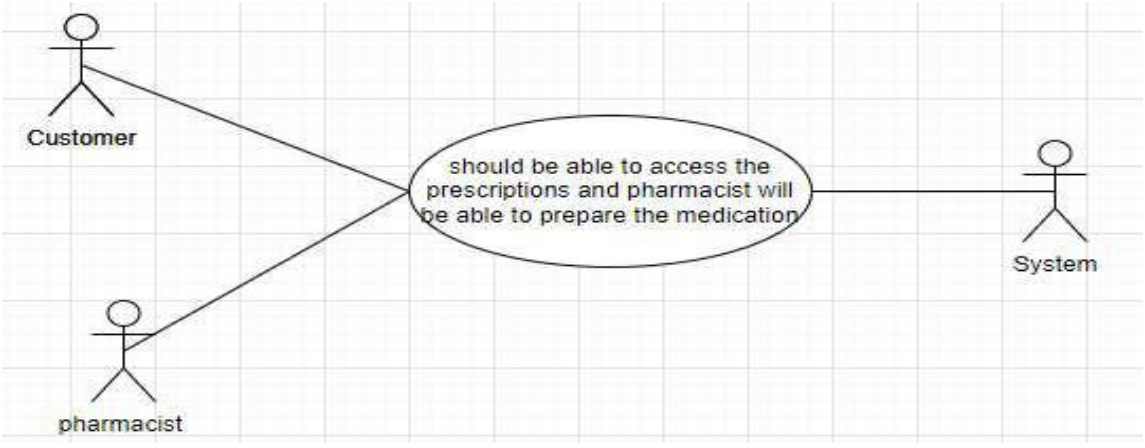


USE CASE 11

USE CASE	COMMENTS
Use case name	Uploading the prescriptions into My Healthcare
SCOPE	Customers should be able to upload the doctors prescriptions
LEVEL	Customer, system
PRECONDITIONS	Customer has the doctor's prescription
PRIMARY ACTOR	Customer, system
STAKEHOLDERS AND INTERESTS	Customer: Customers should be able to upload their prescriptions into My Healthcare application. System: should be able to store the prescriptions uploaded by the customer.
SUCCESS GUARANTEE	Customer has uploaded the prescriptions.
MAIN SUCCESS SCENARIO	Customers can now successfully upload their prescriptions from the doctors into My Healthcare application.
EXTENSIONS	Prescriptions went missing.

USE CASE 12

USE CASE	COMMENTS
Use case name	Accessing the prescriptions by pharmacist
SCOPE	Pharmacists should be able to access the prescriptions uploaded.
LEVEL	Customer, pharmacist, system
PRECONDITIONS	Customer has already uploaded the prescriptions.
PRIMARY ACTOR	Customer, pharmacist, system.
STAKEHOLDERS AND INTERESTS	Customer: Customers has already uploaded the prescriptions from the doctor System: should be able to store the prescriptions uploaded by the customer. Pharmacist: Should be able to access the prescriptions uploaded.
SUCCESS GUARANTEE	Pharmacists got prescriptions and made the medications ready.
MAIN SUCCESS SCENARIO	Pharmacists can now access the prescriptions uploaded by the customers in My Healthcare application.
EXTENSIONS	Pharmacy doesn't have the prescribed medication.



USE CASE 13

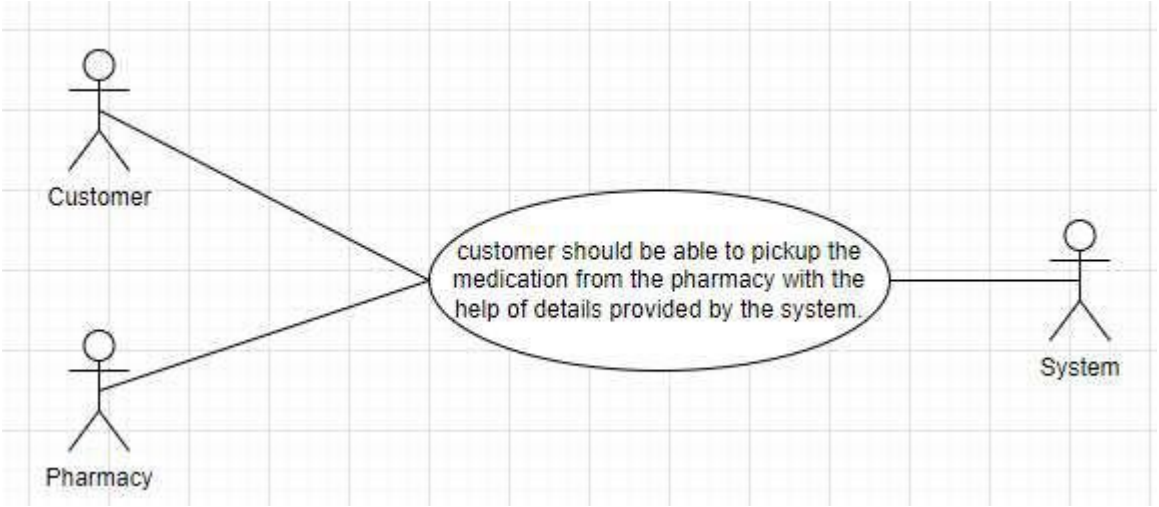
USE CASE	COMMENTS
Use case name	Pharmacist will be able to update the medication status
SCOPE	pharmacists should be able to update the medication status.
LEVEL	Customer, pharmacist, system
PRECONDITIONS	Pharmacist got the prescriptions
PRIMARY ACTOR	Customer, pharmacist, system.
STAKEHOLDERS AND INTERESTS	Customer: Customers have already uploaded the prescriptions from the doctor. Pharmacist: should be able to update the medication status System: should be able to access the medication status.
SUCCESS GUARANTEE	Pharmacists should be able to update the medication status.
MAIN SUCCESS SCENARIO	Pharmacists can now update the customer's medications status in My Healthcare application.
EXTENSIONS	System has crashed before updating the status.

USE CASE 14

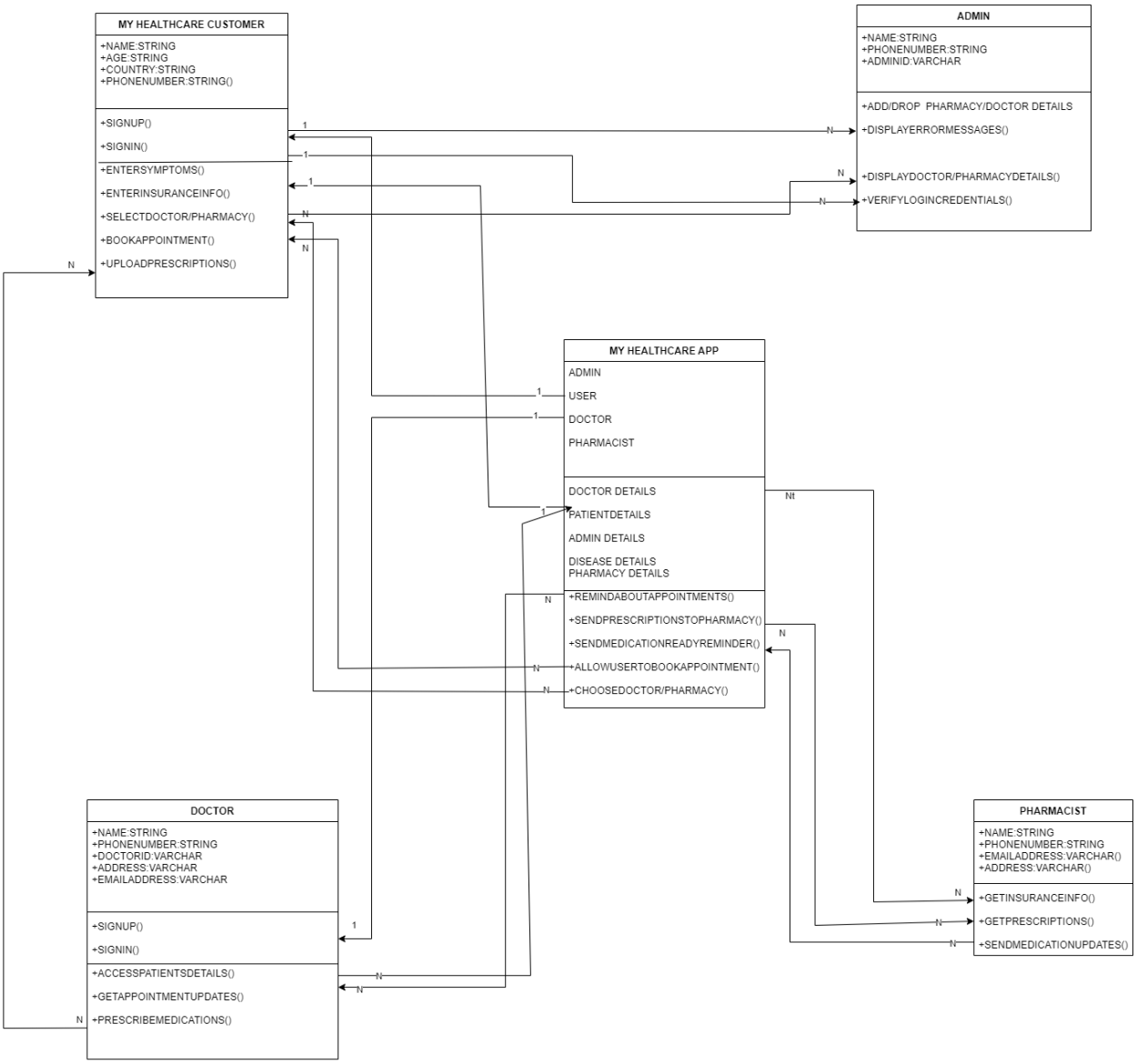
USE CASE	COMMENTS
Use case name	Displaying the medication ready message
SCOPE	Customers will know about medication status.
LEVEL	Customer, system
PRECONDITIONS	Pharmacist has successfully updated the medication status
PRIMARY ACTOR	Customer, system
STAKEHOLDERS AND INTERESTS	Customer: Customers should be able to know about their medication history. System: Let the customers know about their medication history
SUCCESS GUARANTEE	Customers will be able to know about their medication history.
MAIN SUCCESS SCENARIO	Customers can now successfully know their medication status in My Healthcare Application.
EXTENSIONS	The system may crash without displaying any message.

