Design Class Diagram of HealthCare Management System

HealthcareSystem

-webAdmin: Admin

+storeRegData(name: String, password: String, id: String): void
+assignDoctor(p: Patient, d: Doctor): boolean
+verifyLogin(name: String, password: String, id: String): boolean

Admin

-adminID: String
-password: String
-doctorList: list<Doctor>
-pharmacistList: list<Pharmacist>
-patientList: list<Patient>

+verifyCredentials(u: User): boolean
+removePatient(id: String, name: String): boolean
+assignDoctor(p: Patient): boolean
+addDoctor(stID: String, regNo: int, id: int, n: String, pw: String, specialty: String, exp: float): boolean
+addPharmacist(stID: String, regNo: int, id: int, n: String, pw: String): boolean
+removePharmacist(id: int): boolean
+removeDoctor(id: int): boolean
+Login(id: String, password: String)

Symptom

-symptomsShow: List<Symptom>

+askSymptoms(): list<Symptom>

User

#name: String
#UID: String
#password: String

+Login(nm: String, pw: String): boolean

Patient

-historyOfDiseases: List<Disease>
-assignedDoc: Doctor
-assignedPharm: Pharmacist
-currDisease: Disease

+askDoctor(symps: list<Symptom>): disease
+askPharmacist(d: disease, age: int): List<Medicine>
+rateDoctor(rate: float, d: String): boolean
+askForDoc(spec: string): boolean
+getDisease(): disease
+makeChat(): void
+Patient(n: String, uID: String, pw: String): Patient
+SignUp(n: String, uID: String, pw: String): boolean

Staff

#staffID: String
#regNo: int

Disease

-constraints: String

+compSymptoms(s: list<Symptom>): boolean
+displayConstraints(): void

Doctor

#experience: float
#diseaseList: List<Disease>
#specialty: string
#multipleRateFlag: boolean
#rateDescriptions: List<String>
#rating: Rating

+checkDisease(s: list<Symptom>): Disease
+updateRate(rate: float): void
+displayDiseases(): void
+addDisease(n: string, s: list<Symptom>, c: list<string>): boolean
+Doctor(stID: String, regNo: int, id: int, name: String, pw: String, spec: String, exp: float): Doctor
+checkMultipleRateFlag(): boolean
+AddDesc(desc: String): void

doctor will check the disease by passing the patient and then according to the aggregated symptoms in the patient object, and return the disease

experience in years

Pharmacist

-medicineList: List<Medicine>

+suggestMedicines(d: Disease, age: int): List<Medicine>
+displayMedicines(): void
+addMedicine(n: String, p: double, d: List<Disease>): void
+removeMedicine(id: int): boolean
+Pharmacist(stID: String, regNo: int, id: int, n: String, pw: String): Pharmacist

dosage will be in mg

Rating

-rateValue: float
-description: String

Prescribes

-dosage: float
-time: Time
-durationDays: int

this is tertiary association class as diamond is not possible in StarUML

Dermatologist

curableDiseases: List<Disease>

ENT

curableDiseases: List<Disease>

Dental

curableDiseases: List<Disease>

Medicine

-id: int
-name: String
-price: double
-treatableDiseases: List<Disease>

+compDiseases(s: Disease, age): Medicine
+displayPrescription(m: Medicine, p: Patient): void

DiagnosedBy

Rates
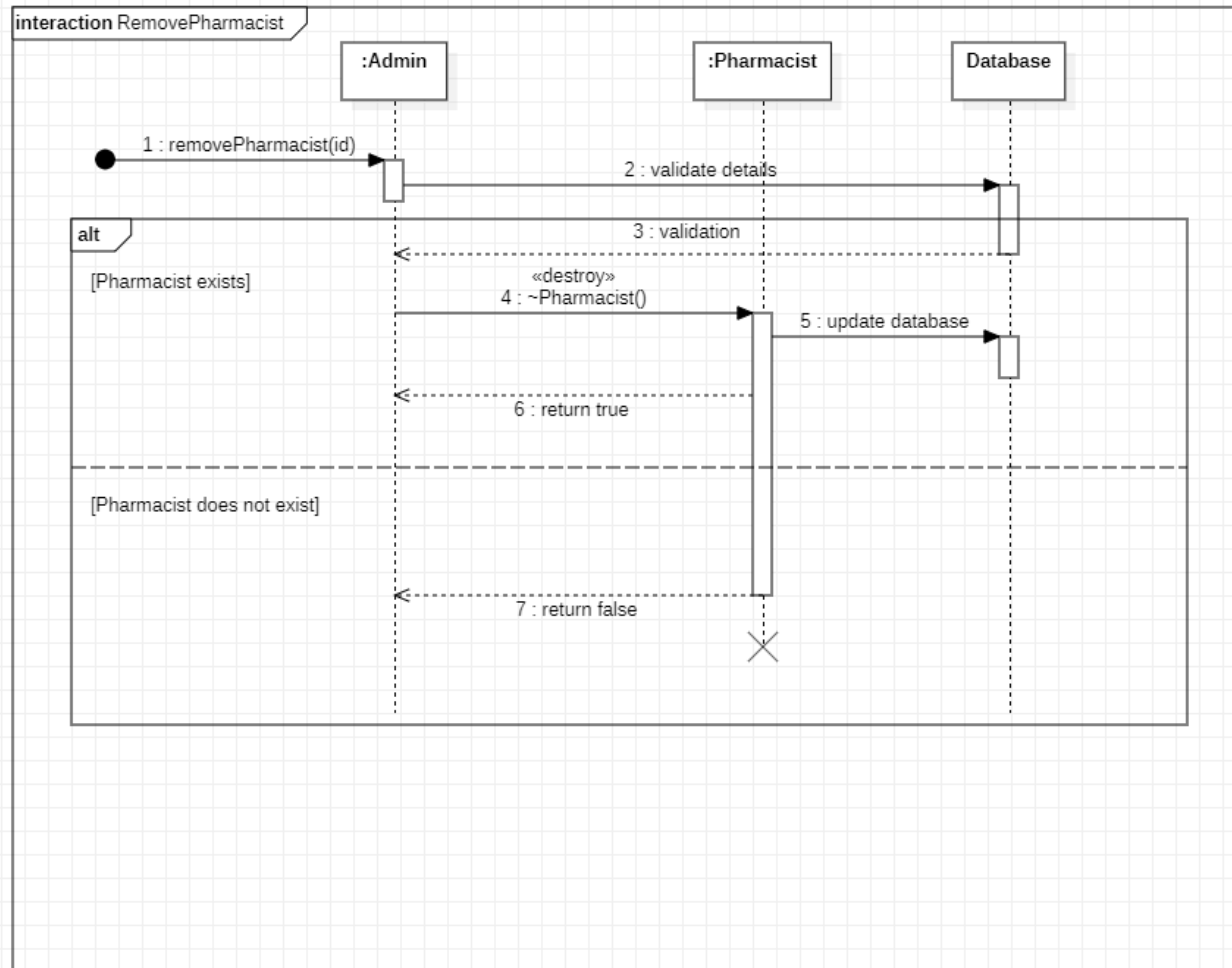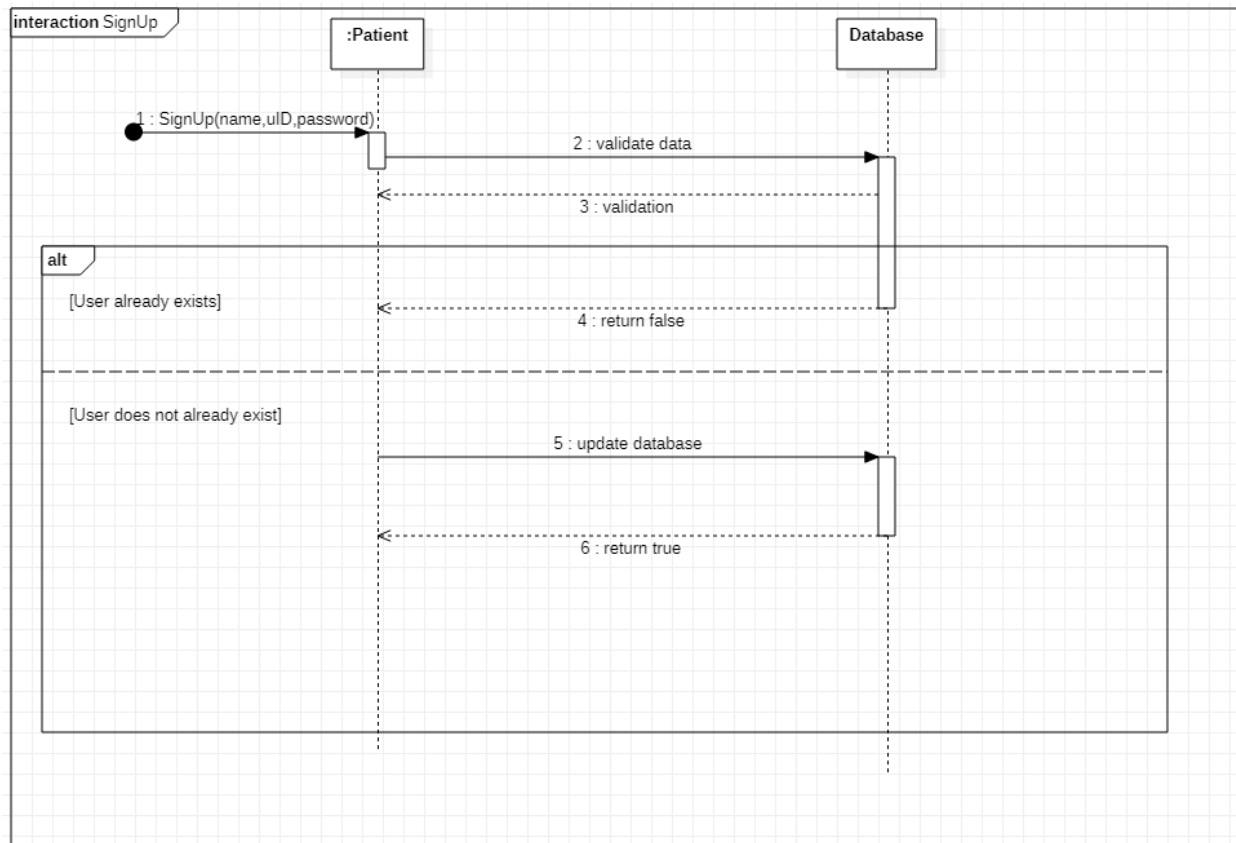
IsAssigned

