Group Project Report - Medihub

Project Group 24

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Introduction

Medihub is an android app designed within the project requirements to help manage healthcare appointments between patients and doctors. The app stores and manages its data through firebase, a web/mobile development platform made by google; each user's email & password is stored using Firebase Authentication while other data such as user profiles and appointments are stored using Firebase Realtime Database.

There are 3 roles for users in Medihub: Patient, Doctor, and Admin. They each have the following abilities:

Patients:

- Search & book an appointment based on a medical specialty
- View their list of upcoming & past appointments
- Rate a doctor through a past appointment

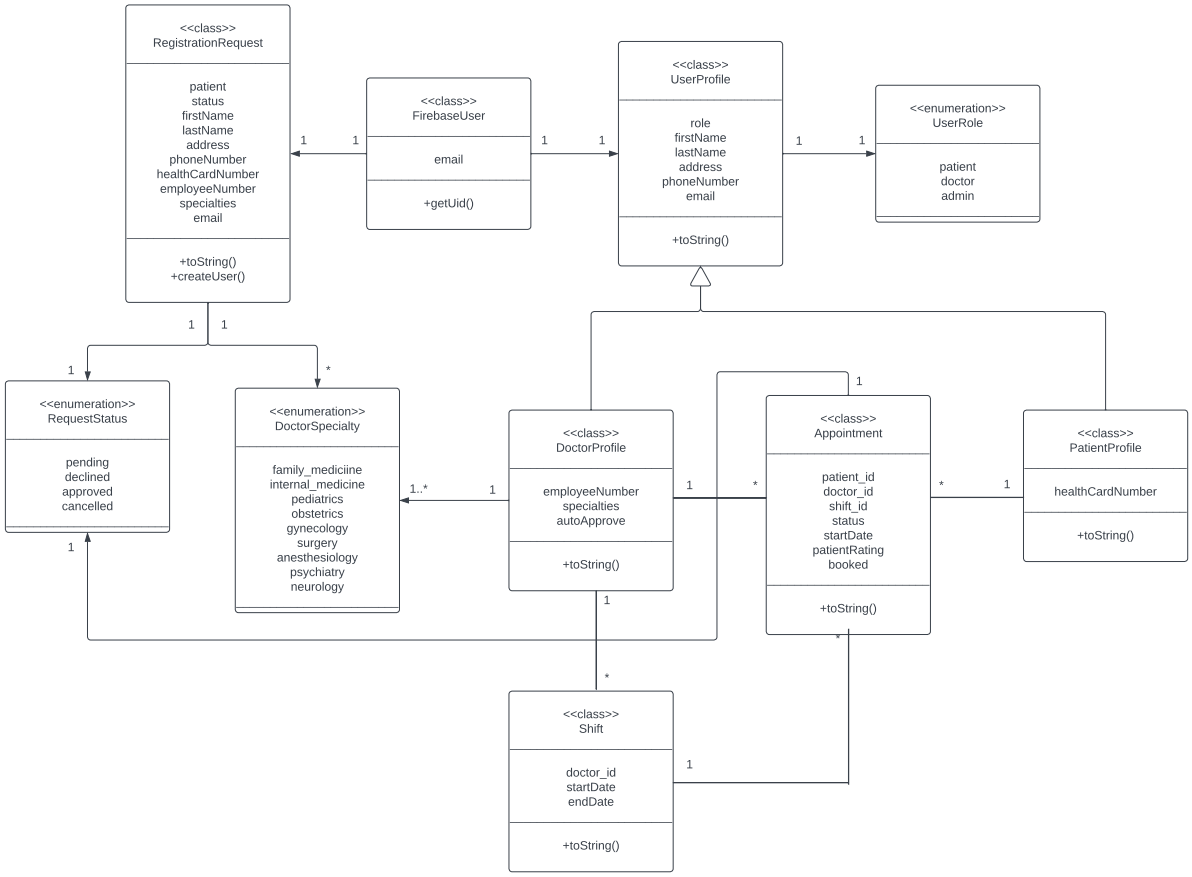
Doctors:

- Manage their shifts
- Accept, decline, or cancel appointments from patients
- View their list of upcoming & past appointments

Admins:

