

# MEDUP

Group18 | 46457

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### OUTLINE

### INTRODUCTION

Post-procedure care often often involves a breakdown in communication between patients and healthcare providers, resulting in delayed interventions, increased anxiety, and compromised health outcomes.

MedUp revolutionizes post-procedure care by linking patients and healthcare providers, ensuring quick responses and tailored care, ultimately improving the healthcare experience for everyone involved.





### METHODOLOGY

MedUp follows the Agile development methology:

O1 Flexibility

O2 Collaboration

O3 Faster time to market

iteration number	Module/Subsystem	Duration
1	Registration, Login, Logout, Patient and Healthcare provider profiles.	2 weeks
2	Appointment scheduling, Medication management and Communication.	1 month
3	Agora, yakeen and SMS gateway integration.	1 month
4	Al Chatbot	3 months

### API'S





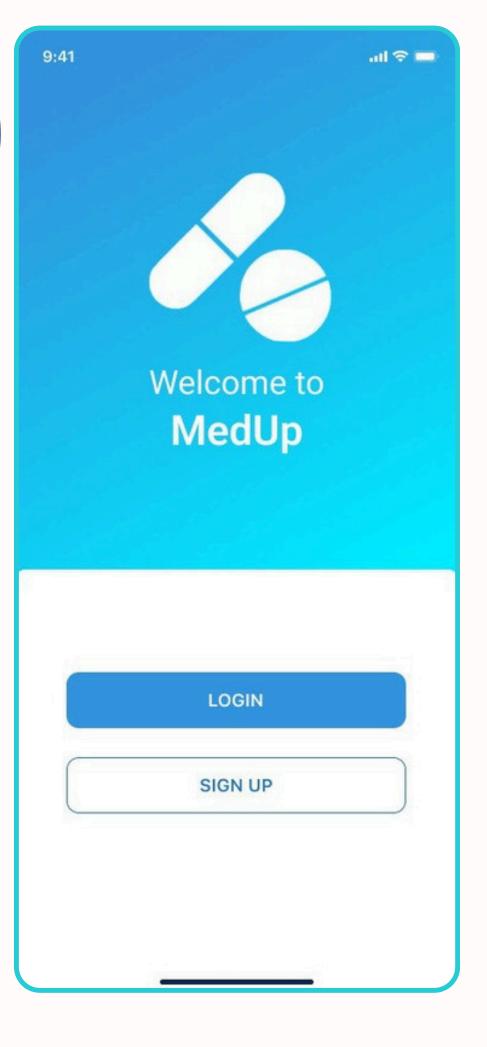