USE CASE 15

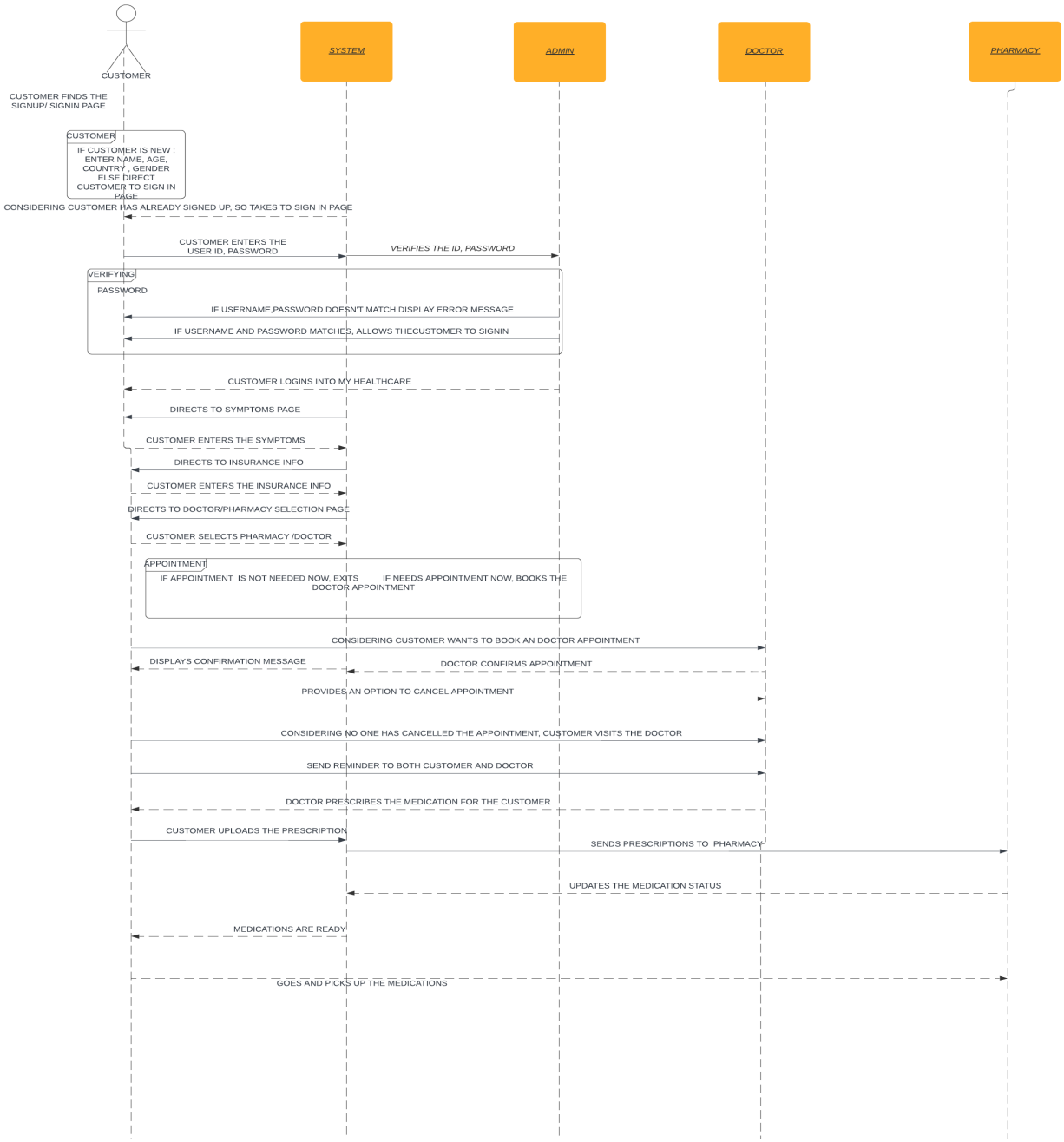
USE CASE	COMMENTS
Use case name	Picking up the medications from the pharmacy.
SCOPE	Customers can pick up their medications from pharmacy
LEVEL	Customer, pharmacy, System
PRECONDITIONS	Customer has received a medication ready message.
PRIMARY ACTOR	Customer, pharmacy. System
STAKEHOLDERS AND INTERESTS	Customer: Customers have received the medication ready message and should be able to pick up the medication. Pharmacy: Should make the medications ready for pick up. System: Should be able to provide customers with pharmacy details.
SUCCESS GUARANTEE	Customers have picked up their medications from pharmacies.
MAIN SUCCESS SCENARIO	Customers have successfully picked up their medications from pharmacies with the help of My Healthcare application.
EXTENSIONS	The customer went to the wrong pharmacy.