- Accept or decline user registration requests

UML Class Diagram

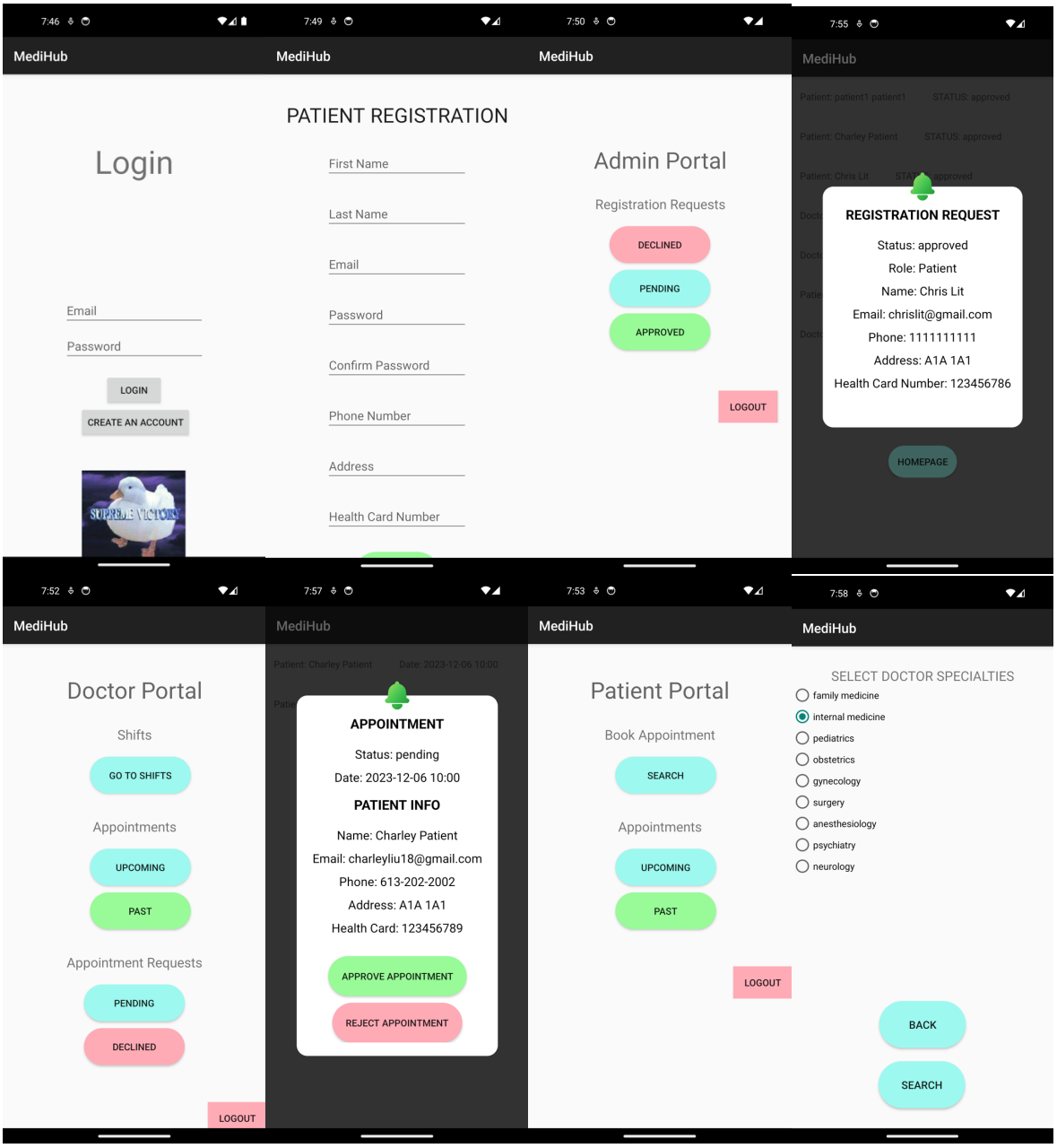


Contributions

Deliverable 1	Michael: Added UML Diagram
Deliverable 1	Charley: Setup android studio project with firebase & linked it to remote repository.
Deliverable 1	Charley: Added user models and user enums
Deliverable 1	Feiyu: Added UI and button controller for registration option page
Deliverable 1	Charley: Added doctor registration UI & user profile validations
Deliverable 1	Charley: Added registrations for doctors
Deliverable 1	Christopher: Created login and welcome UI
Deliverable 1	Christopher: Authenticated login
Deliverable 1	Charley: Added admin account & different user activities
Deliverable 2	Charley: Added registration request model & modified UML
Deliverable 2	Feiyu: Added RegistrationRequest popups and inbox page
Deliverable 2	Michael: Updated login to check for registration requests
Deliverable 2	Chris: Updated registrations to create RegistrationRequests instead of users

Deliverable 2	Charley: Fixed & added new information to RegistrationRequest popups
Deliverable 2	Charley: Modified Model interface
Deliverable 2	Chris: Worked on approving and declining registration requests
Deliverable 2	Chris: Added separate screens for approved, pending, and declined registration requests
Deliverable 2	Charley: Fixed bugs with approving and declining registration requests
Deliverable 2	Charley: Made UI changes in XML files
Deliverable 3	Charley: Modified UML & Appointment and Shift classes
Deliverable 3	Charley: Added upcoming and past appointments list
Deliverable 3	Feiyu: Added declined/canceled & pending appointments list & automatic approval
Deliverable 3	Chris: Added shifts and allowed user to delete and view shifts
Deliverable 3	Chris: Added checks when creating shifts to prevent doctors from creating overlapping shifts
Deliverable 4	Charley: Modified UML & added shift deletion check
Deliverable 4	Feiyu: Added patient bookings
Deliverable 4	Chris: Added patient appointments lists
Deliverable 4	Michael: Added unit test cases & verified they worked properly
Deliverable 4	Charley: Last minute bug fixes

Screenshots



Lessons Learned

We learned many things throughout this group project. One of the most important things we learned was how to work as a team and get tasks done together using Github & Git Version Control. In order to work on separate parts of the project at once, we used git branching & pull requests to keep things organized. Another lesson we learned is that communication is vital for group projects such as these with frequent deadlines, thus, we used a messaging application to keep in touch with each other.

Another important thing we learned was how to use Android Studio & how to integrate parts of our app with our database and firebase authentication service. Using external tools such as Firebase helped us familiarize ourselves with developing applications with actual potential end-users.

In conclusion, our group learned many things working on this project related to Software Engineering.