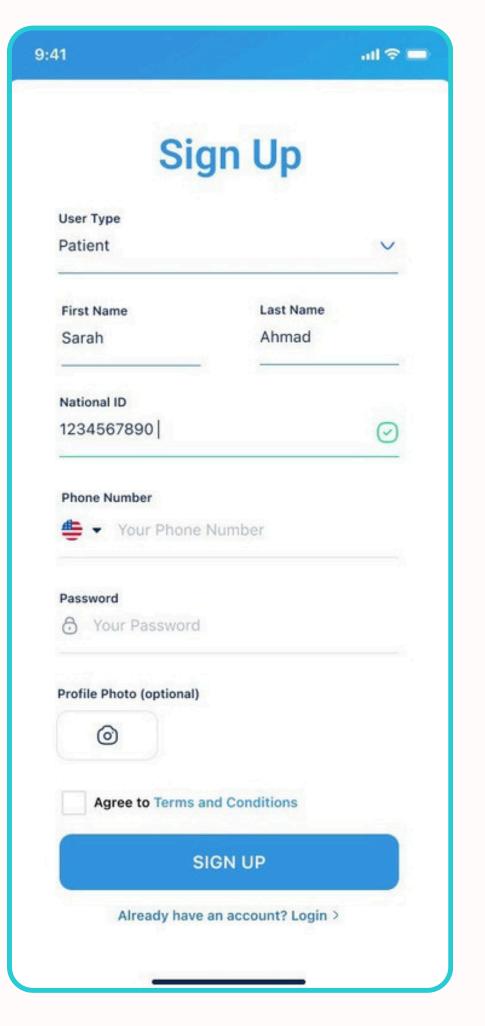


# USER INTERFACES

### OUR SOLUTION

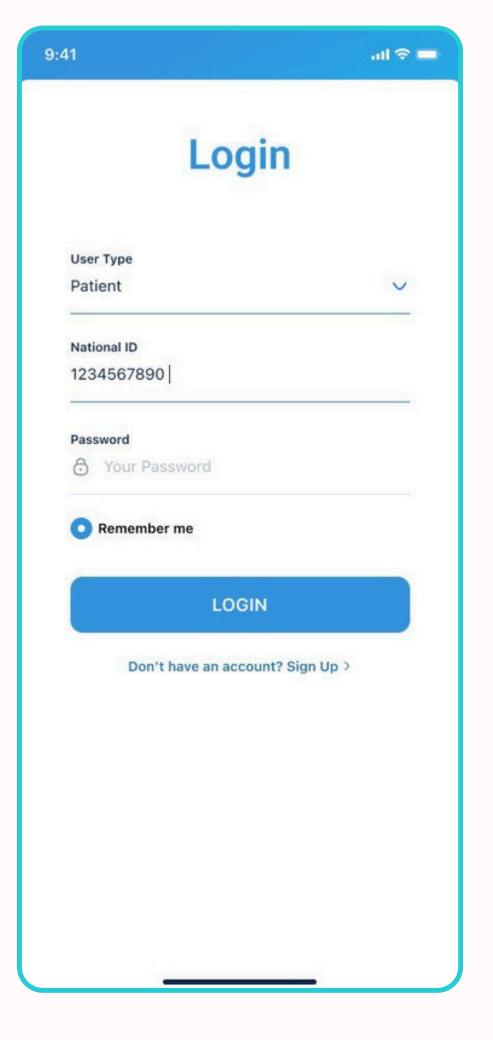
welcome page

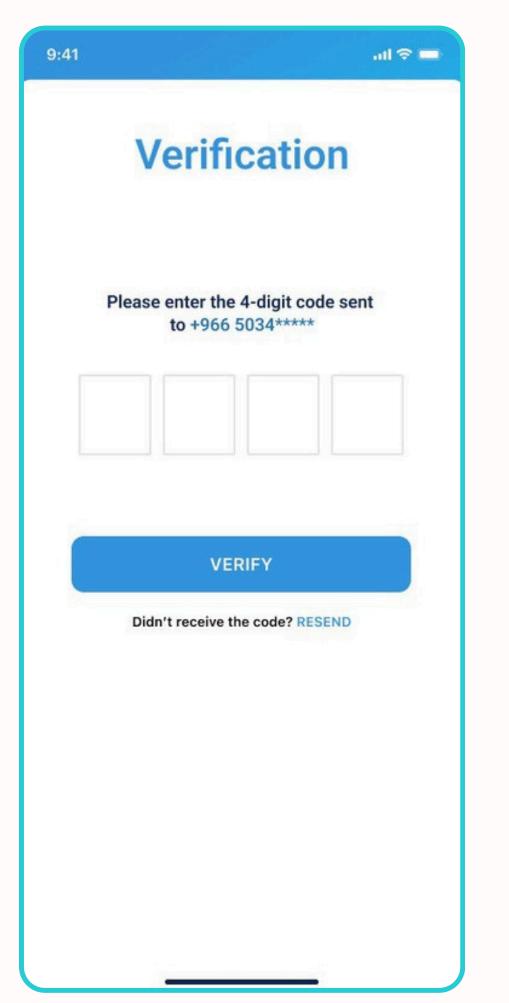




SignUp page

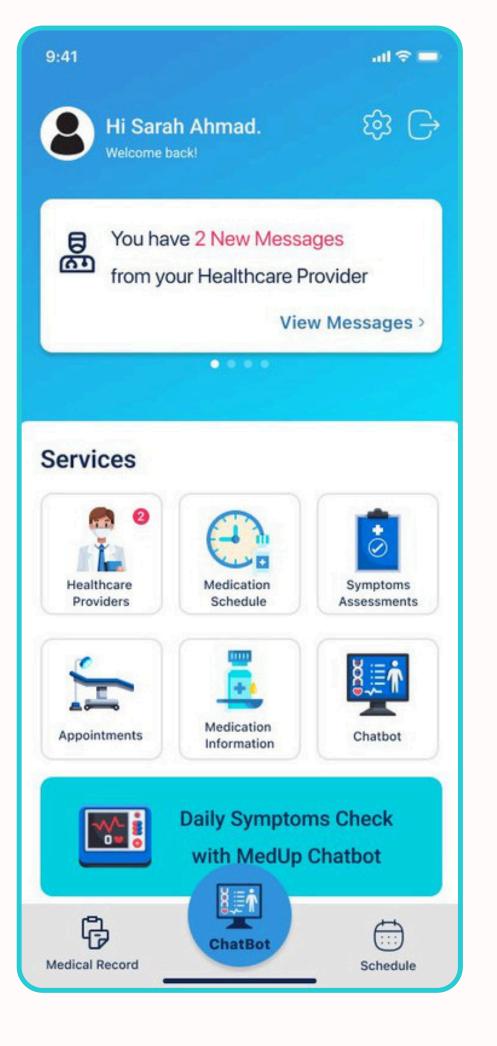


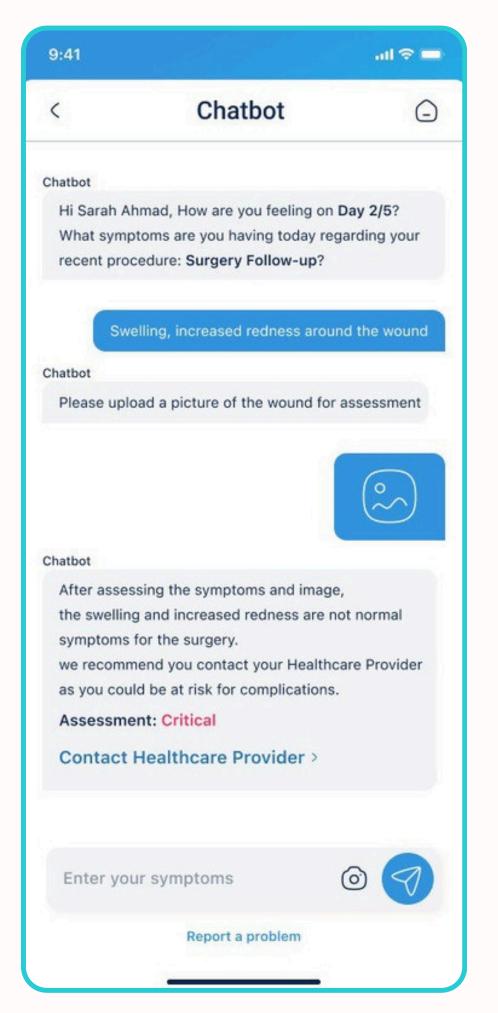




Verification page

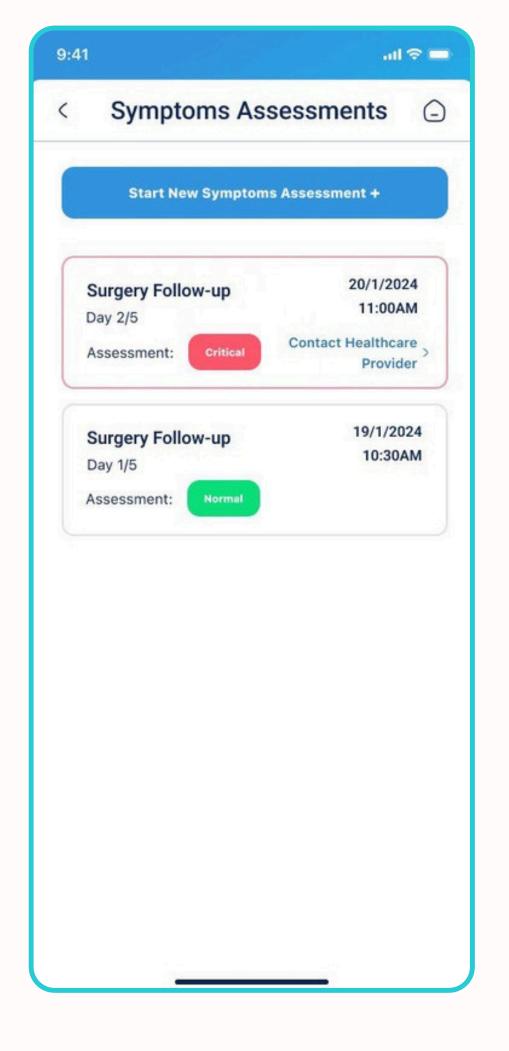


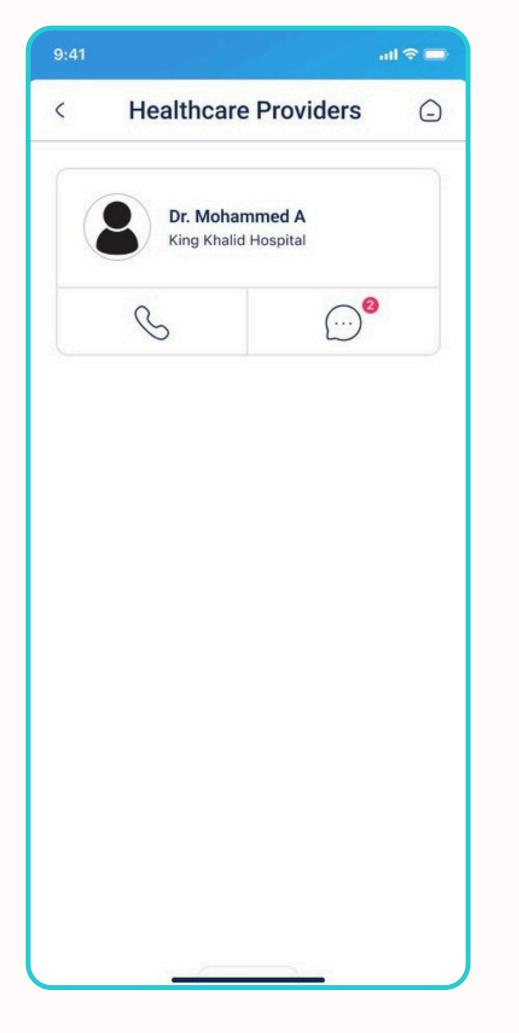






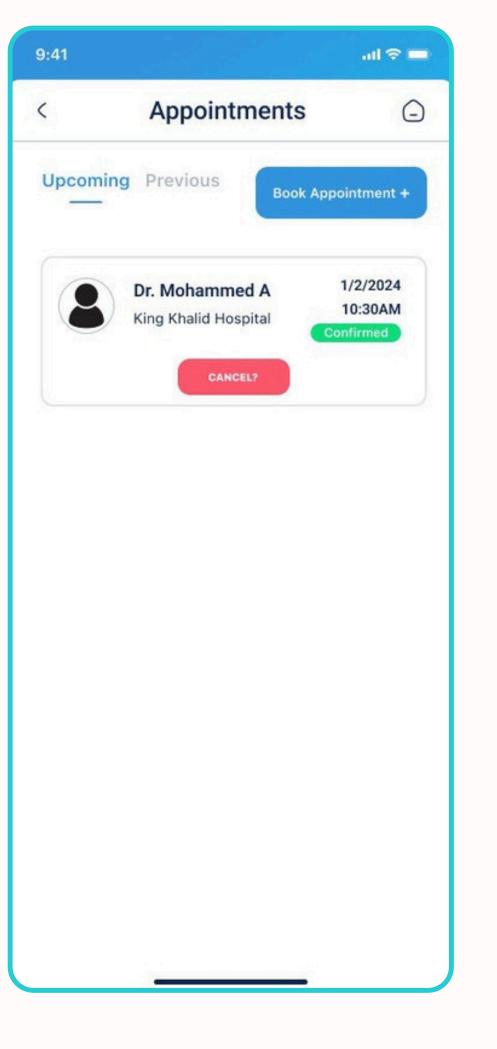
patient symptoms assessments page

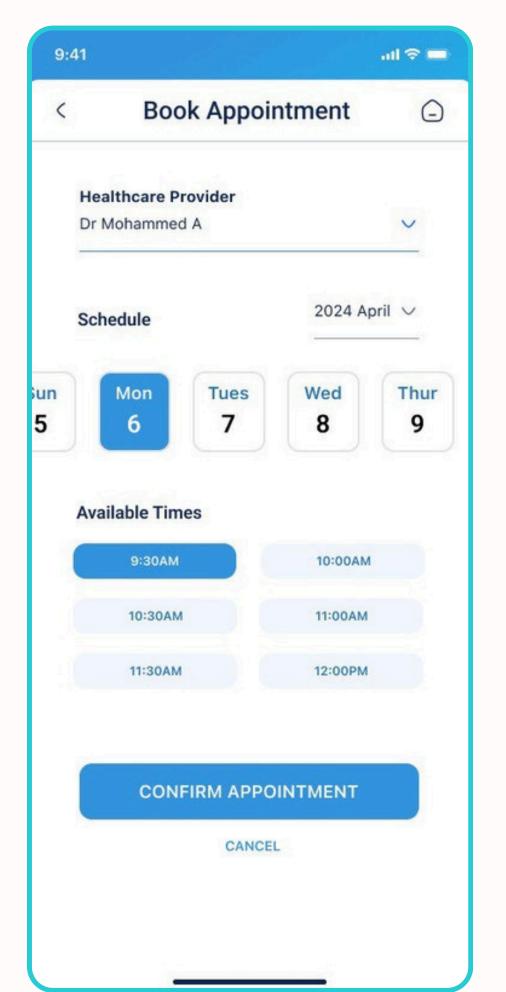