Design Sequence Diagrams

Design Sequence Diagram of UC-01 – Add Doctor:
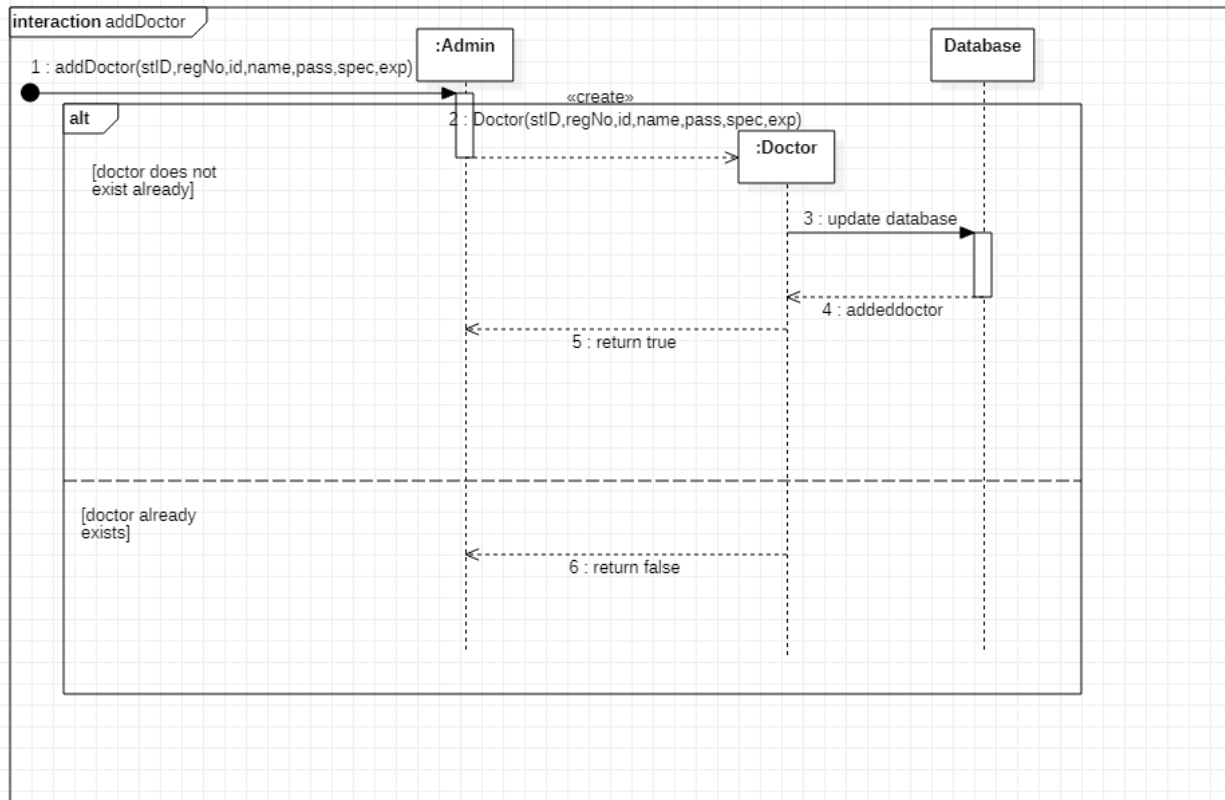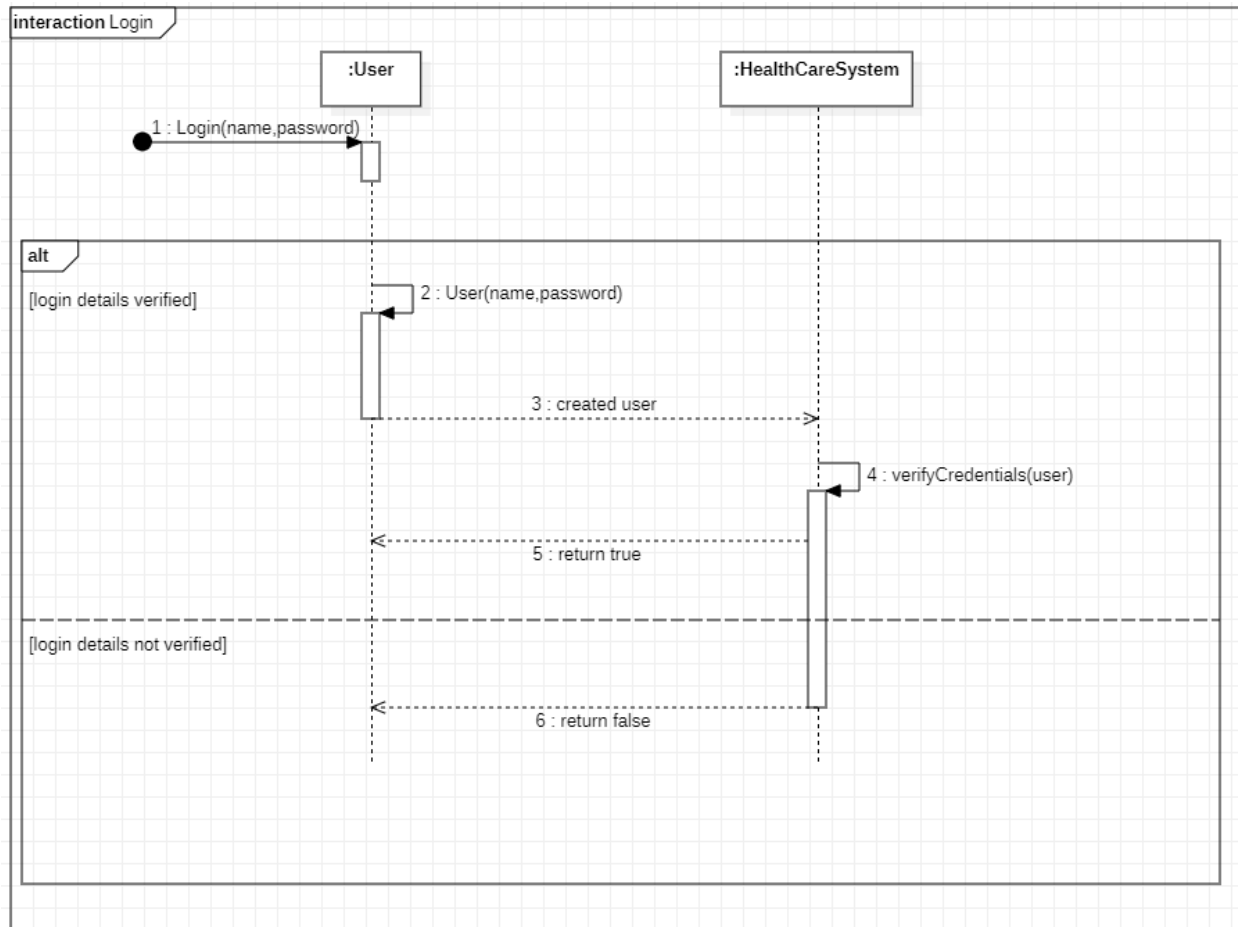
Design Sequence Diagram of UC-02 – Remove Pharmacist:
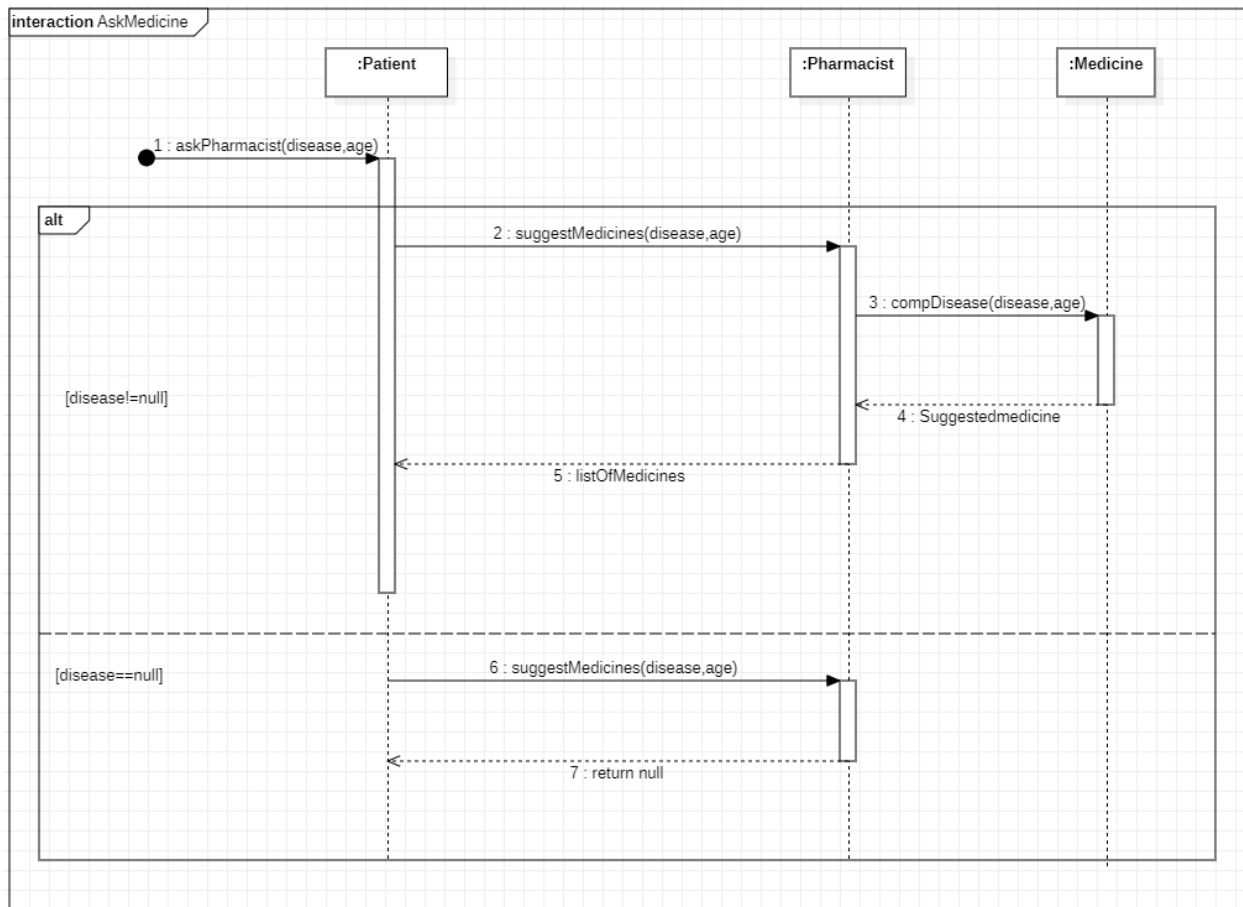
Design Sequence Diagram of UC-03 – Sign Up:

interaction SignUp

:Patient   Database

1 : SignUp(name,uID,password)