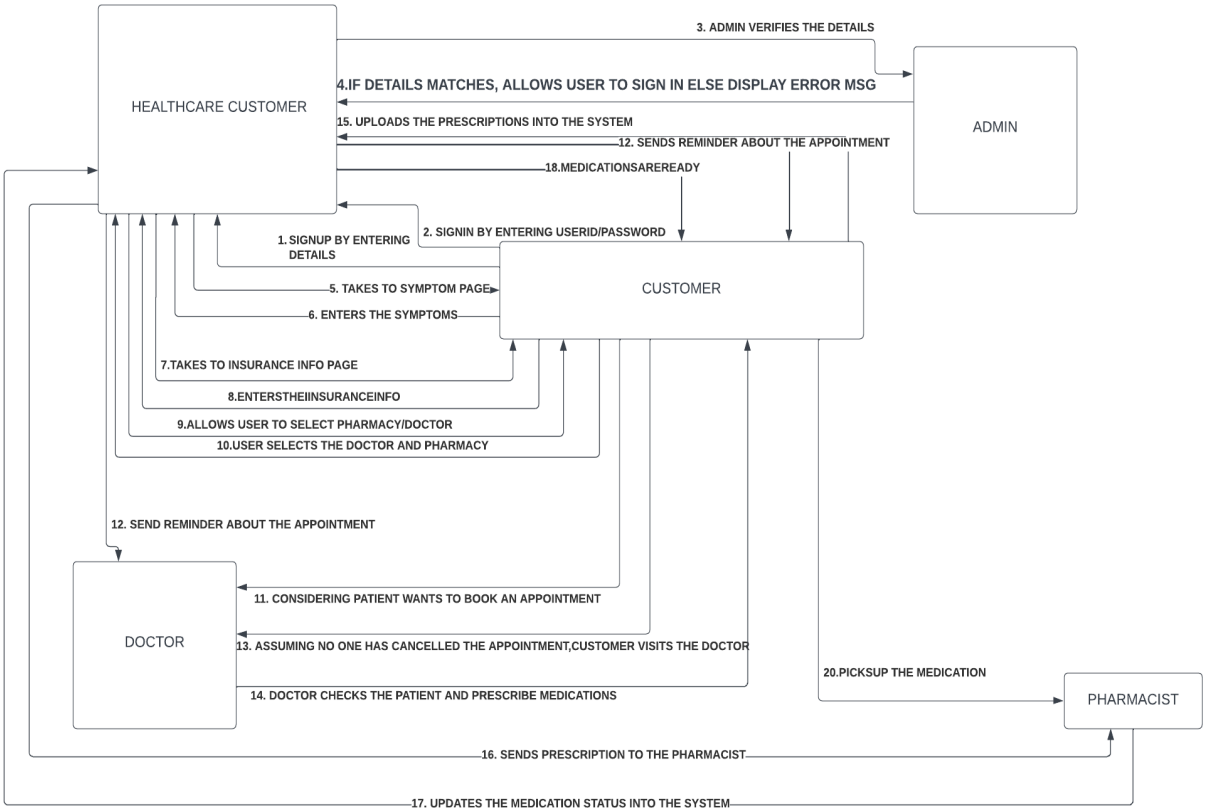
CLASS DIAGRAM



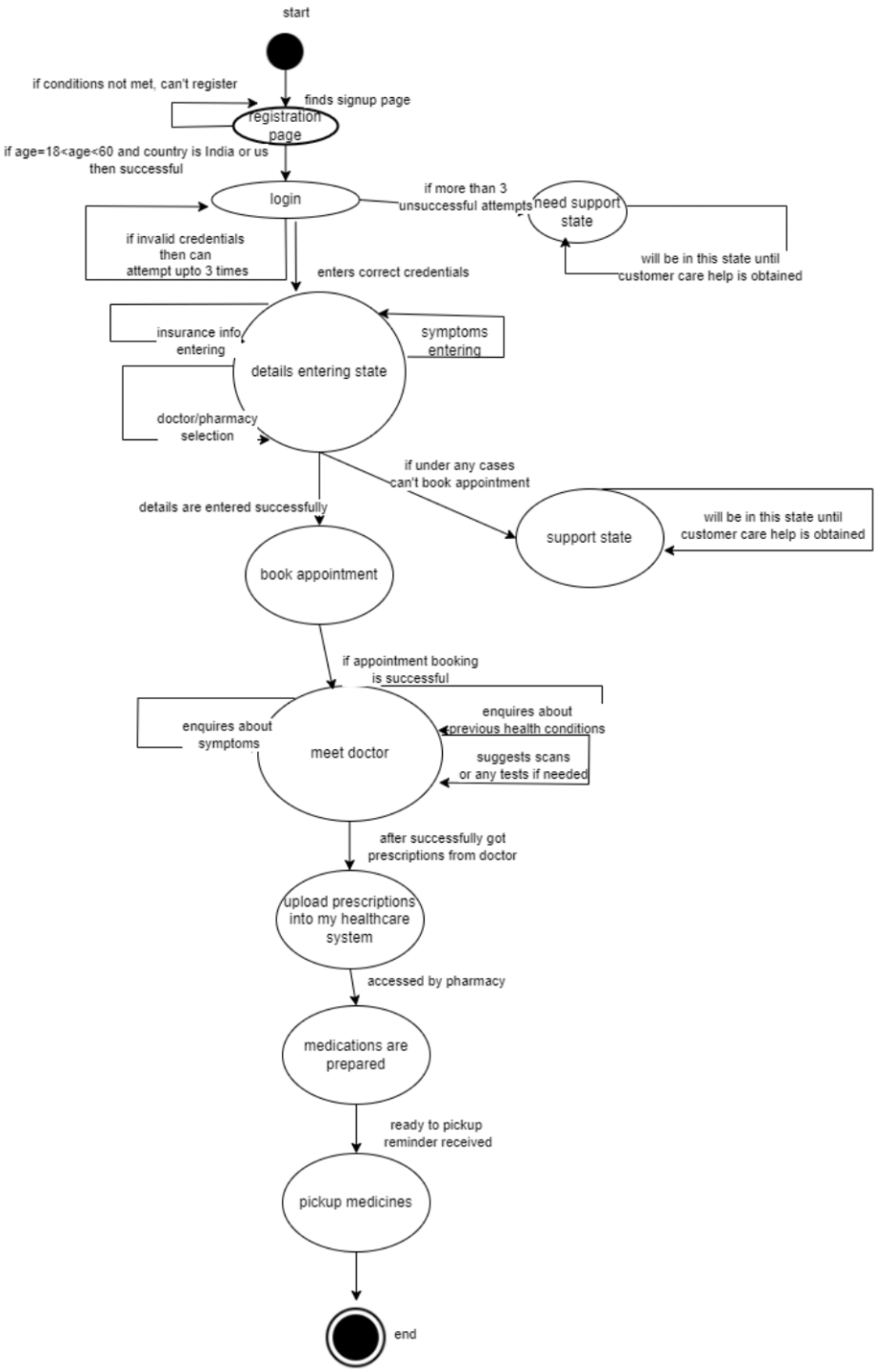
SEQUENCE DIAGRAM



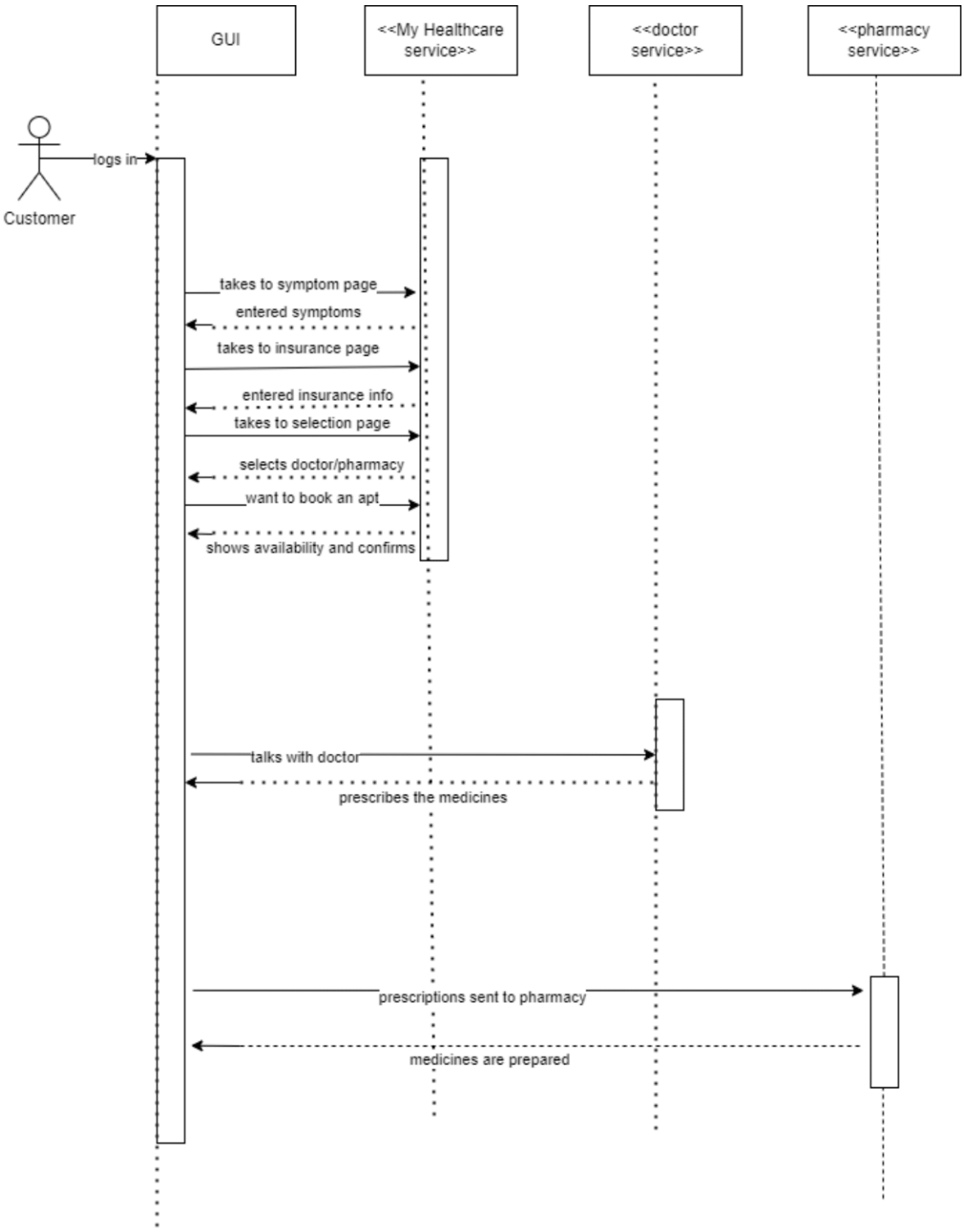
COMMUNICATION DIAGRAM



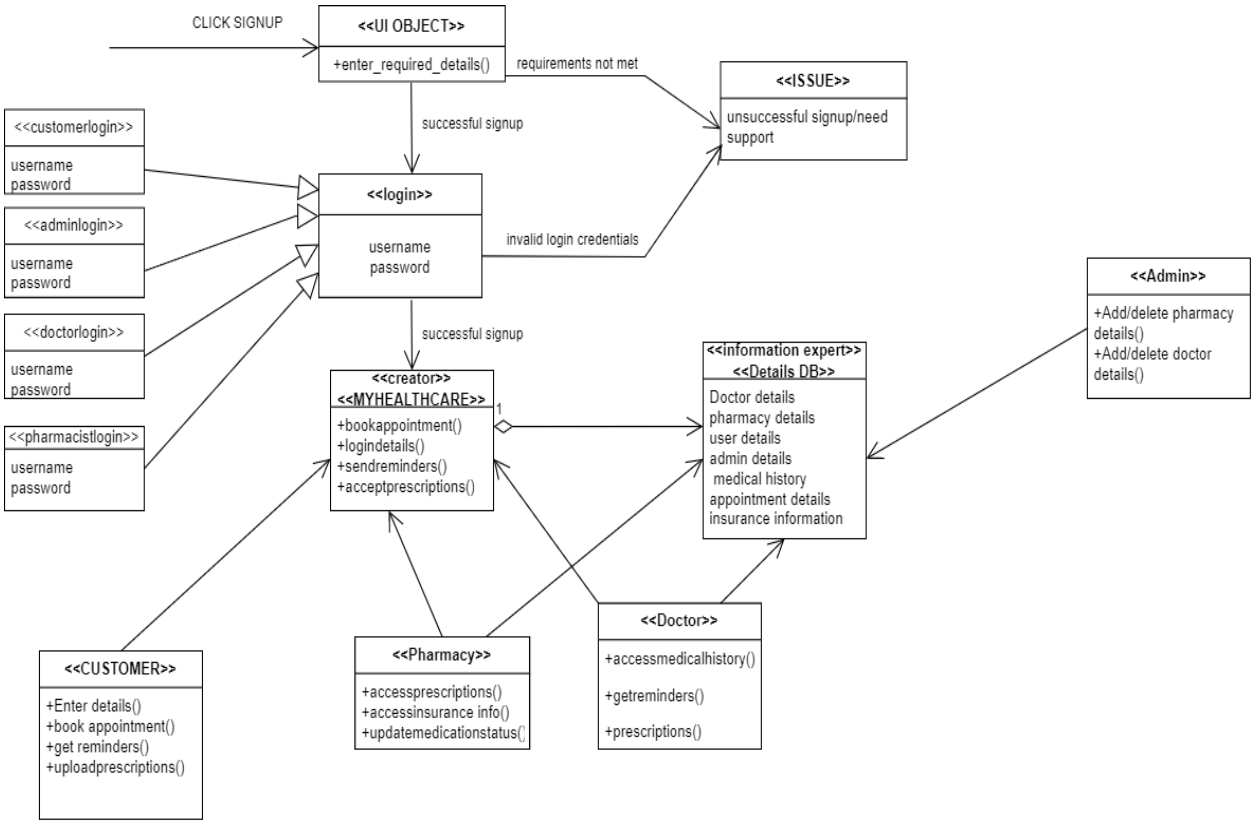
STATE CHART DIAGRAM



SOA DIAGRAM


GUI
<<My Healthcare service>>
<<doctor service>>
<<pharmacy service>>
Customer
logs in
takes to symptom page
entered symptoms
takes to insurance page
entered insurance info
takes to selection page
selects doctor/pharmacy
want to book an apt
shows availability and confirms