Patient healthcare providers page

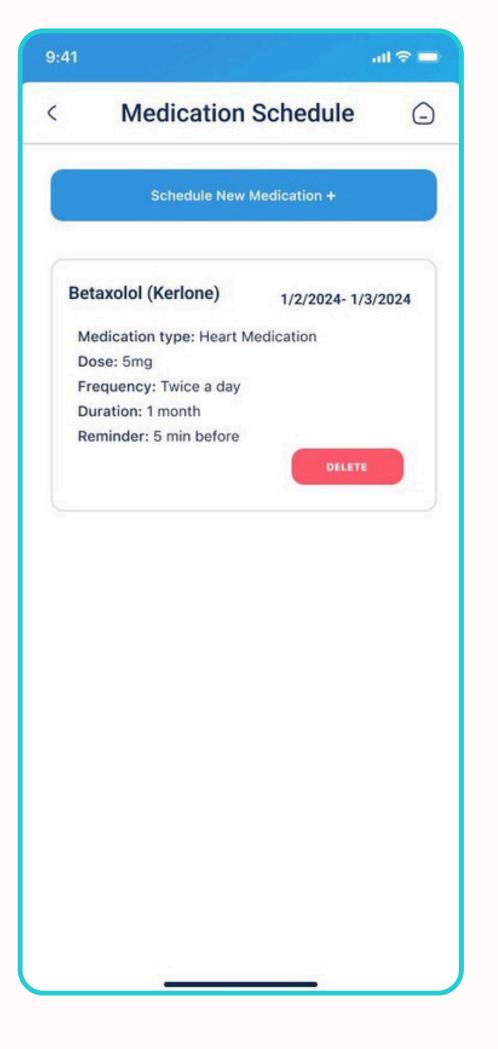


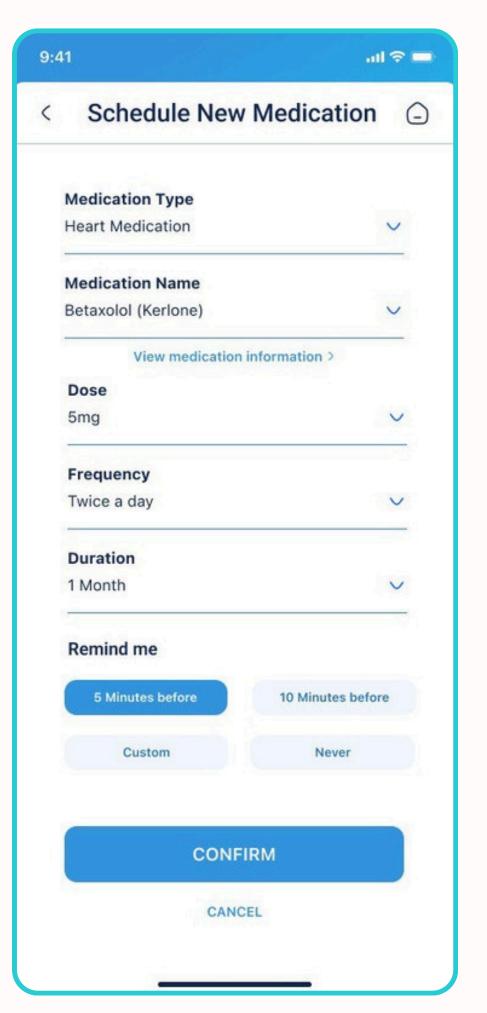




patient book appoin page

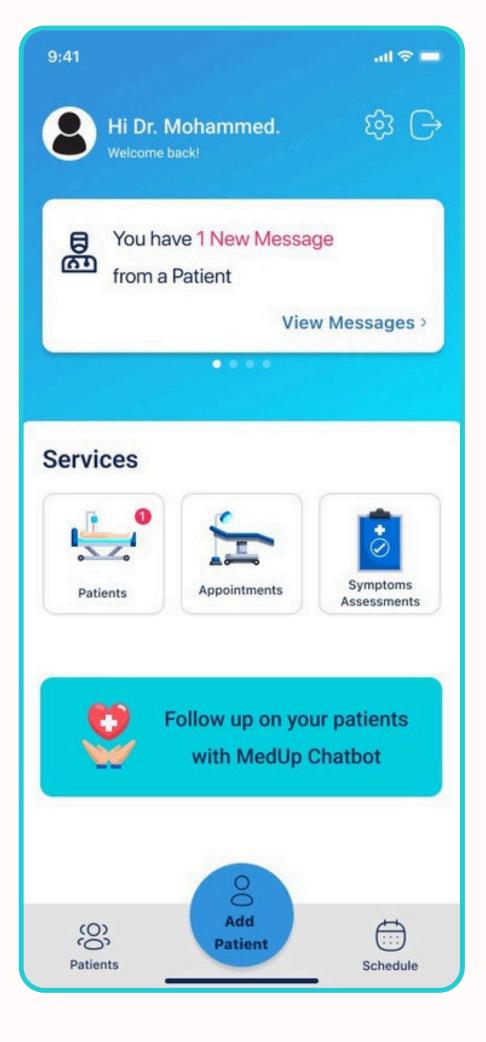
### Medication Schedule Page

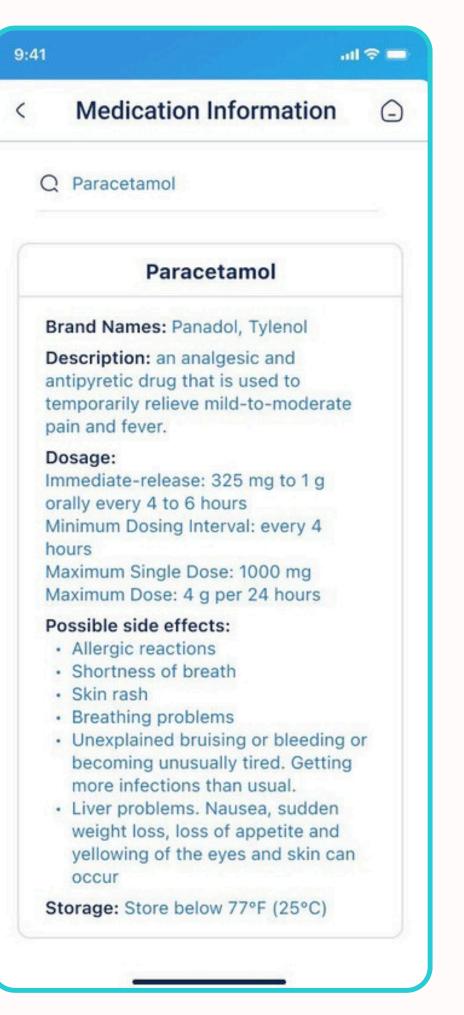




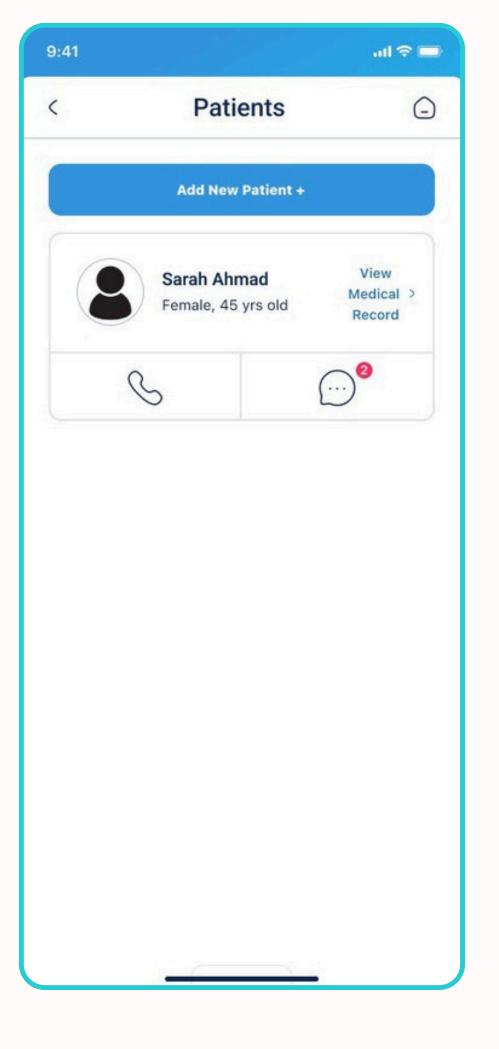
Schedule New Medication Page

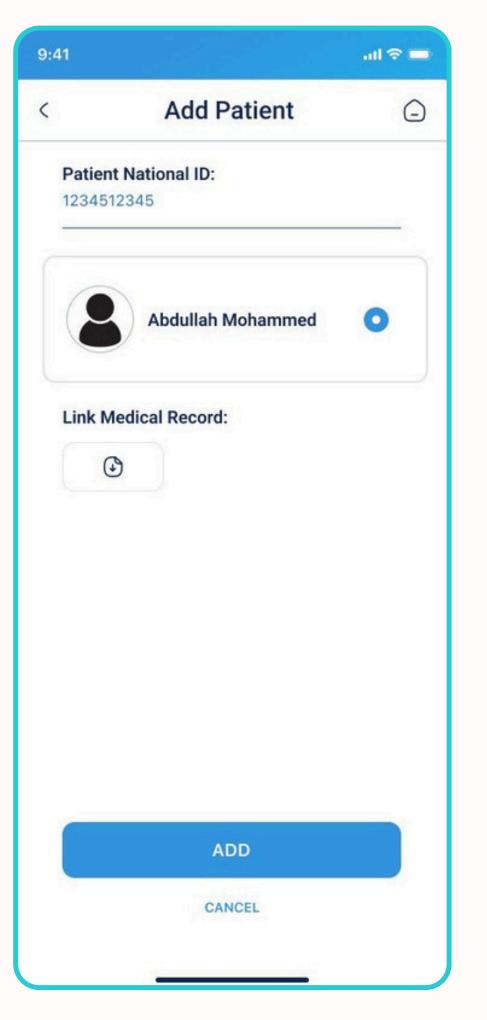






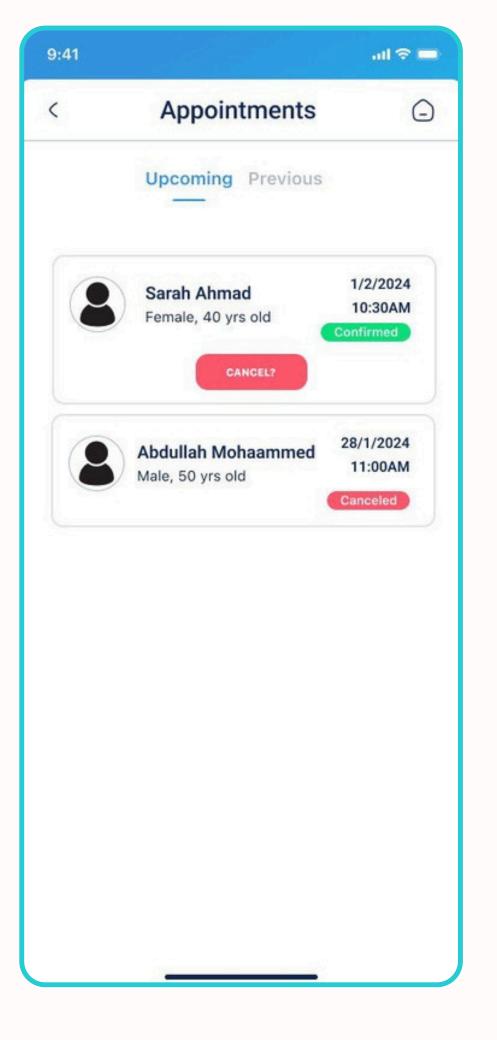
Medication Information Page Healthcare Provider Patients Page