2 : validate data

3 : validation

alt

[User already exists]

4 : return false

[User does not already exist]

5 : update database

6 : return true

Design Sequence Diagram of UC-04 – Diagnose Disease/Ask Doctor:
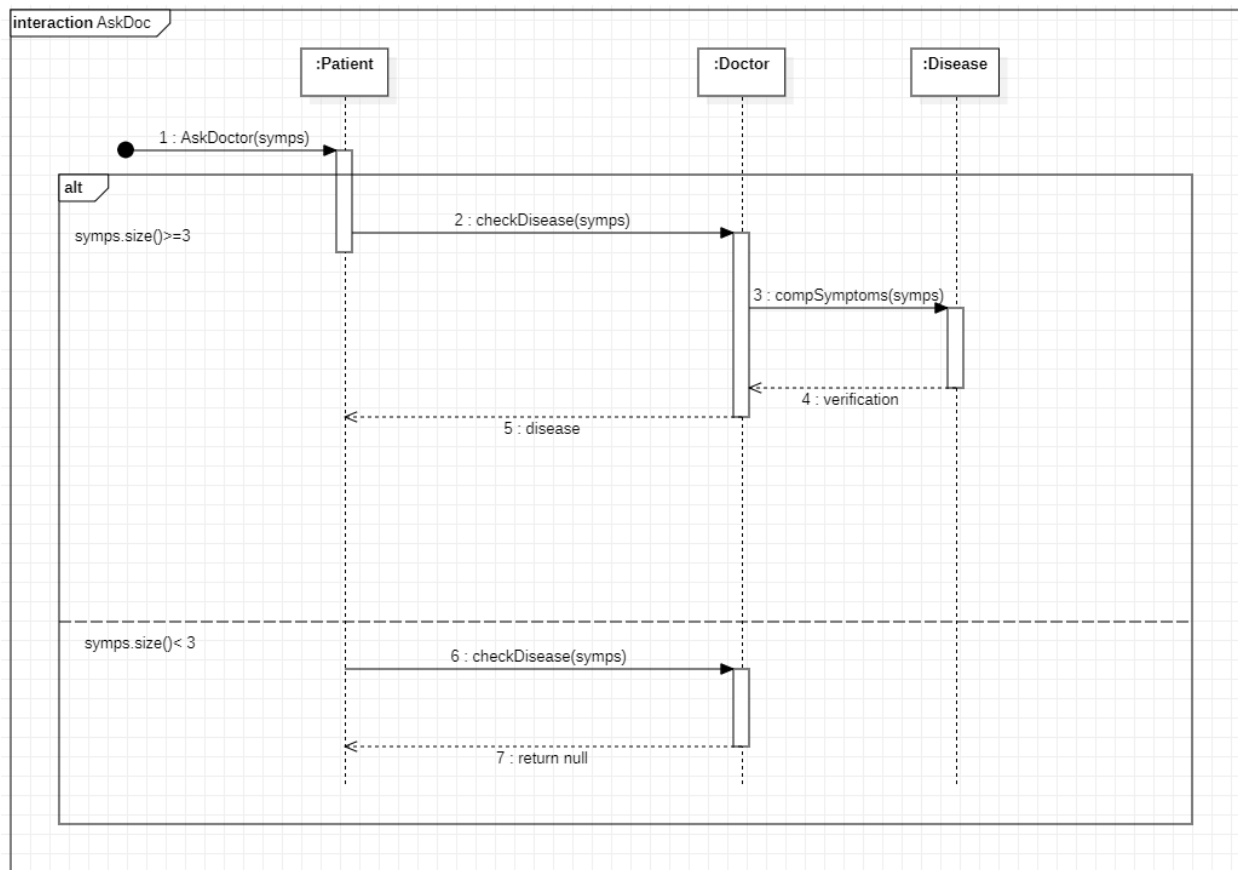
Design Sequence Diagram of UC-05 – Login:

interaction Login

:User   :HealthCareSystem

1 : Login(name,password)

alt

[login details verified]

2 : User(name,password)

3 : created user

4 : verifyCredentials(user)

5 : return true

[login details not verified]

6 : return false

Design Sequence Diagram of UC-06 – Ask Medicine:

Design Sequence Diagram of UC-07 – Remove Doctor:
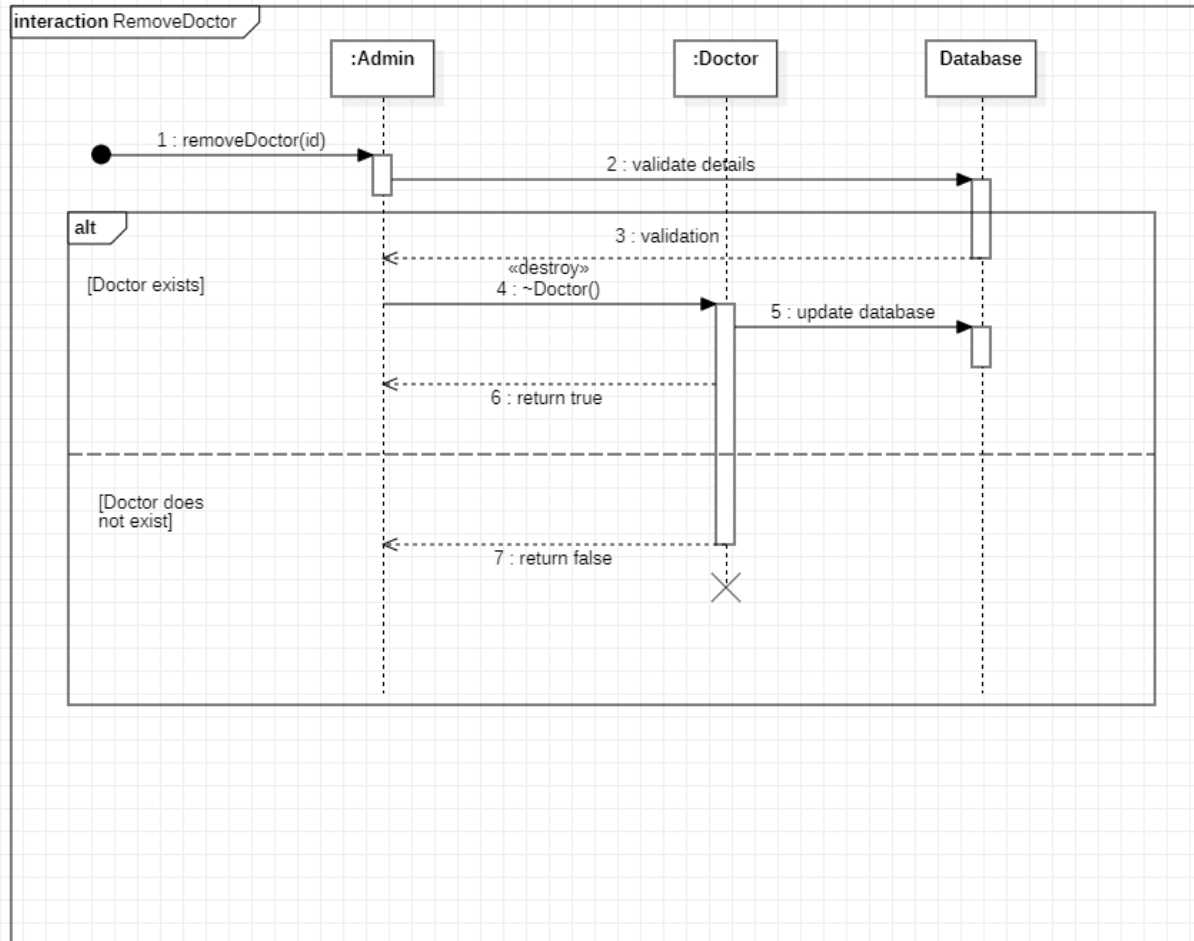
Design Sequence Diagram of UC-08 – Remove Patient:
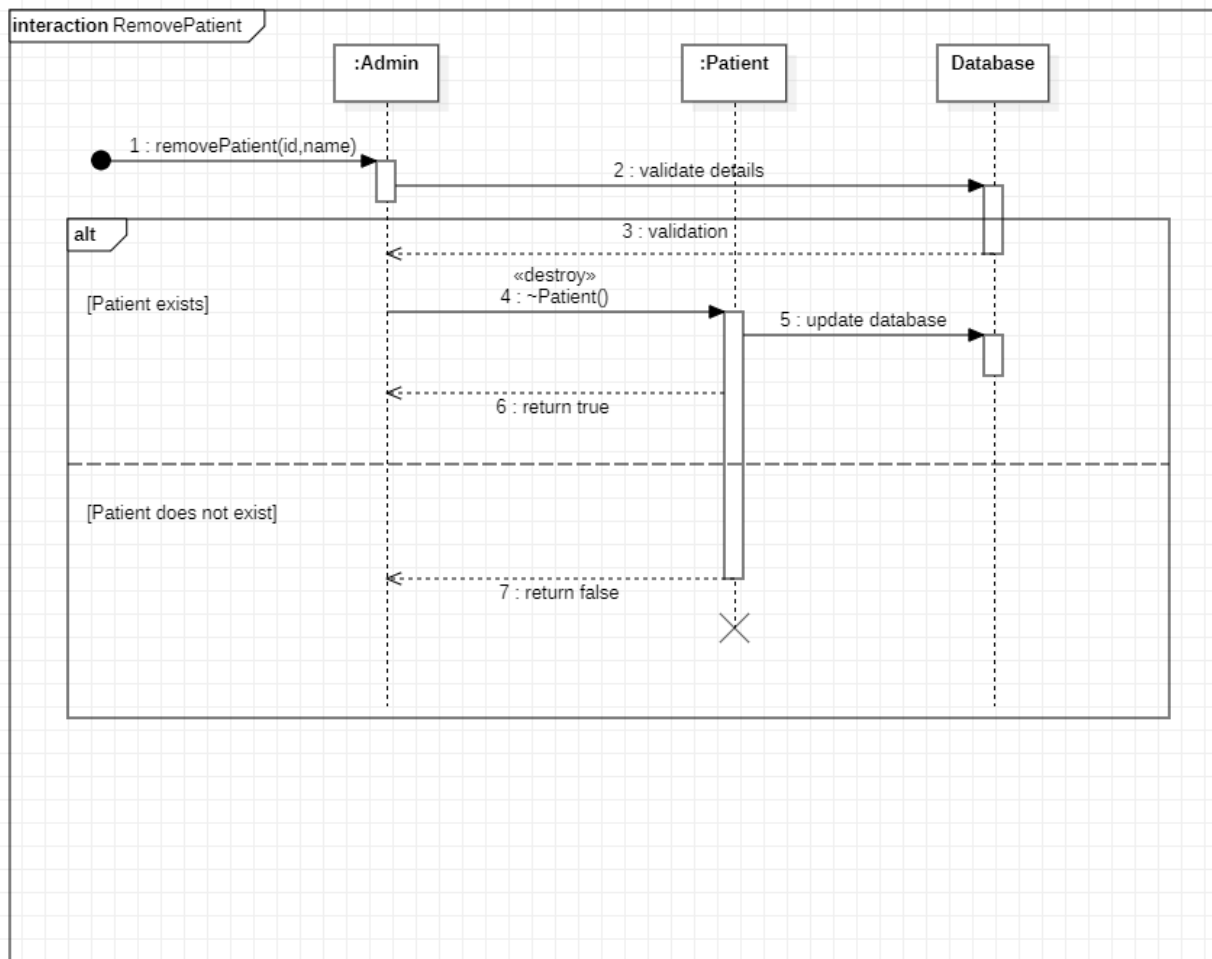
Design Sequence Diagram of UC-09 – Demand Doctor/AskForDoc:

interaction AskForDoc

:Patient

:Admin

1 : AskForDoc(spec)

alt

[Doctor available]

2 : AssignDoc(this)

3 : return true

[Doctor not available]

4 : return false
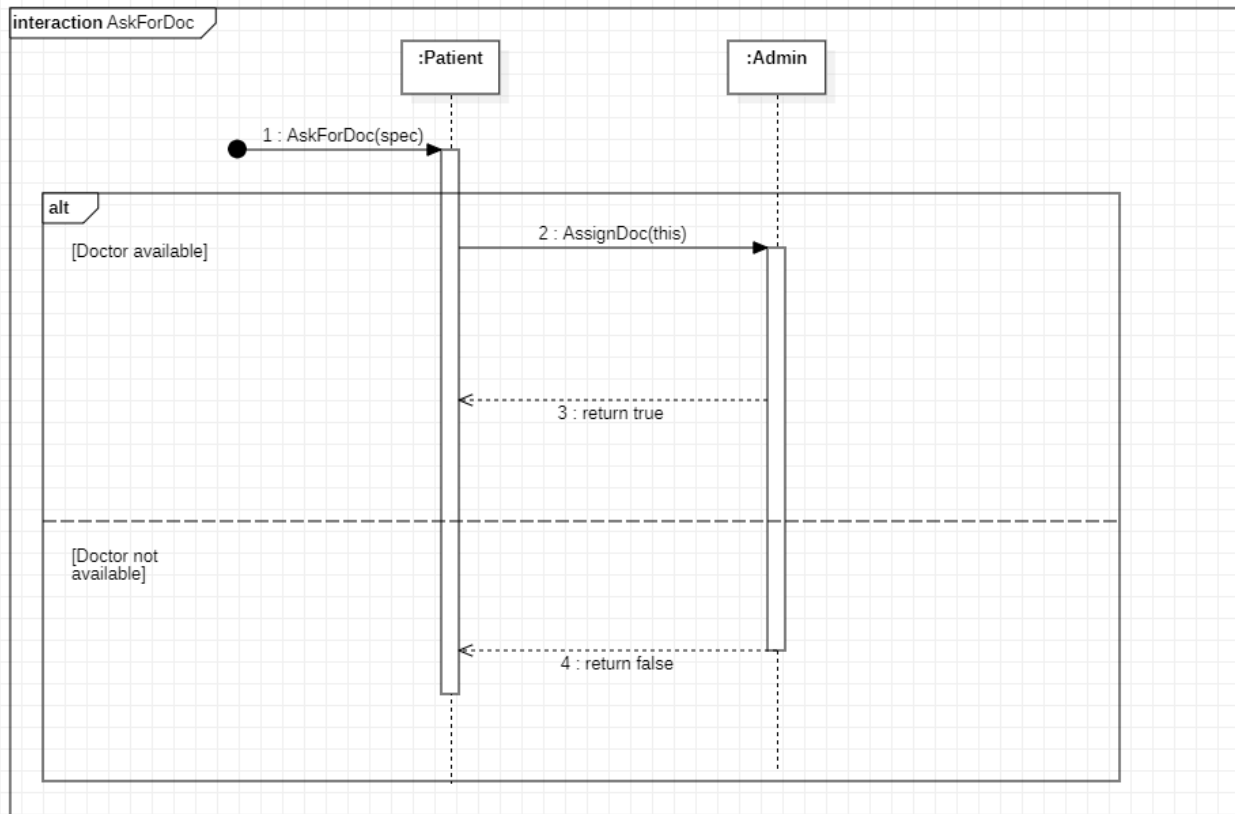
Design Sequence Diagram of UC-10 – Rate Doctor:
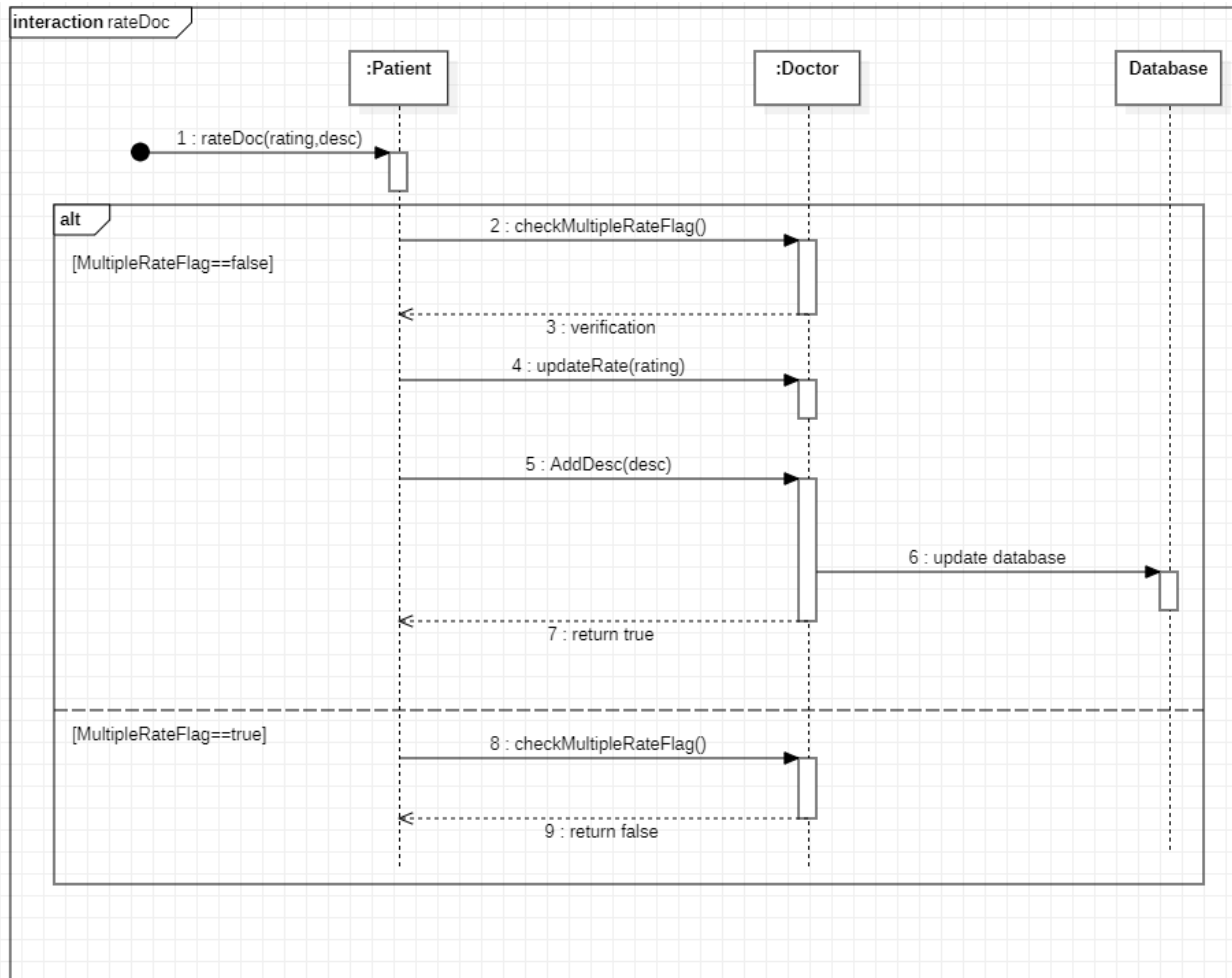
Design Sequence Diagram of UC-11 – Add Disease:
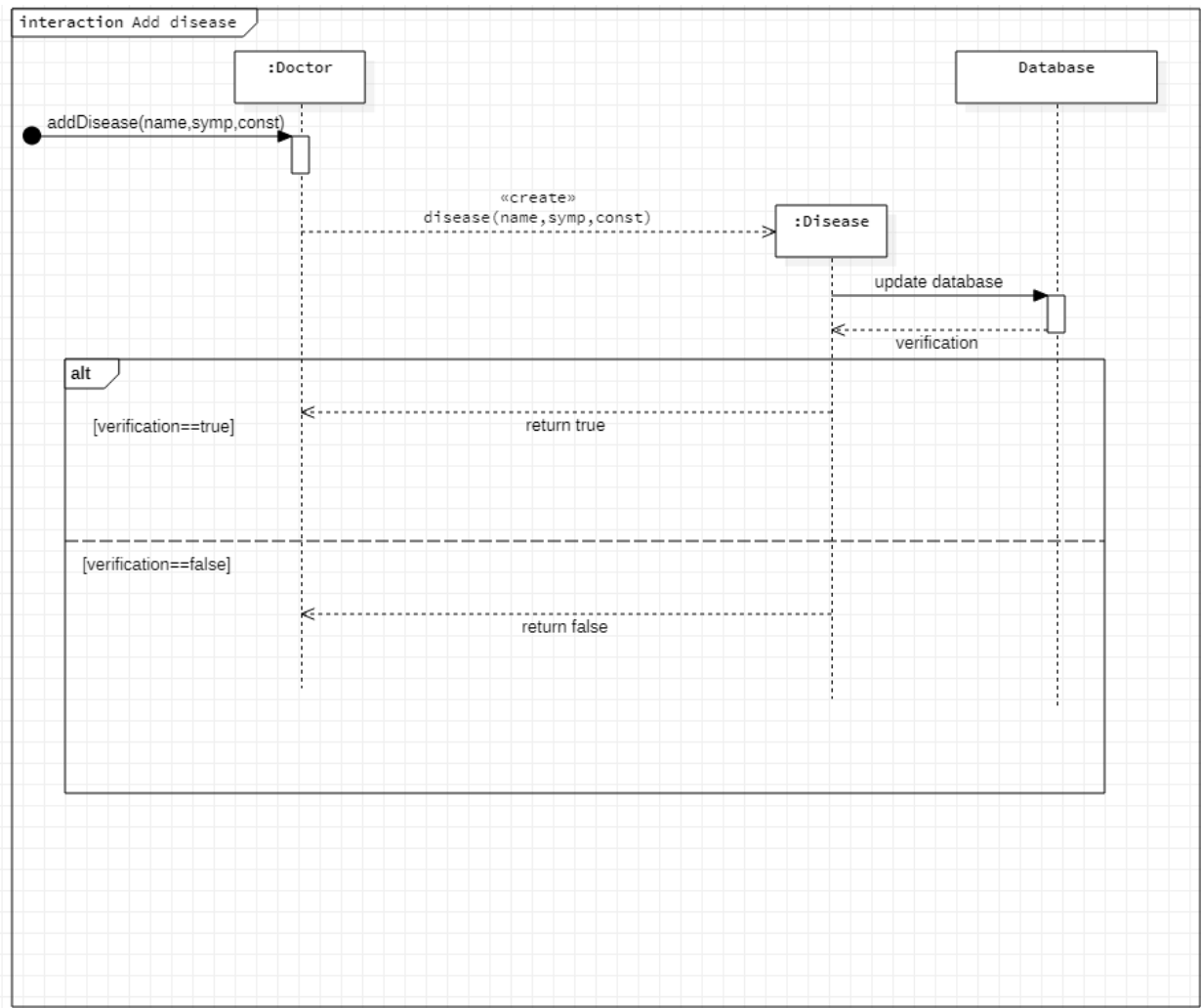
Design Sequence Diagram of UC-12 – Delete Medicine:

interaction Deletemedicine

:Pharmacist   :Medicine   Database

removeMedicine(id)

alt

[Medicine exists]

«destroy»
~Medicine()

update database

validation

return true

[Medicine does not exist]

return null

Design Sequence Diagram of UC-13 – Add Medicine:

interaction addMedicine

:Pharmacist   Database

1 : addMedicine(name,price,td)

alt

«create»
2 : Medicine(name,price,td)   :Medicine

[medicine does not
exist already]

3 : update database

4 : addedmedicine

5 : return true

- -

[medicine already
exists]

6 : return false

Design Sequence Diagram of UC-13 – Add Medicine:
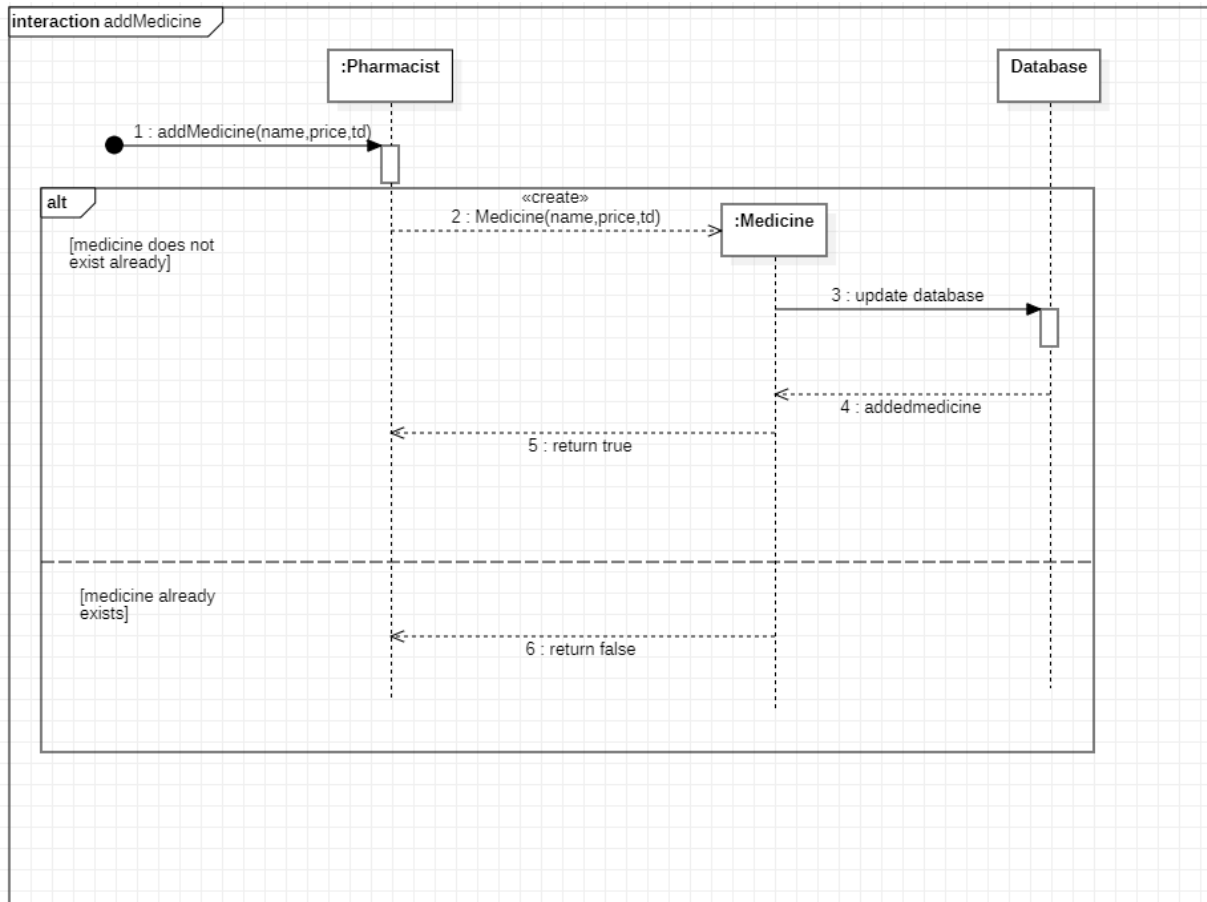
Design Sequence Diagram of UC-14 – Display Medicine:
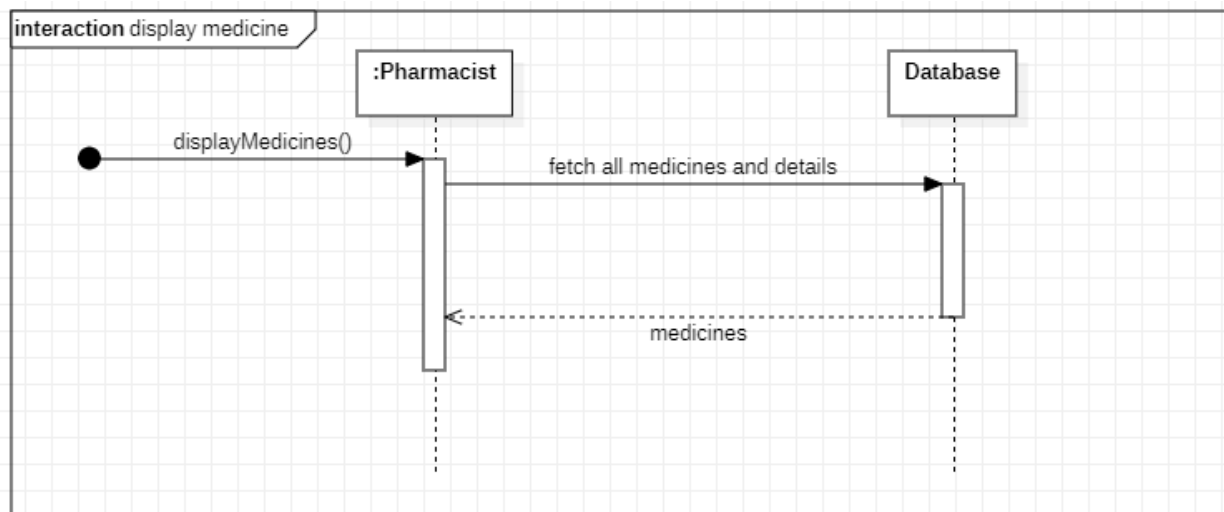
Design Sequence Diagram of UC-15 – Display Diseases:
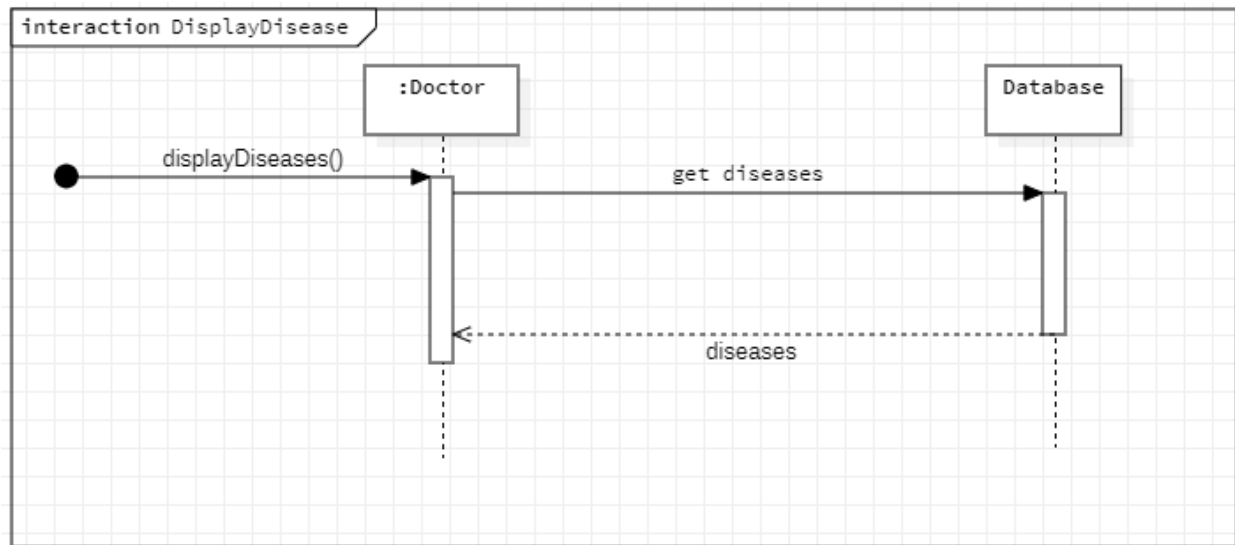
Design Sequence Diagram of UC-16 – Add Pharmacist:
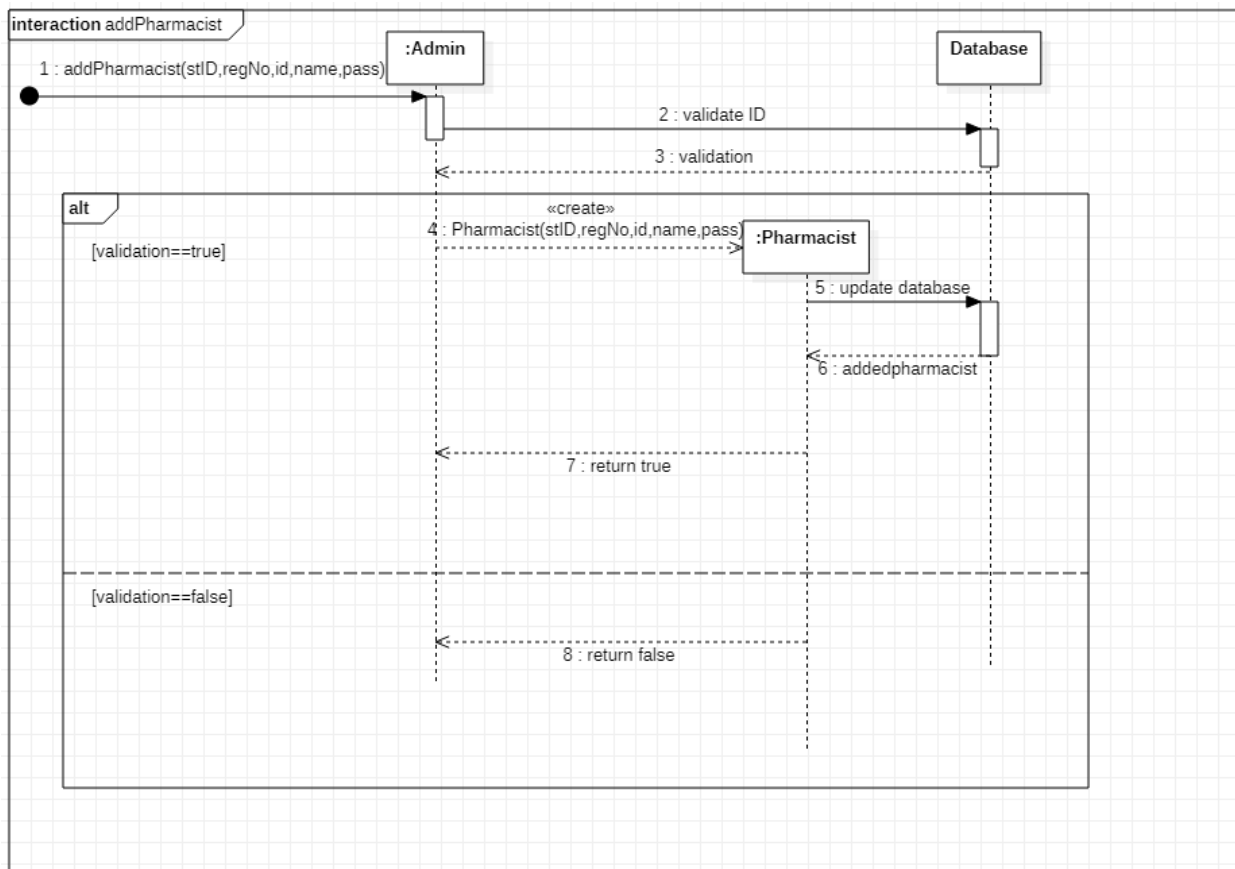
Prototype