talks with doctor
prescribes the medicines
prescriptions sent to pharmacy
medicines are prepared

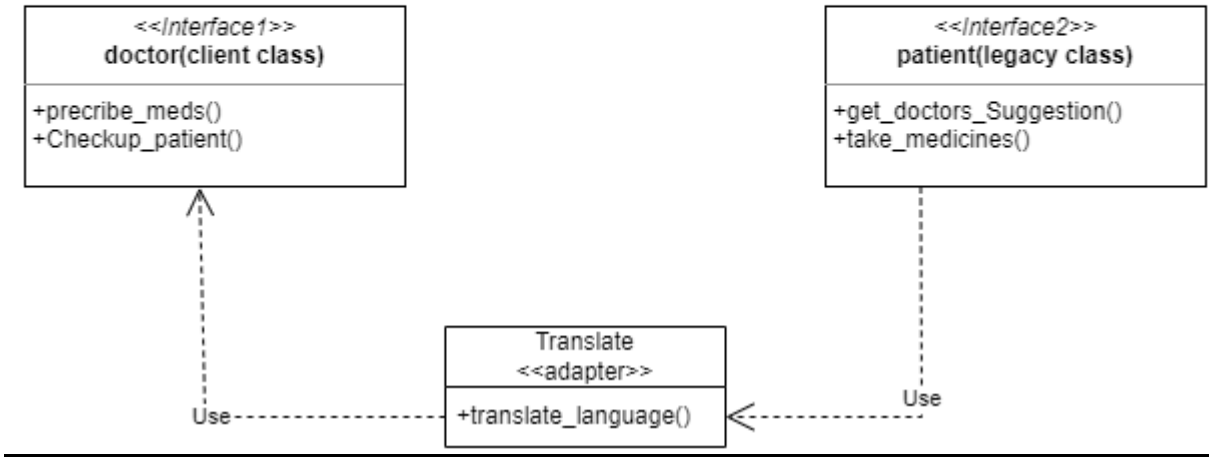
GRASP DIAGRAM



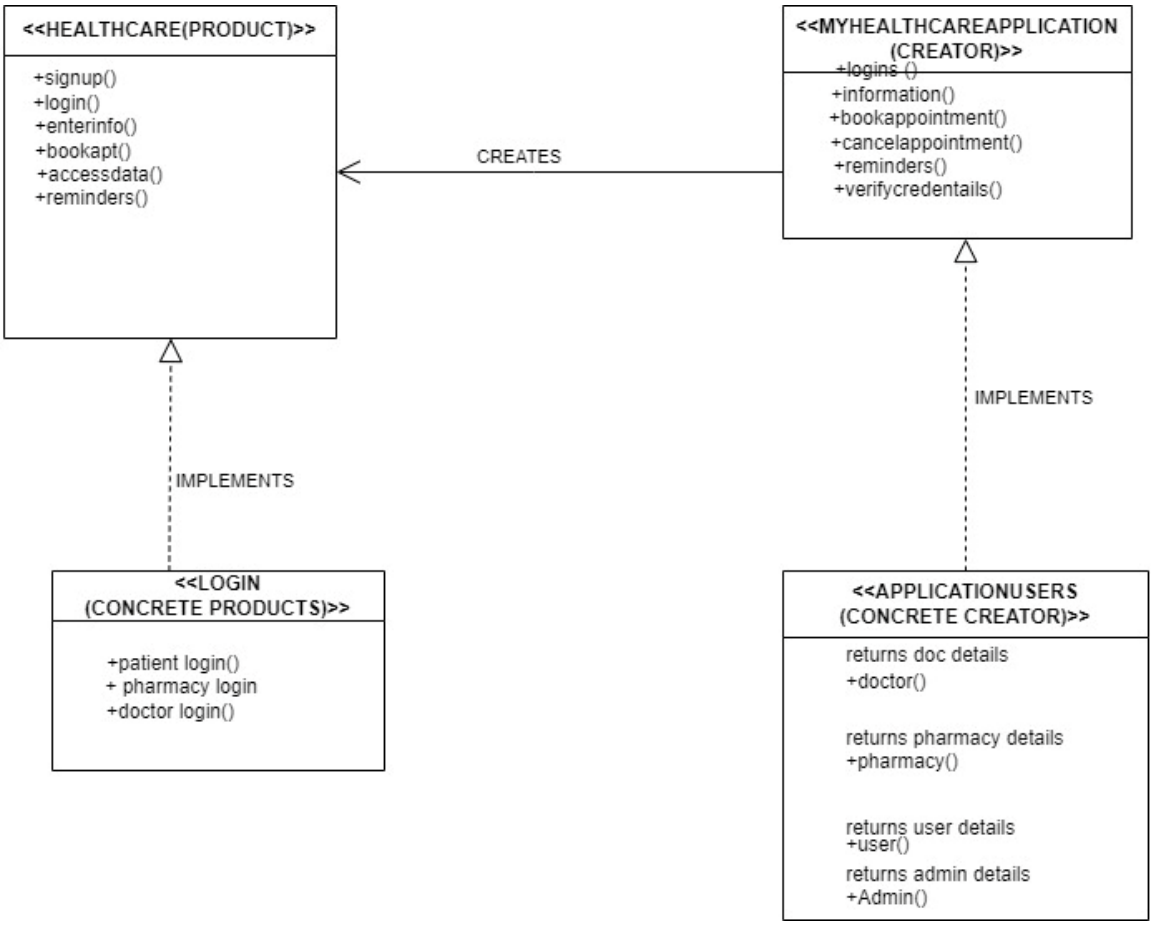
GOF PATTERN

Adapter diagram:

SCENARIO : PATIENT HAS BOOKED AN APPOINTMENT ,
BUT DOCTOR DOESN'T UNDERSTAND PATIENTS LANGUAGE.
To eliminate that problem, we use the translate class, in which the communication between patient and doctor is translated into a known common language or preference language of user.