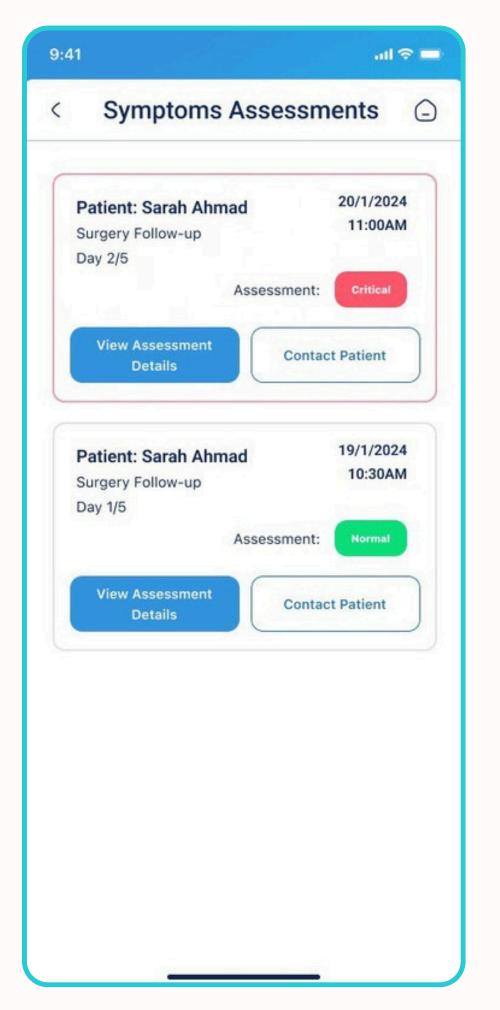






Healthcare
Provider
Appointments
Page





Healthcare Provider
Symptoms
Assessments Page

# DIAGRAMS

### Medup **USECASE DAIGRAM** medication information Schedule new medication <<extends>> medications <<extends>> Symptoms SMS System View upcoming previous Create account Log in healthcare provide View patients Link patient medical records

Symptoms Assessments

### **CLASS DAIGRAM** MedUp Class Diagram edisterfacely) Registeration Medug/View · displayRegisterationForm(); void · displayLoginForm(): void · displayAppointments(): void Pat ent/becord . displayAssessments(): void + reg sterPatient(): void + patient Patient displayAssessmentDetails(): void + reg sterHeathcareProvider(); void + symptomsAssessments: . displayMedSchedulell: void + oginPatient(): void + displayPatients(): void + oginHealthcareProviderQ: void displayHealthCareProviders(): void displayErrorMessage(): void + ogout() : void + verifyPhoneNum(): boolean displayAlens(): void + verifyNationalID(): boolean · displayScheduleMedicationForm() : void + displaychattot() void displayMedinfo(): void \* submitWoundImage(): void displayConfirmMessage(): void \* scheduleNewMed cation(): void . post/type, name, dose, frequency, Patient HealthCareProvider duration, reminder): void + confirm(); void . diasplayNewPatientForm(); void - provider(0) nt reservedAppointments:Appointment] + phoneNumber string medicationsList:Medication[] \* pat ents:Patient() · patientRecord: PatientRecord \* reservedAppointments:Appointment[] MainController + viewPatientRecord(): PatientRecord · addPatientFollowUp(Patient p. String viewMedSchedule(); type, int day/Count): boolean MedicationManagement . ViewPatientRecord(patient) void + getAppointmentReminder(): void \* viewAppointments(); void viewAppointments(): Appointment \* registerUser]userType, fname, Iname, nationa ID, phoneNum, pass. photol: wold \* loginUser(userType, nationalID, pass): void + v ewAssessments(): void + v ewMedicationInfo(): void Communication . setReminder(): Notification \* v ewPatientRecord): PatientRecord +OSexdema 20+ . chalbotipatientRecord pri void Agora - addMedical on(type,name,dose,frequency,duration,remind): void . deleteMedication(): void capture/Woundimage(): vo d + callService(): void \* cancelAppointment(): void - message/service(): void + contact(); Void . contact() yMessage(): void addPatientFoliowUp(): void addMedRecord(): void Appointment petAppointments(): Appointment() . BookAppointment Date d, Time t, HealthCareProvider hpj: boolean \* healthcareprovider.HealthCareProvider + makeCality void CONSISTA NO. - patient Patient \* sendMessage(): word SMSGateway \* v:ewAssessmentDetails(SymptomsAssessments smi: void date:Date + time:Time MedicationManagement · status: String Blackboard · medication/schedule: Medication() =sendSMSreminder(): vo-d - Aucts: File soution: File addMedication(Medication medication): void + deleteMedication(Medication m): boolean initiate(); void. + update(): void · getSolution(): boolean Medication Chatbot BlackboardController + name: String + dose:String + quantity-double + execute(c File -

\* saveAssessment(File); void

Symptoms/CS

followUpType: String dayCount: int

\* init ate(): void \* matchtrspect(): void

· getAssessment(): File

ImageProccessing

\* processWoundImage(File):