Views/Web Pages of HealthCare Management System Web Application

Doctor Details View:

Add Disease UseCase View:

View Diseases UseCase View:

Pharmacist Details View:

Add Medicine UseCase View:

Remove Medicine UseCase View:

View Medicines UseCase View:

Patient Home View & AskForDoctor UseCase:
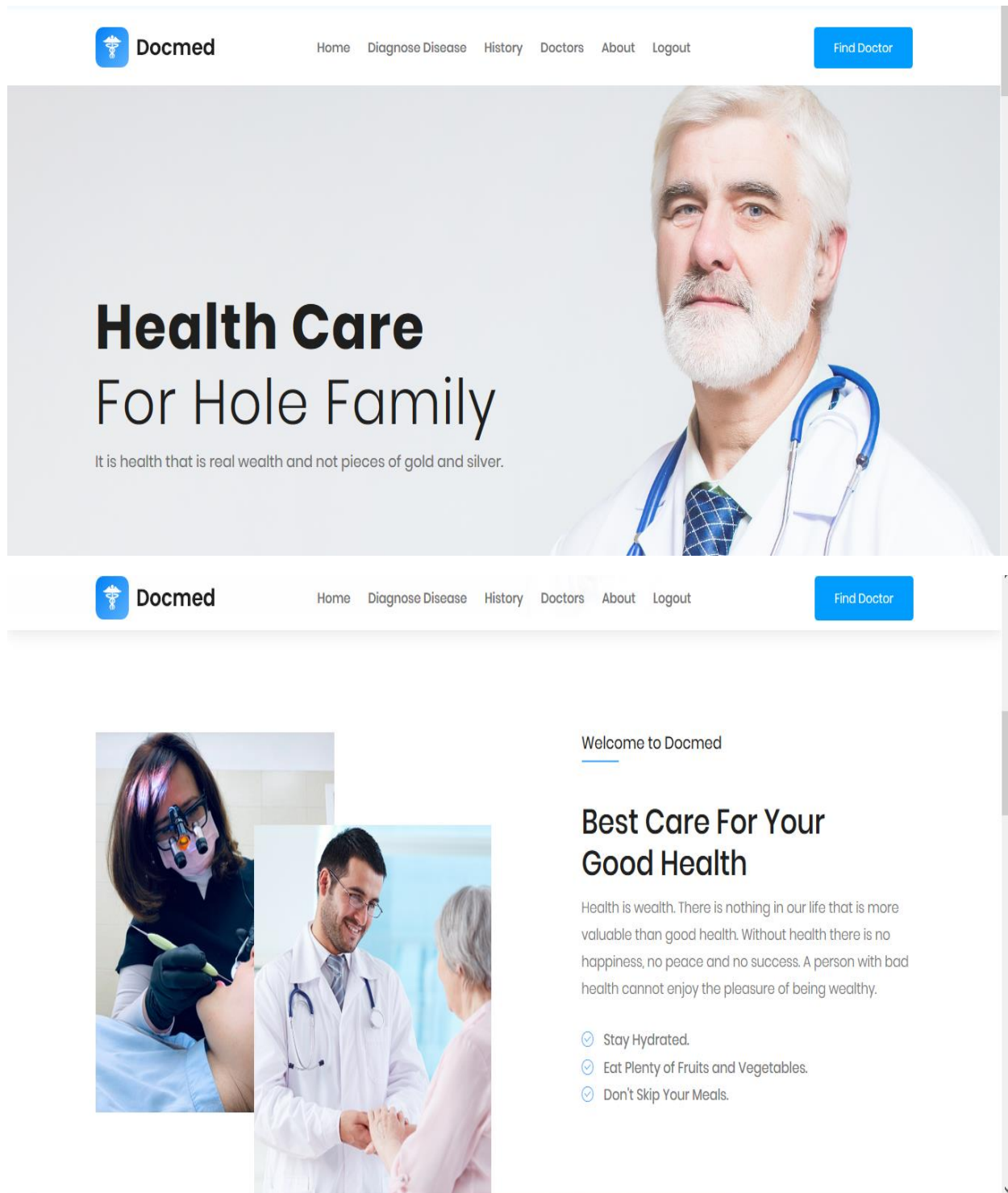
Our Departments

Keep your vitality.
A life without health is like a river without water..