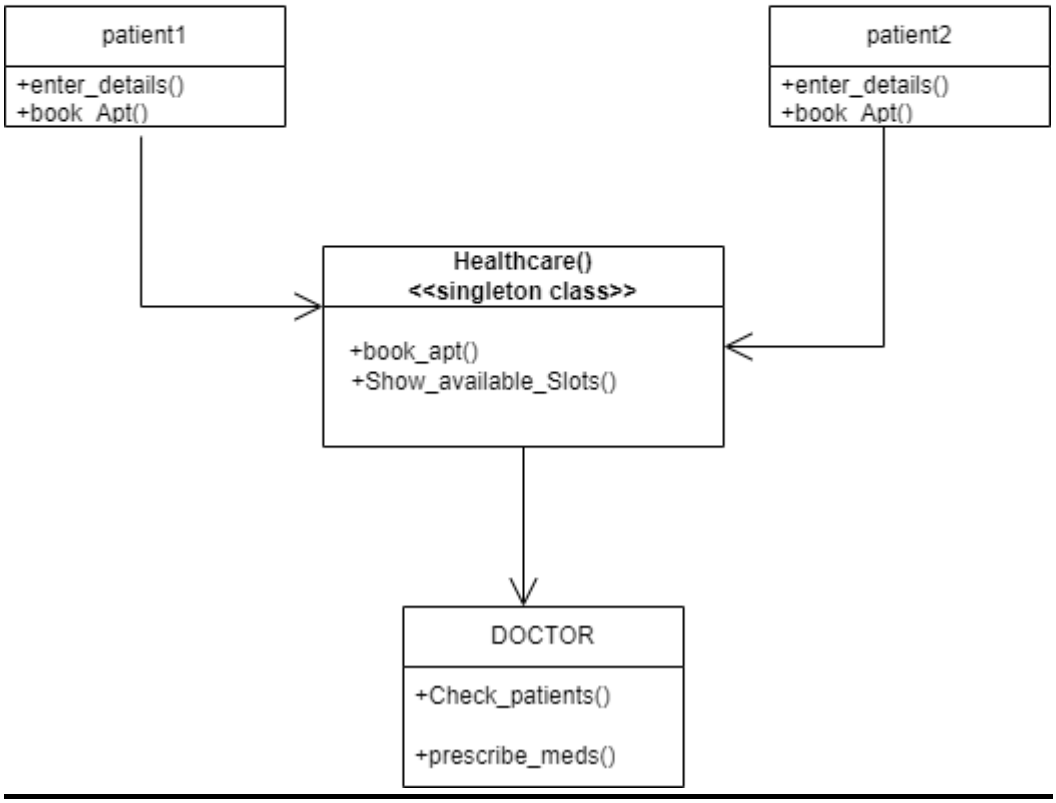


Factory method Diagram:



Singleton Diagram:

SCENARIO : 2 PATIENTS WANTS TO BOOK APPOINTMENT WITH SAME DOCTOR ON THE SAME DAY.
To solve this problem we create a healthcare class which shows available appointment slots with doctor. Only available slots can be booked and other patient cannot access the booked slot or details of patient who booked the slot



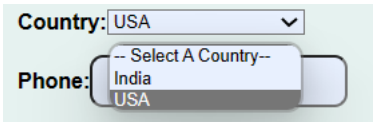
USER INTERFACE AND FUNCTIONS GUIDE

Detailed implementation of each use case is given below:
At first, the customer will find the the signin page and will sign in.
This is the signin page :

For the customer to sign up there are two constraints:

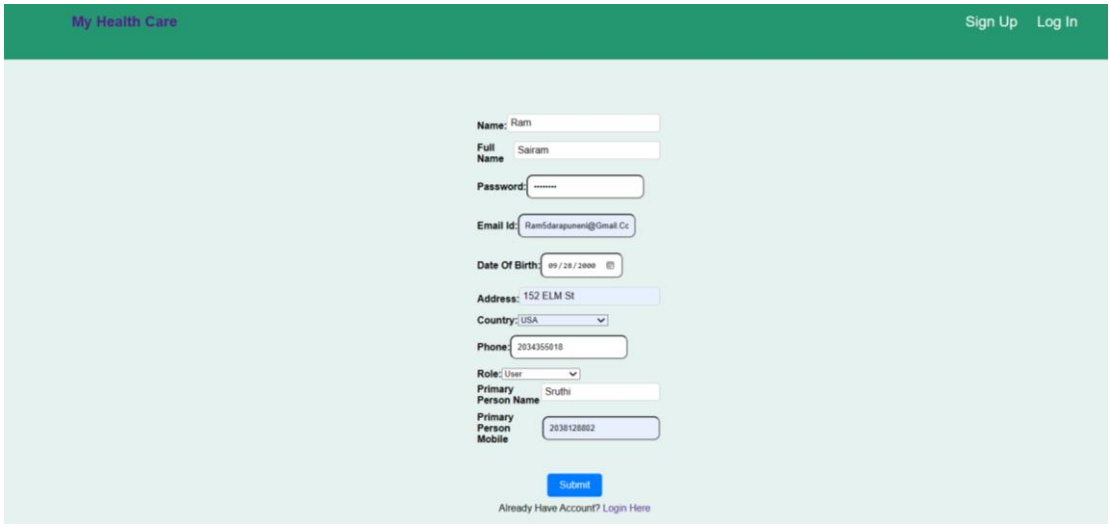
1. The age of customer should be in between 18-60, if an error message will be displayed as below:

2. The customer should be either from INDIA or USA.



If both constraints and satisfied i.e., customer's age is between 18-60 and is from either INDIA or USA then the customer will be able to sign up.

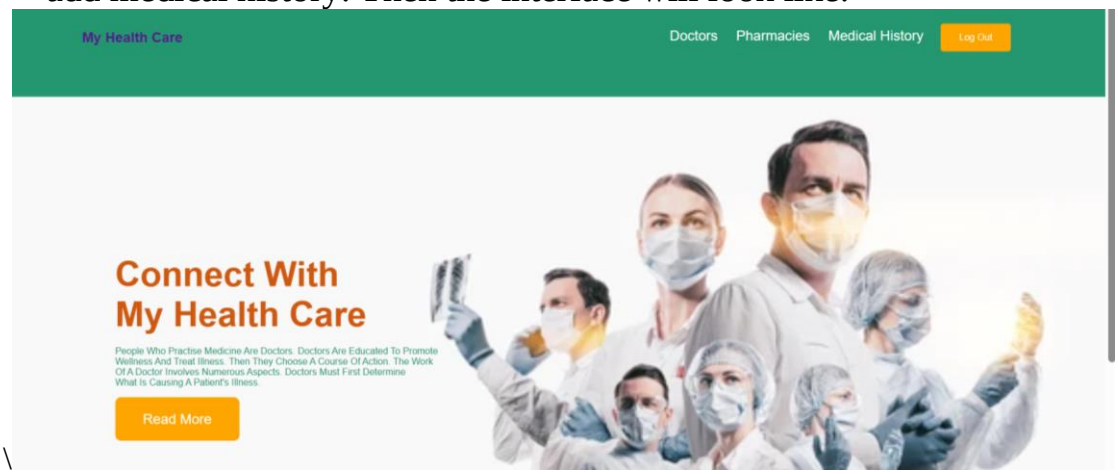
The customer will signup by entering all the details:



Once the customer has filled all the details and hit the submit button, a pop-up message shows up saying “successfully signed up”.