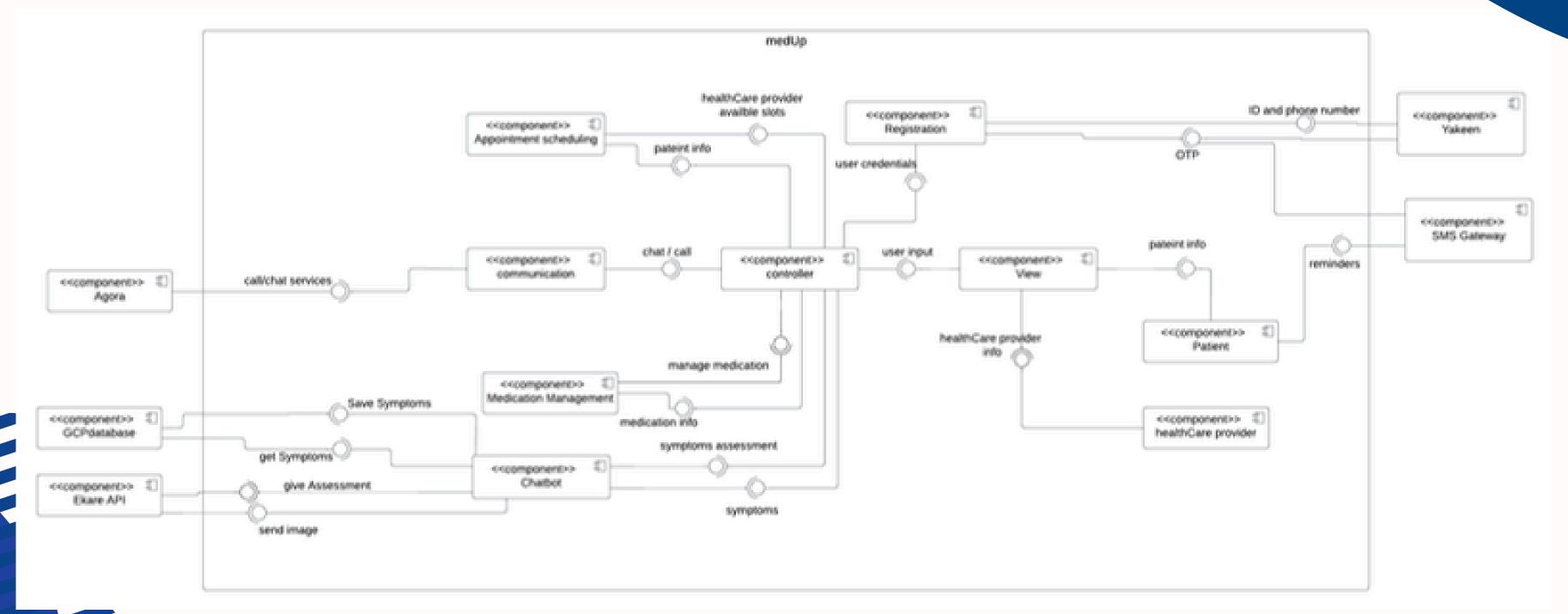
+0 GerdomaD/0

+ patientinput(String str): void

+ uploadWoundImage(): Fire + patientOutput(): void - Irequencyclot

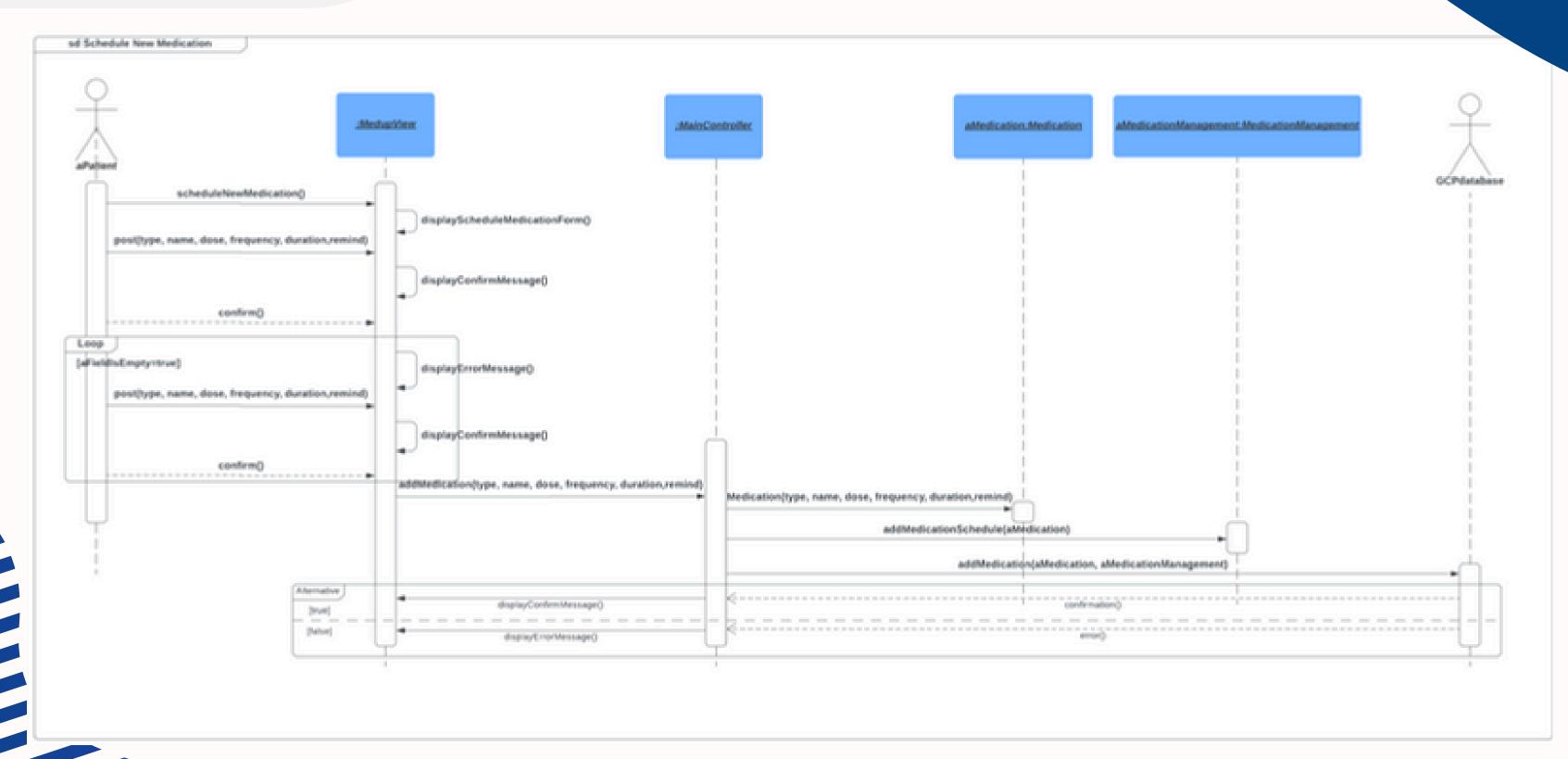
+Medication(type,name.dose,frequency,duration.remind):void