Eye Care

Physical Therapy
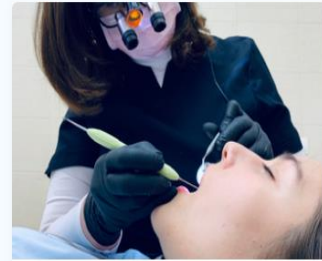
Dental Care

Expert Doctors

‹ ›

Mirazul Alom
Neurologist

Mirazul Alom
Neurologist
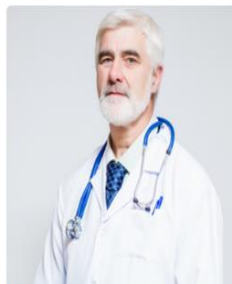
Mirazul Alom
Neurologist

Mirazul Alom
Neurologist

Diagnose Disease UseCase View:
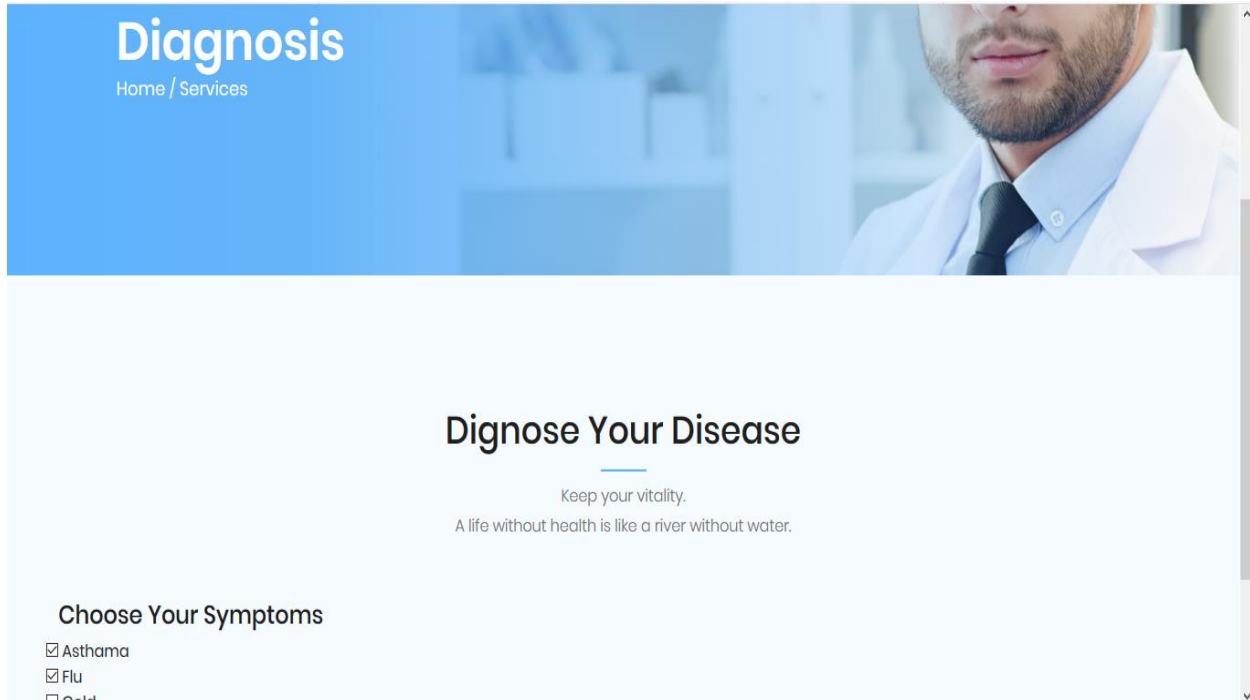
History of Patient View:
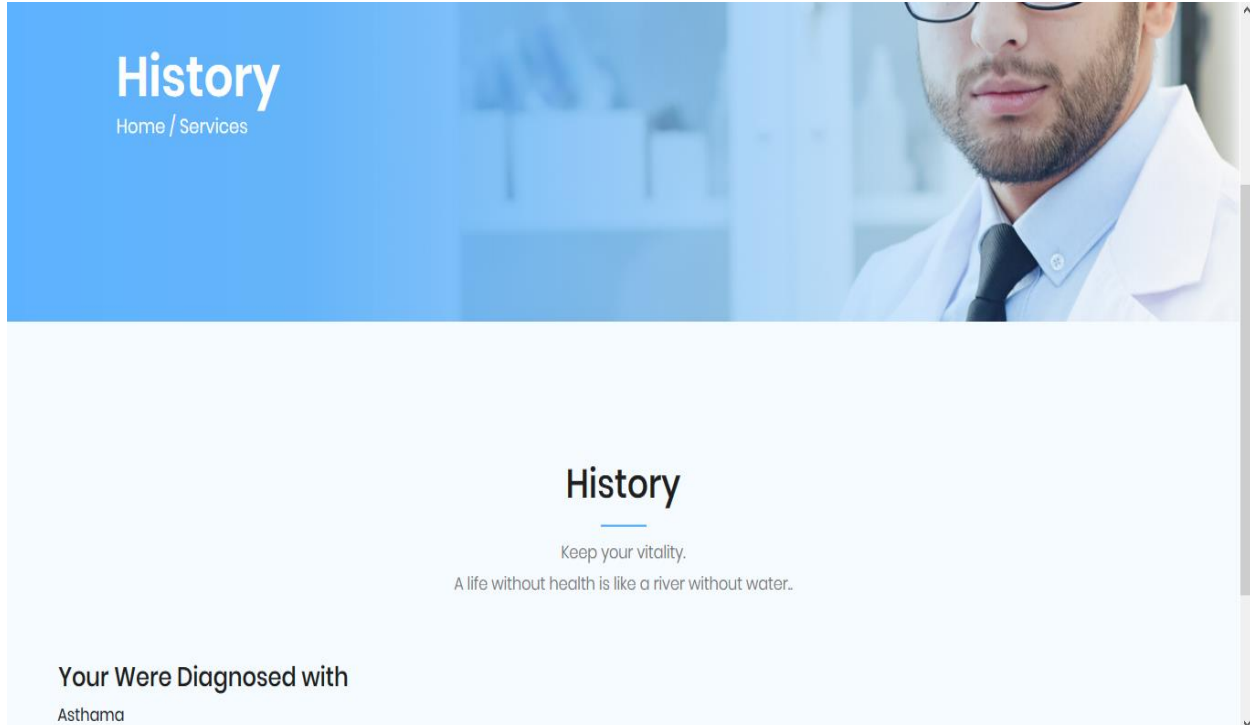
See Doctors View:
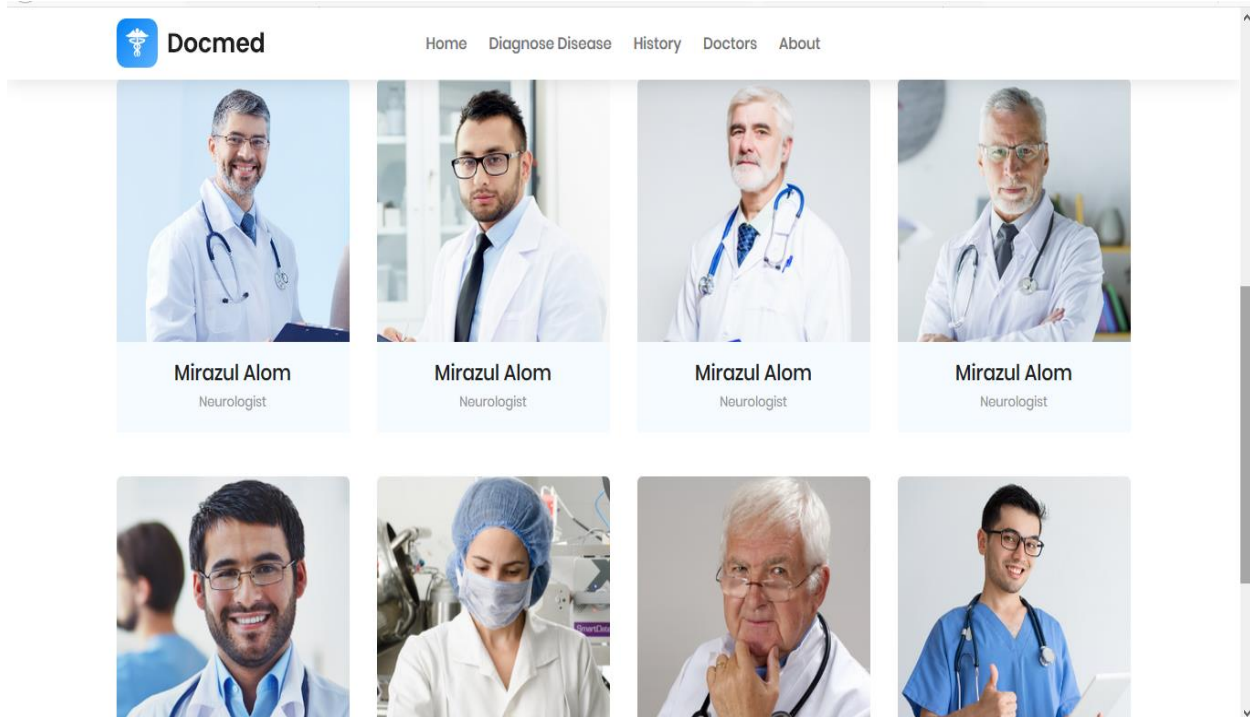
About Us View:
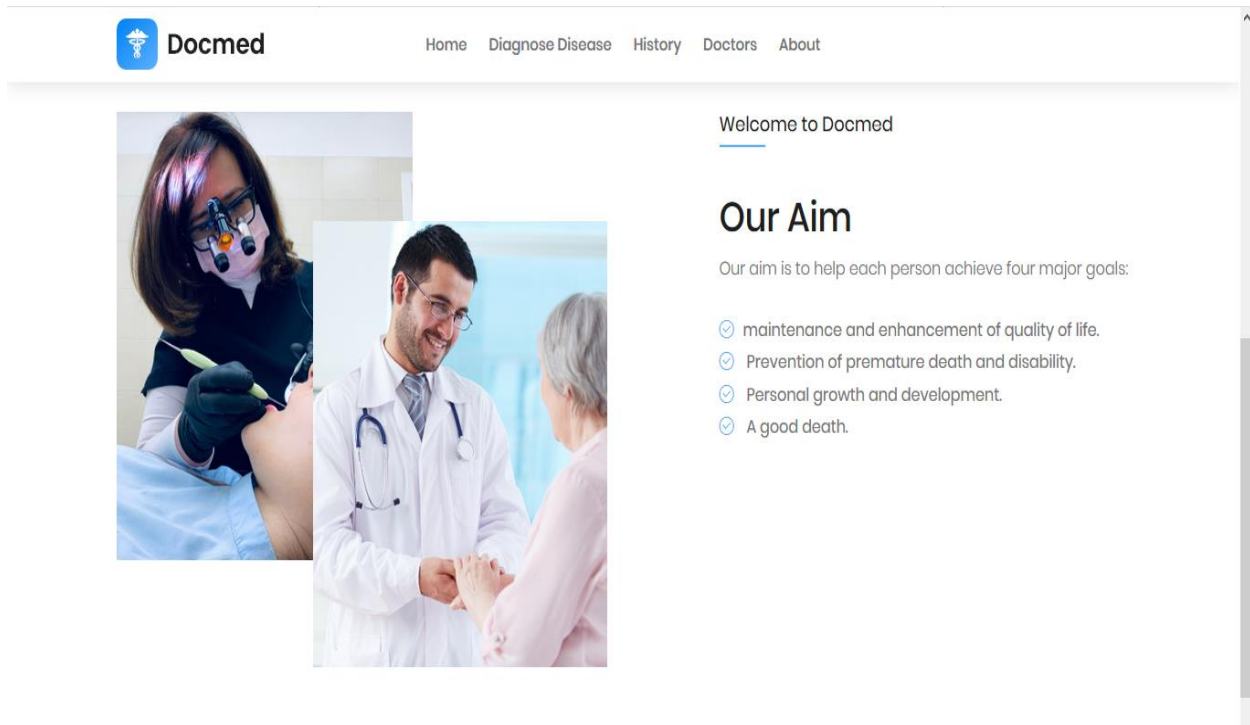
Chatting Area and Rate Doctor UseCase View:

Chat Here

Keep your vitality.
A life without health is like a river without water.