If both username and password are correct, successfully signed in message will be displayed. There are 3 interfaces depending on who is logging in.

a. If a customer logs in, customer has access to view doctors, pharmacies and add medical history. Then the interface will look like:



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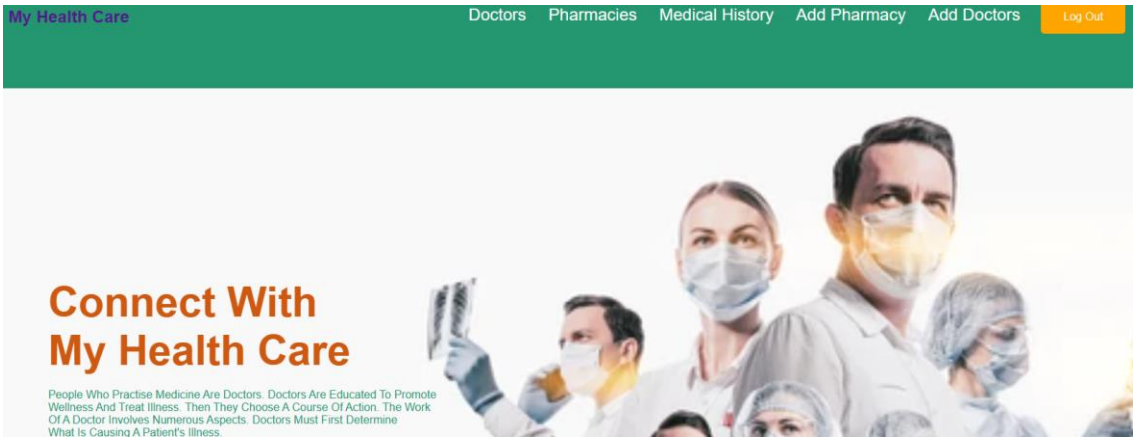
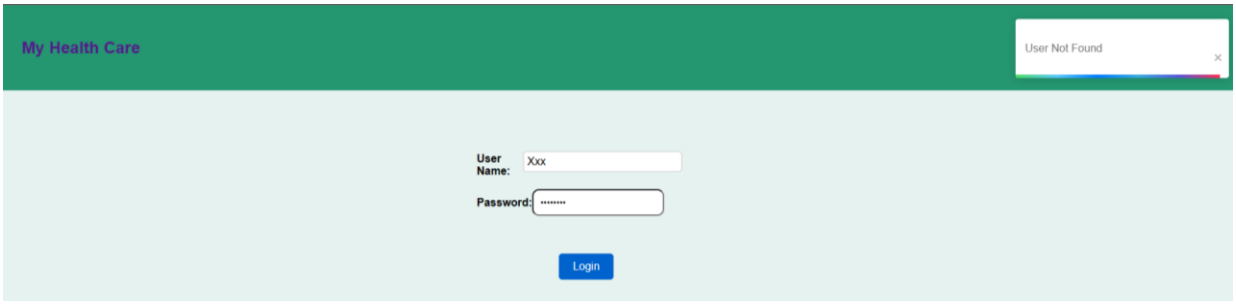
b. If the doctor logs in , they will be provided with the options to access doctors, pharmacies, view medical history.Then the interface will look like:

c. If the admin logs in, they admin will have access to view and modify doctors, pharmacies and view medical history. then the interface will look like:

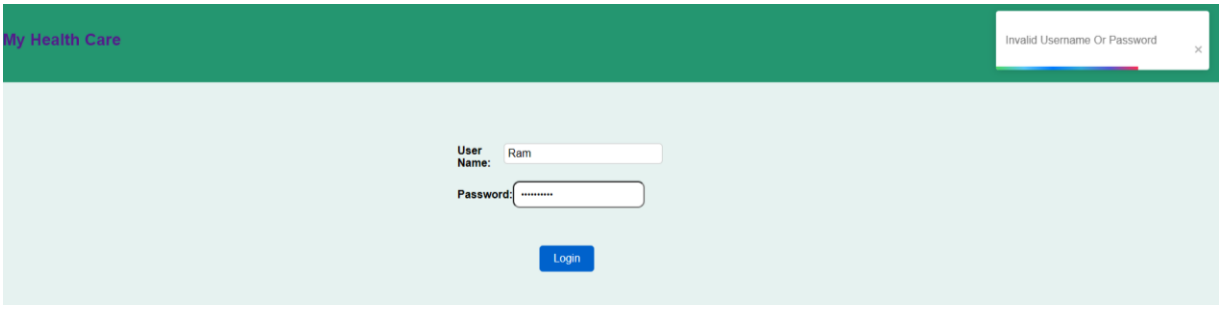


Once the customer has signed up, the customer will try to sign in by entering the username and password.

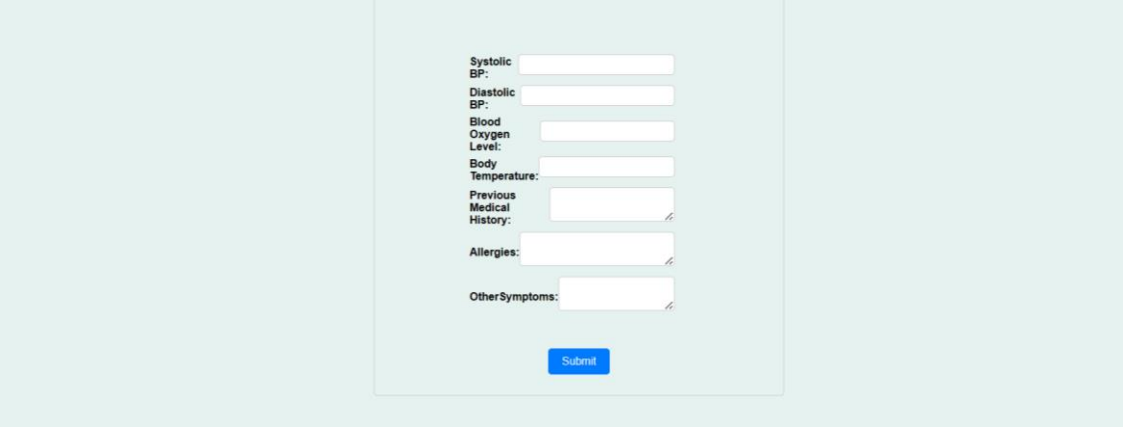
1. If the username is wrong the following error message will be displayed.



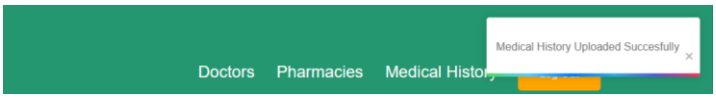
2. If the password is wrong the following error message will be displayed.



The customer will be provided with an option to enter the symptoms they are facing and previous medical history.



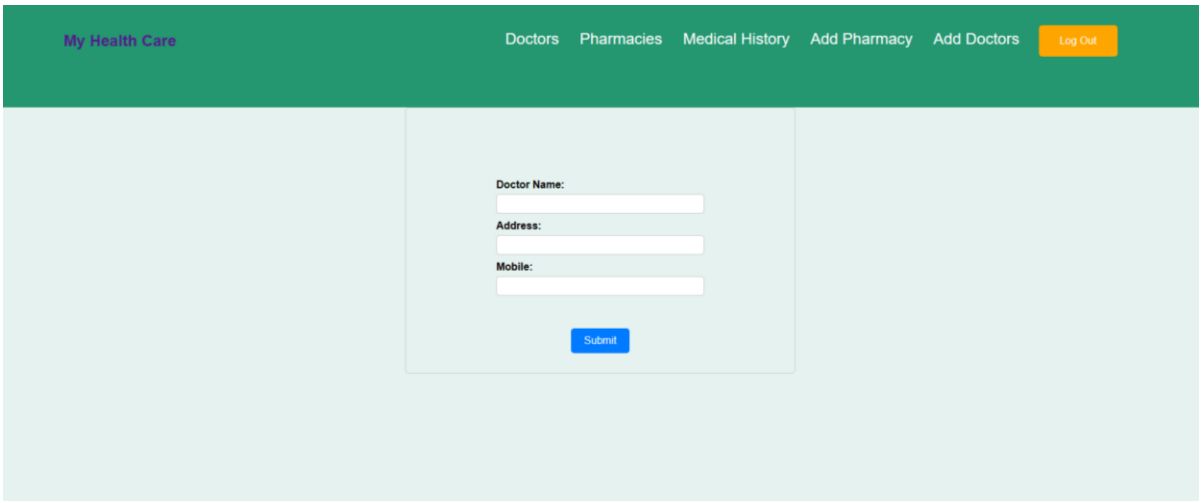
Once all the details are filled, a pop-up message saying medical history is updated successfully is displayed.



The admin is provided with an option to add doctors and pharmacies.

Admin is also able to delete them.