### COMPONENT DAIGRAM

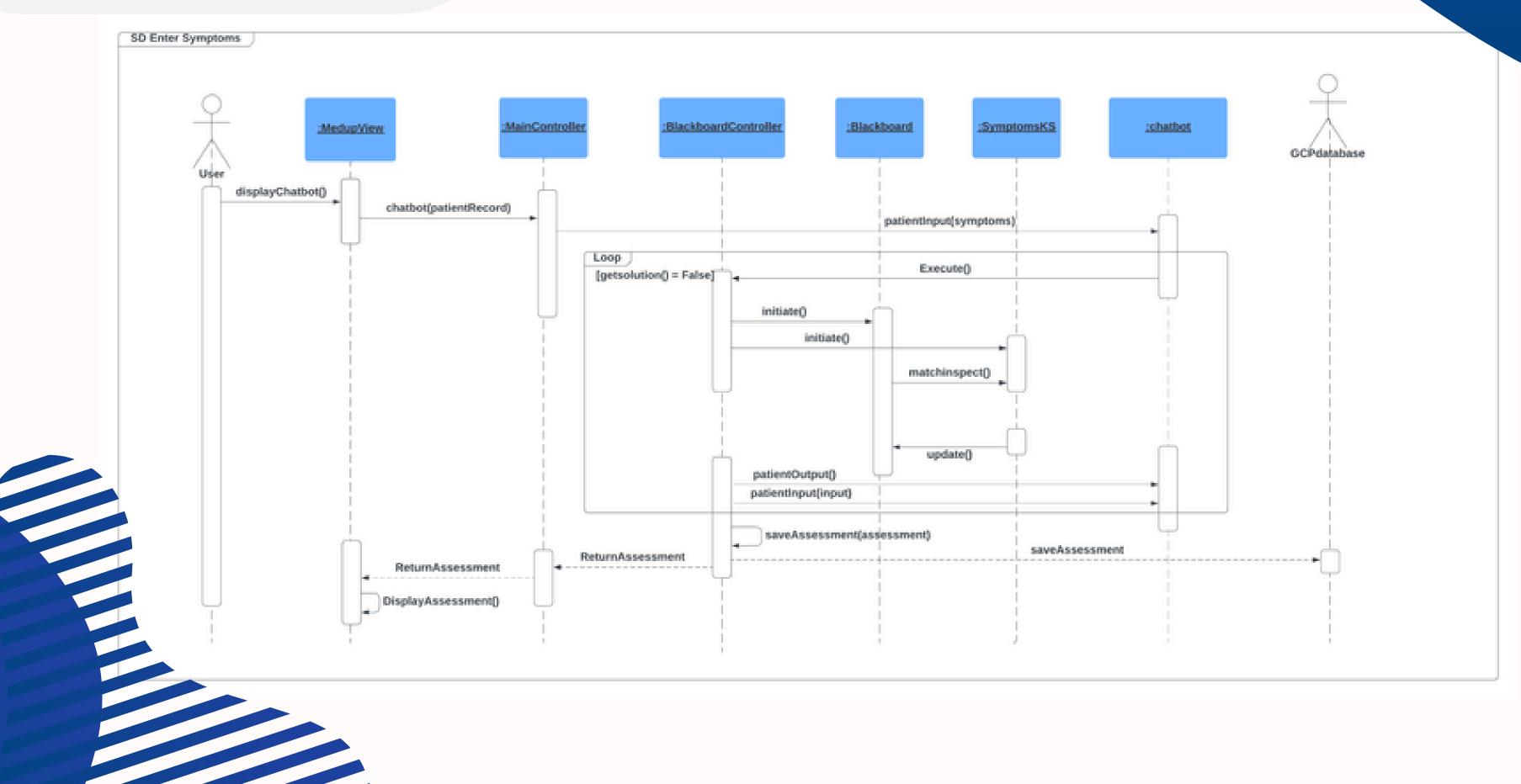




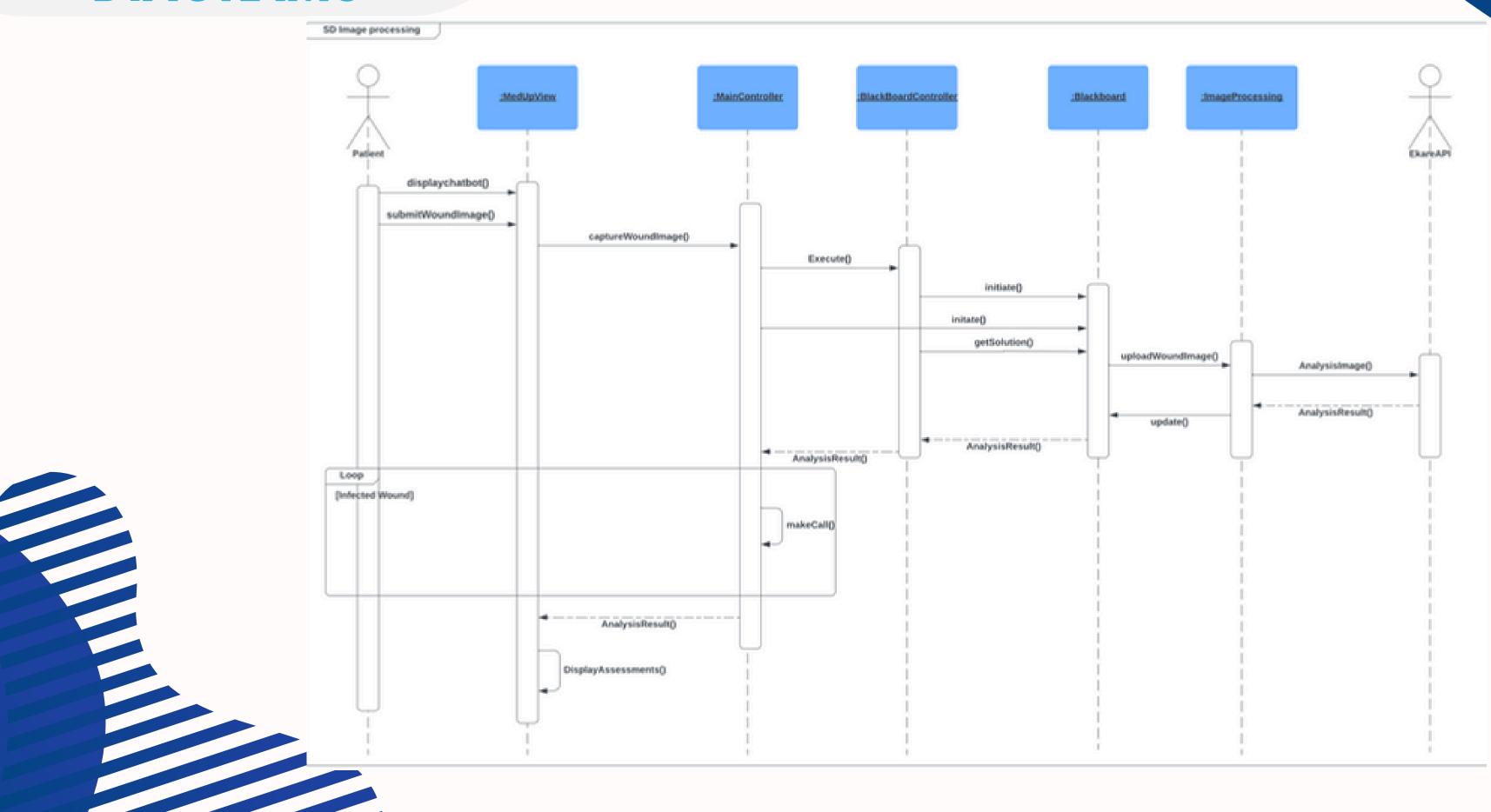
### SEQUENCE DIAGRAMS



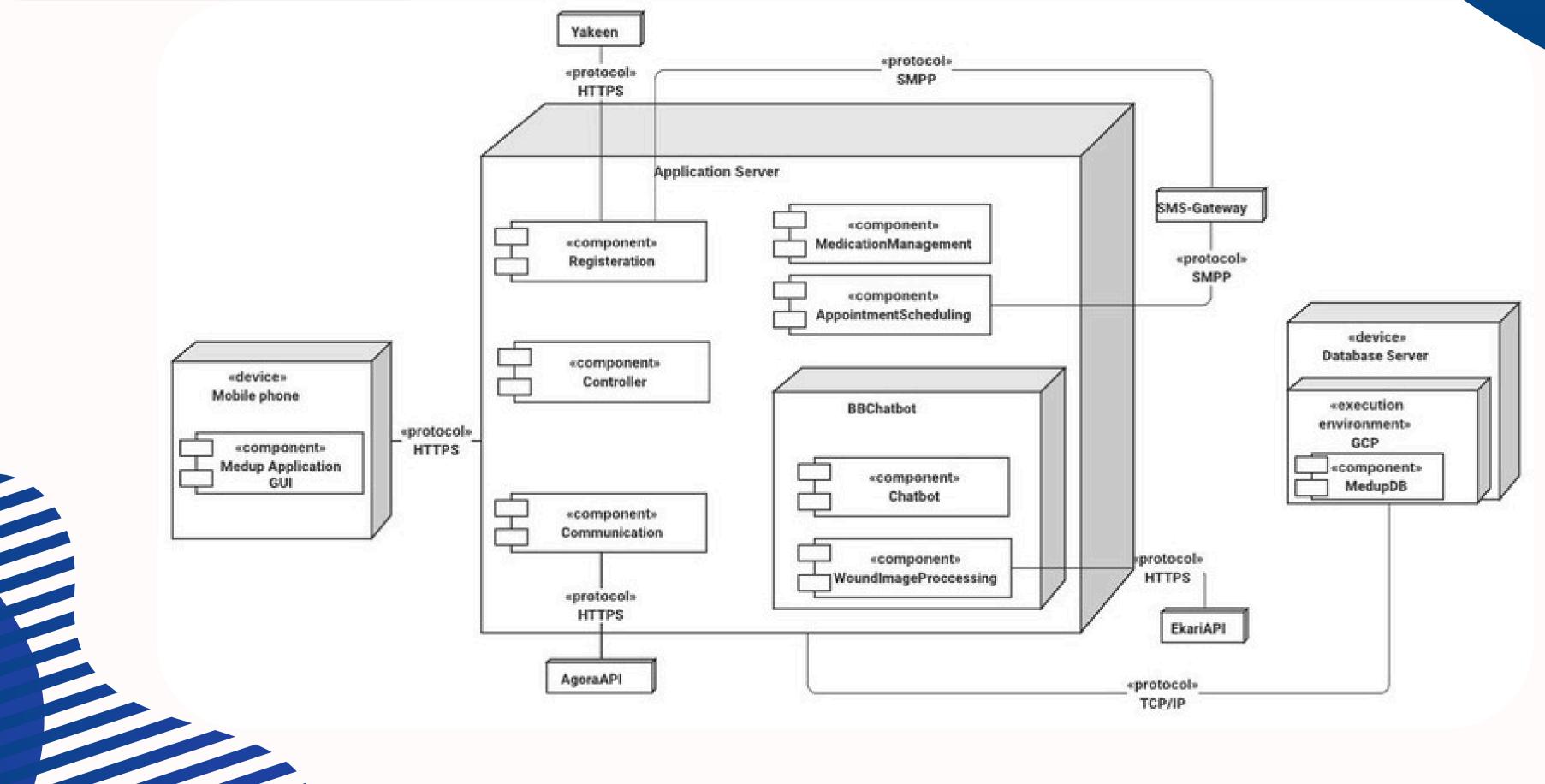
### SEQUENCE DIAGRAMS



### SEQUENCE DIAGRAMS



## DEPLOYMENT DIAGRAM



### **ARCHITECTURE STYLE**

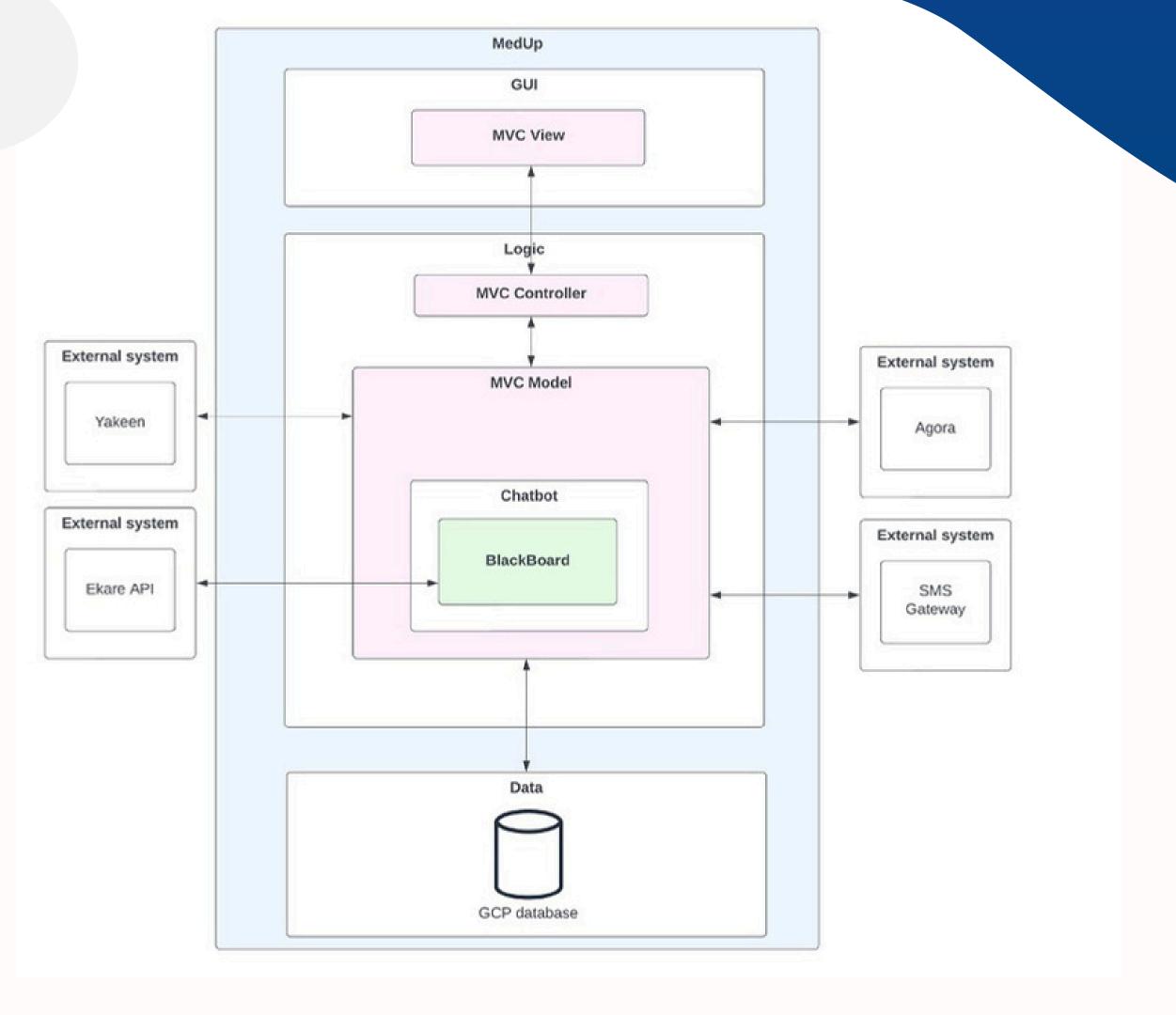
we've combined two architectural styles, **Model-View-Controller (MVC)** and **Blackboard**, to leverage the benefits of both.

**MVC** offers structured organization and separation of components, enhancing modularity, scalability, and reusability. It accommodates our main services, like the AI chatbot with machine learning modules.

However, the inclusion of an external API for image processing posed a modularity challenge. To address this we integrated **Blackboard architecture**, enabling collaboration among independent components and promoting modularity and extensibility. This approach allows our system to iteratively combine knowledge and functionalities without tight coupling, ensuring efficient performance and adaptability.

### ARCHITECTURE STYLE





## FUTURE WORK



Chatbot support for different Arabic accents



Integration with Sehhaty



Alternative medicine suggestions

### THANK YOU

- Rafeef Alowayed
- Najlaa Alhazani
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- Sara Alaiban
- Lama Almazyad
- Ruba Alrabaih