You can chat here with Doctor Ali

Rate your Doctor Here

Enter Description here...

submit

Signup UseCase View:

Sign Up

Please fill in this form to create an account.

Email

Enter Email

Password

Enter Password

Repeat Password

Repeat Password

☑ Remember me

By creating an account you agree to our Terms & Privacy.

Cancel   Sign Up

Login UseCase View:

Login

Please fill in this form to open account.

Email

Enter Email

Password

Enter Password
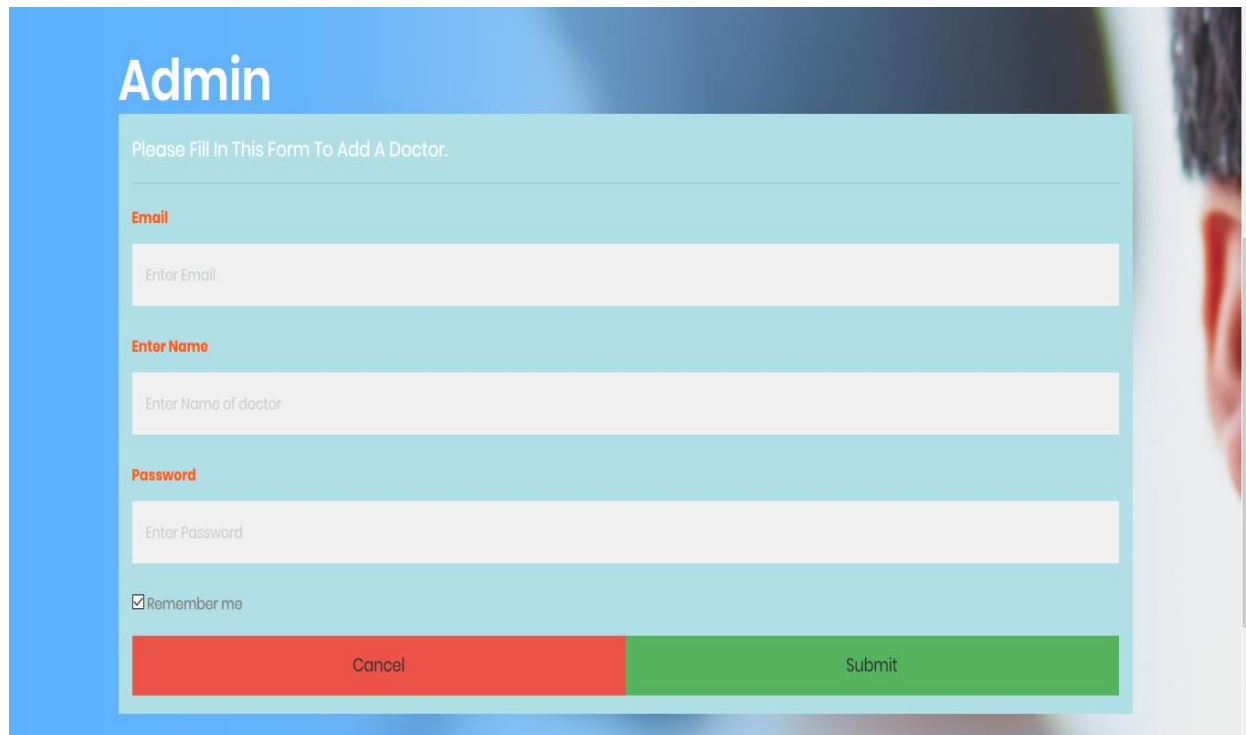
Login

Dont Have Account

Admin's View:

Docmed

AddDoctor   AddPharmacist   RemovePatient

RemovePharmacist   RemoveDoctor

Admin
Home /Admin

Add Doctor UseCase View:

Add Pharmacist UseCase View:

Remove Patient UseCase View:

Remove Pharmacist UseCase View:
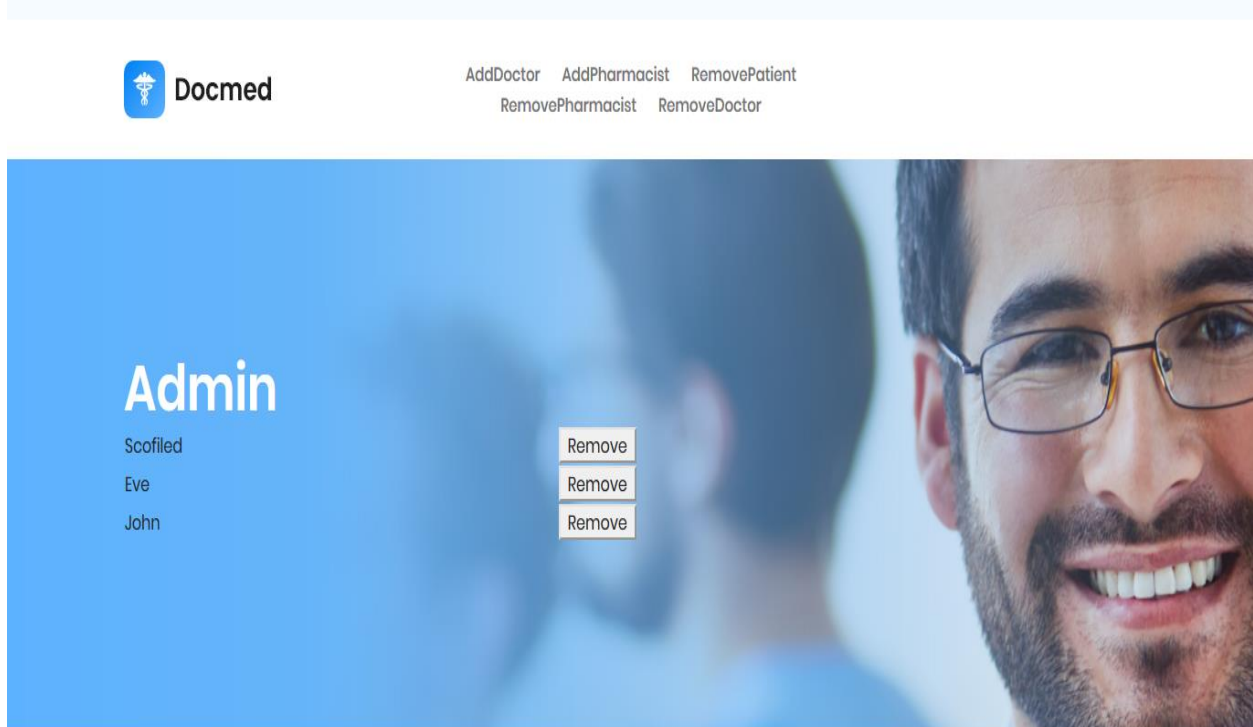
Remove Doctor UseCase View:
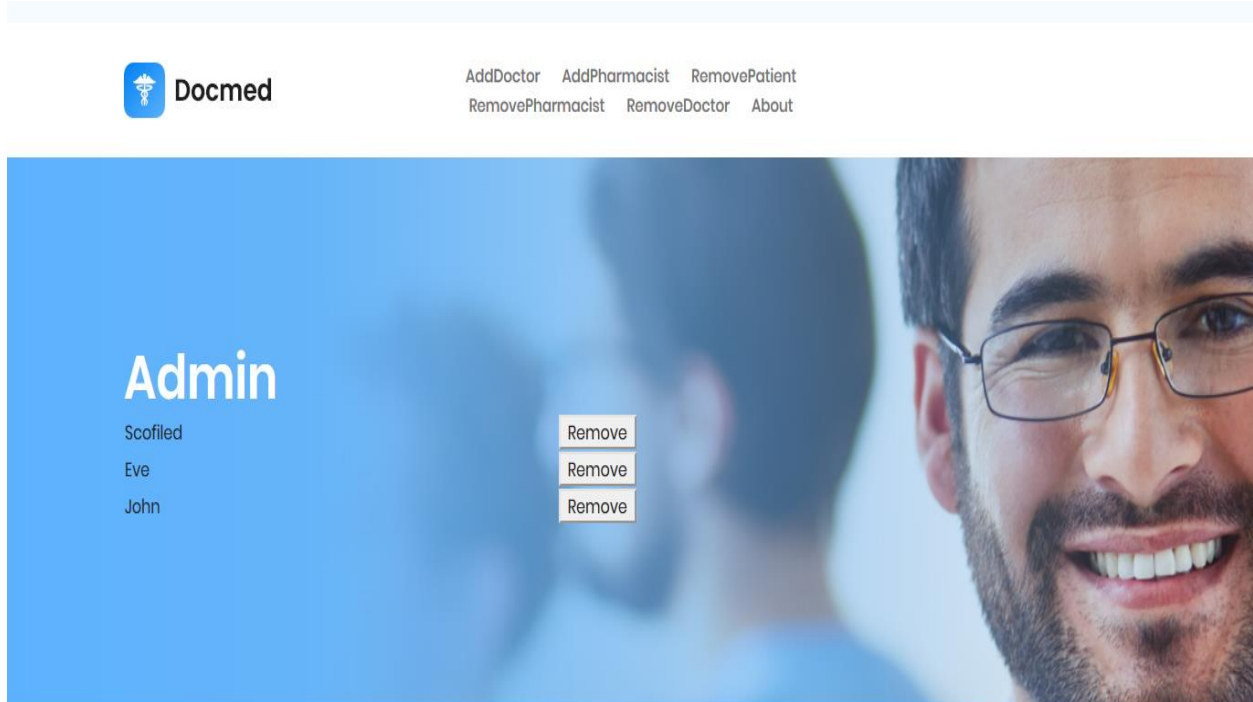
Diagnosis and Cure/ AskMedicine UseCase View:

Diagnosis

Home / Services

Diagnosis

Keep your vitality.
A life without health is like a river without water.

Your Diseases are

Your Medicines

Your Prescription

Your Constrain on Food