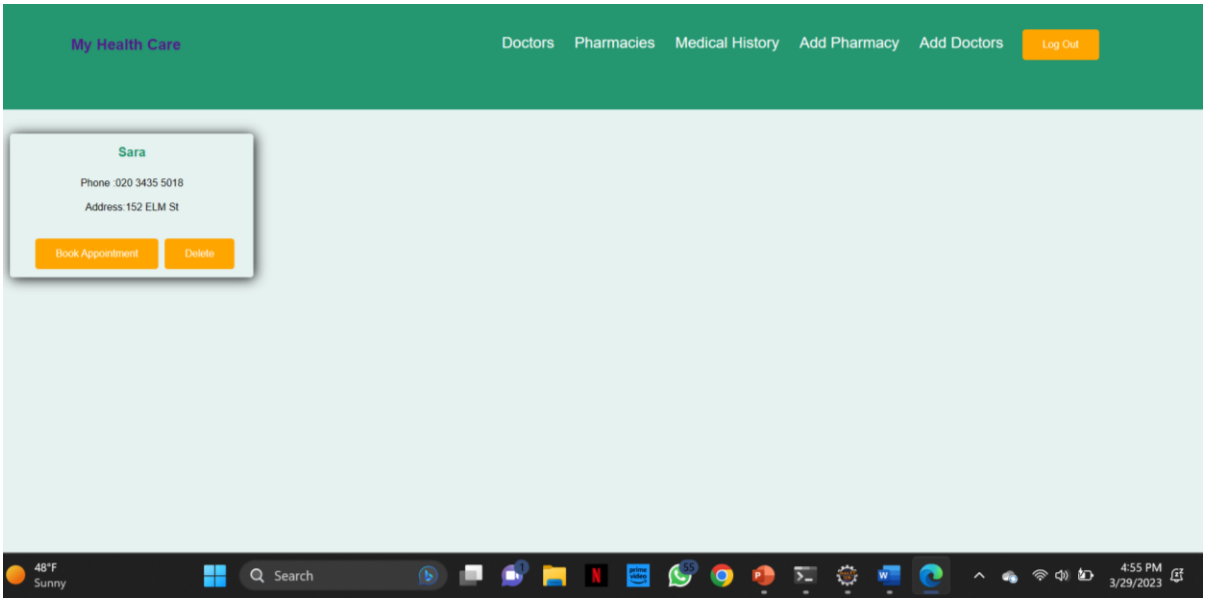
ADMIN ADDING DOCTOR:



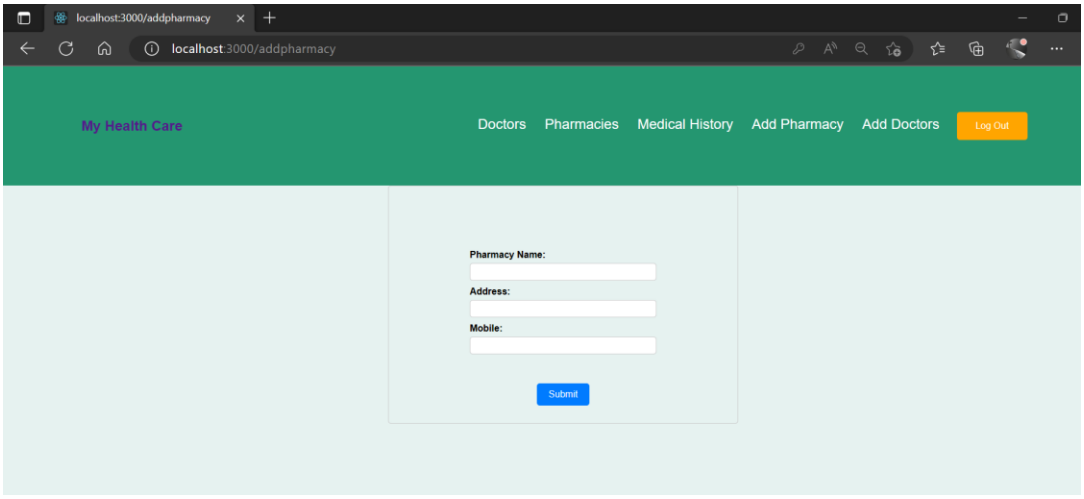
After adding the doctor, the list of doctors is updated, and customers can view the doctor's details and can book the appointment.

Here only admin is provided with the option of deleting the doctor.

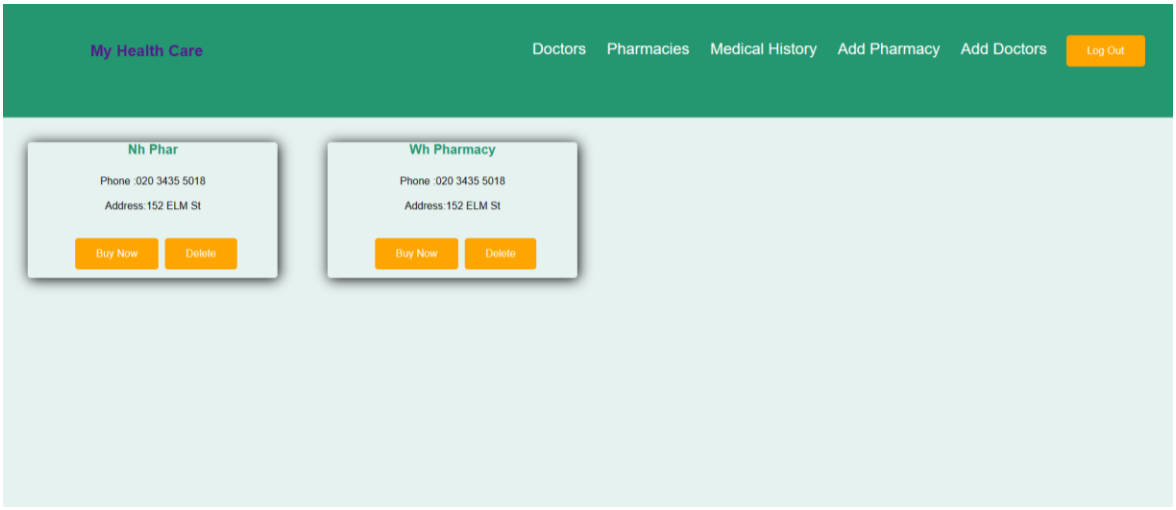
Once the doctor has deleted the doctor, then the doctor becomes inactive, and patients cannot book the appointment.



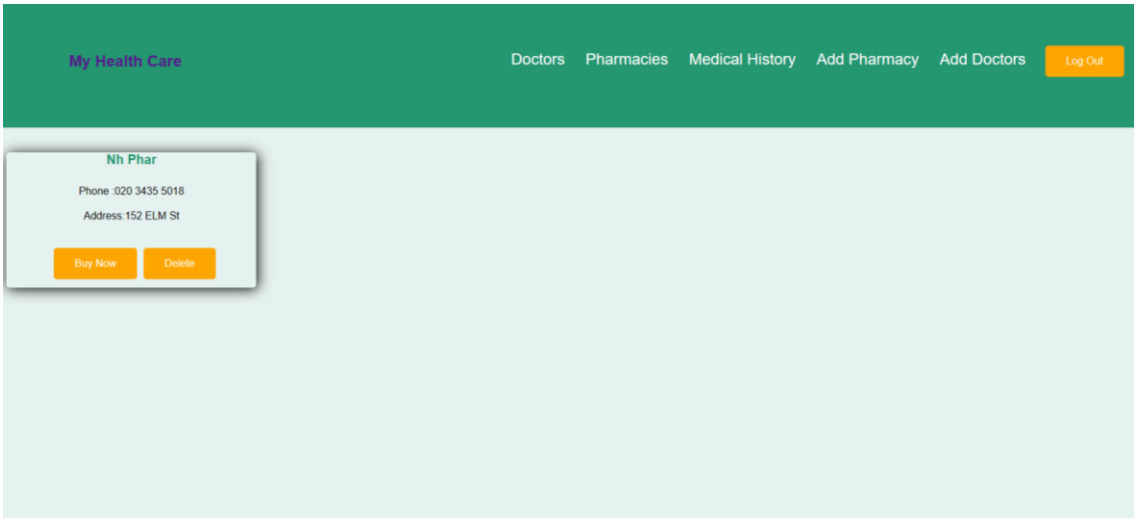
Admin can add the pharmacies.



Once the admin has added the pharmacy into the list of pharmacy, user is provided with an option to buy meds from the pharmacy.



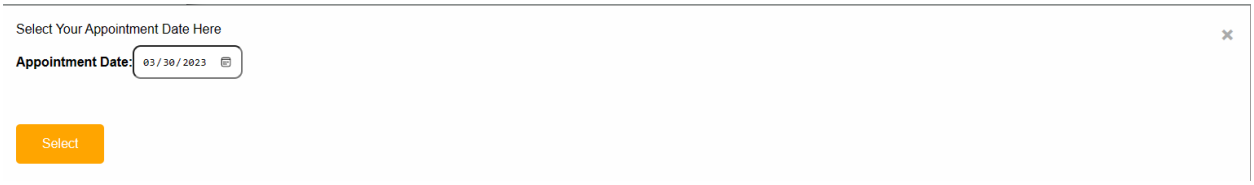
The admin is also able to modify the list of doctors and pharmacies.



Now we can only see one pharmacy as the admin deleted the other one.

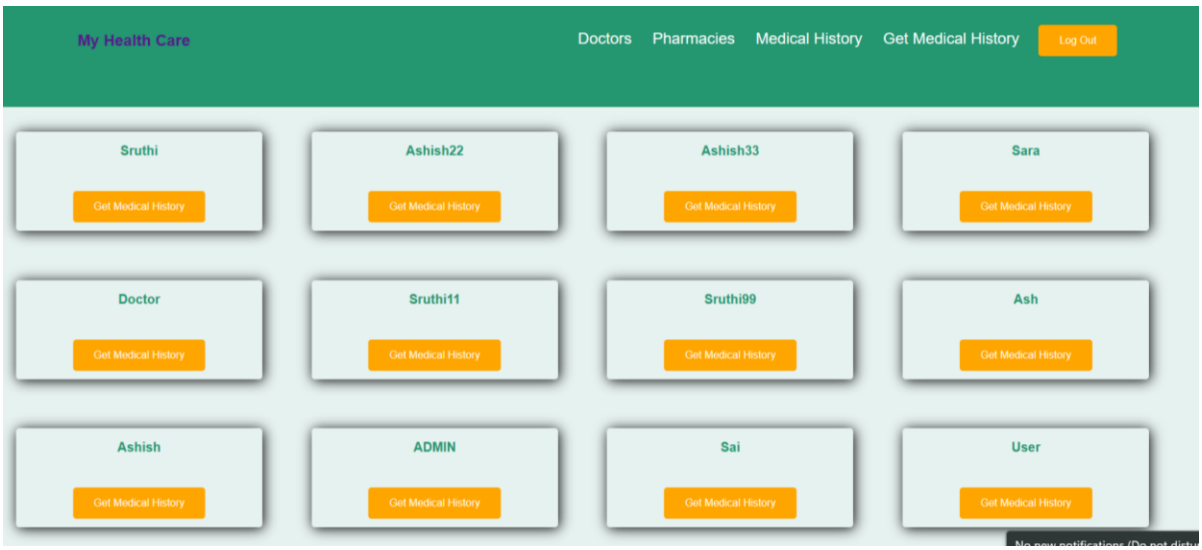
The customer can choose one of the doctors and pharmacies of their choice to book appointments and to buy medicines.

The customer can select a date of their choice and book an appointment.

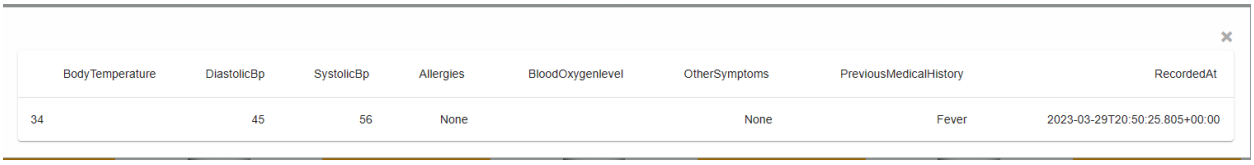


Once the appointment is booked, a pop-up appears on screen saying that the appointment is booked.

When the doctor logs in, he can access the medical history of any patient by clicking on get medical history.



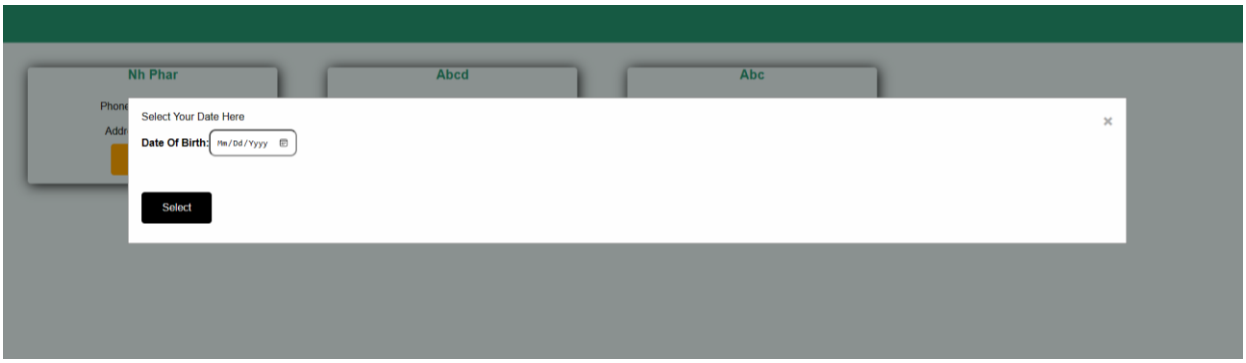
This is the medical history of a particular patient.



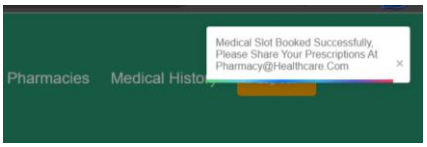
BodyTemperature	DiastolicBp	SystolicBp	Allergies	BloodOxygenlevel	OtherSymptoms	PreviousMedicalHistory	RecordedAt
34	45	56	None		None	Fever	2023-03-29T20:50:25.805+00:00

Once the customer, has visited the doctor and taken prescriptions from the doctor,

The customer will book a slot with the pharmacy of their choice from the list of pharmacies provided by health care portal to get their medicines ready and pick it up.



Once the slot has been booked, a pop-up message will be displayed informing the customer to share insurance details and prescriptions with their email address.



CONCLUSION

- My health care portal enables the user, admin, doctor to signup and login.
- Once the customer has logged in, they can enter symptoms and medical history, choose doctor of their choice and book appointment, once the doctor consultation is done can book a pharmacy of choice and send prescriptions and medical information with them.
- Once the doctor has logged in, Doctor can access the medical information of patients, and prescribe new prescriptions.
- Once the admin has logged in, Admin can access the doctors and pharmacies data and can modify them if needed.

RETROSPECTIVE

Sprint 1:

What worked well?

- While working on the sprint 1, drawing UML diagrams was interesting.
- Learned working on new tools like DBeaver, PostgreSQL which increased our knowledge in implementation.

What didn't work well?

- We as a group think that we need to work on user interface.

Sprint 2:

What worked well?

- While working on sprint 2, we learned about implementing code in easier to handle mode in java.
- We have learned how to work as a team effectively.
- We have also learned how to divide tasks among each other to get good results.

What didn't work well?

- Dividing the tasks among ourselves was a trouble initially but later, we didn't face that problem.
- Working on the front end was hard for us because we didn't have good knowledge of that part.

Sprint 3:

What worked well?

- Leaving less use cases to implement in sprint 3 helped us.
- Team co-ordination was good.

What didn't work well?

- Implementing scheduled tasks was hard.

QUALITY ATTRIBUTES

Usability:

The portal is easy to navigate and use for all types of users (customers, doctors, and administrators).

Security:

The portal ensures that all personal and medical information of users is protected and kept confidential by authenticating all types of users using usernames and passwords.

Performance:

The portal can handle many users simultaneously without any slowdown or interruption in service.

Reliability:

The portal is available 24/7 and is reliable.

Integration:

The portal can integrate with other healthcare systems, hospital systems, insurance systems, and electronic health records.

Customization:

The portal allows customers to customize their experience, by providing an option to choose their preferred doctor or pharmacy.

Accuracy:

The portal provides accurate and up-to-date medical ensuring that they receive the correct treatment and medication by allowing customers to add their medical history.

INVOICE

The tasks are divided among the people in the group and each person worked on their respective task. Since there are some problems during coding, Coding part has taken more time than what was submitted in the product backlog.

The detailed invoice of working hours of each person in the team is listed below:

NAME OF THE STUDENT	WORKED ON	HOURS WORKED
Ashish Sadineni	1.signup module – code, design, and implementation	Sprint 1:3
	2.Use case diagrams	
	3. Presentation	Sprint 2:4
	4.UI changes	
	5.Presentation and code debugging	Sprint 3:2
	6.Presentation, documentation and worked on UI changes	
Sai Sruthi Mukka	1. login module – design, code, and implementation	Sprint 1:4
	2.Use case diagrams and documentation	
	3.Class diagram creation and documentation	Sprint 2:2
	4. soa patterns, grasp patterns	
	5.Code debugging and error resolving	Sprint 3:3
	6.Code execution and worked on admin module	

Srikanth Reddy Pullagurla	1.user interface creation – design, code, and implementation	Sprint 1:4
	2. Interaction diagrams creation and documentation	
	3.admin module code and implementation	Sprint 2:2
	4. Communication diagrams creation and documentation	
	5. Resolving Database connectivity issue	Sprint 3:2
	6.gof patterns	
Silas Chappidi	1. state diagram creation and implementation1	Sprint 1:2
	2.Interaction diagrams creation and documentation	
	3.appointment module, design, code, implementation	Sprint 2:3
	4.doctor login module	
	5.SOA Patterns - documentation	Sprint 3:2
	6.worked on interaction, sequence diagrams for the new use cases and on some code modifications	