

SEG2105[A]  
Android Project Final Report  
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## Introduction:

This project is about creating a Healthcare Appointment Management System (HAMS) designed for a telehealth clinic. The project unfolds through four deliverables plus one demo, each with its focus, covering GitHub and User Accounts, Administrator Features, Doctor Features, and Patient Features. The application was developed using the Java programming language, and utilised Android Studio for development. The system addresses three different user roles in a mobile application: Administrator, Doctor, and Patient.

### 1. Patient:

- Registration:
  - Filling out registration form based.
  - Subject to Administrator approval.
- Functionality:
  - Browse upcoming appointments based on specialties.
  - Cancel existing appointments if they are not within 60 mins of the current time.
  - Review past appointments.
  - Rate Doctors post-appointment on a scale from 1-5 stars.
  - Schedule new appointments.

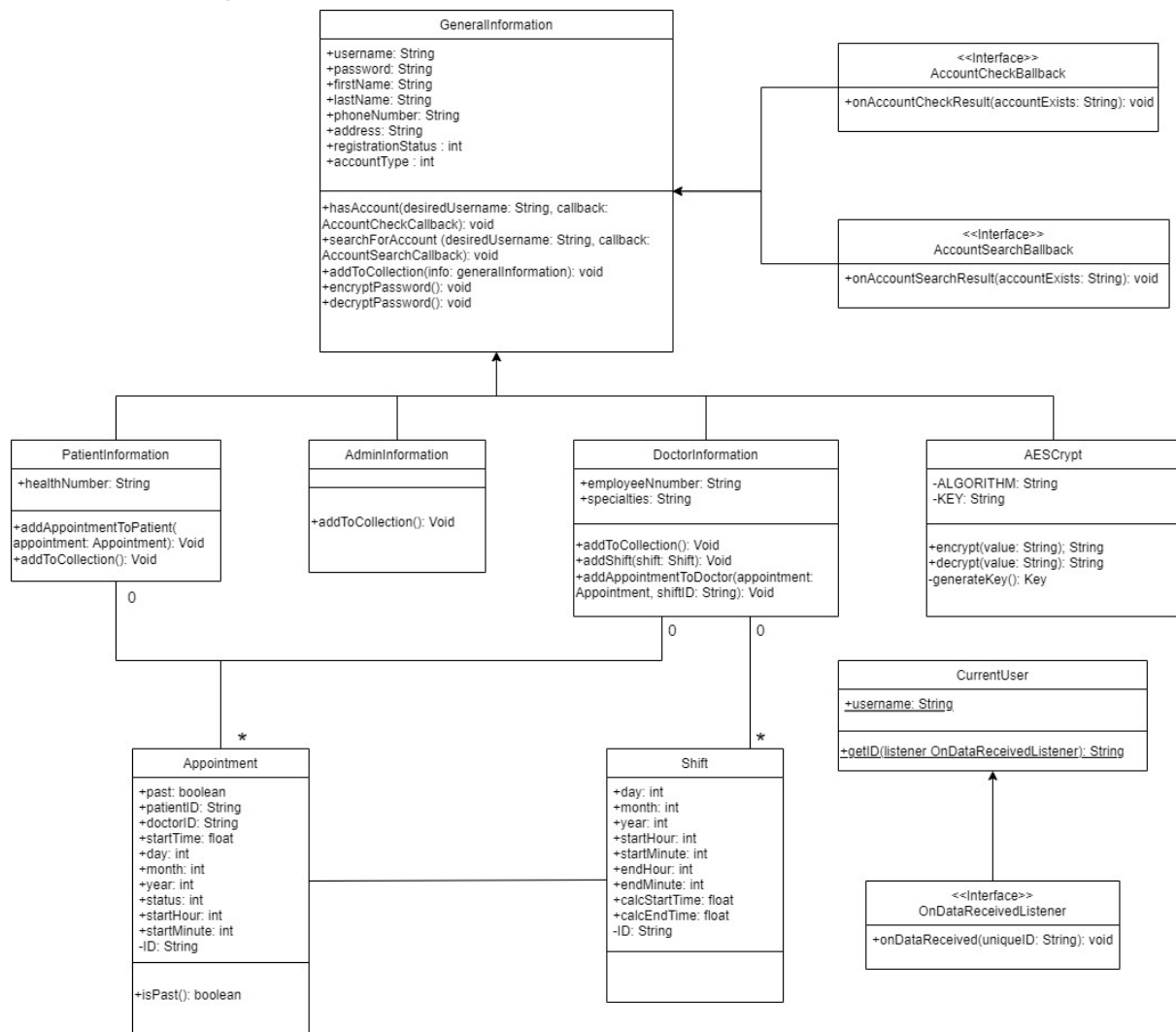
### 2. Doctor:

- Registration:
  - Filling out registration form based.
  - Pending Administrator approval.
- Functionality:
  - Set working shifts in 30 min based time.
  - Delete existing shifts if they are not associated with any appointments.
  - Access upcoming and past appointments.
  - Cancel upcoming appointments.
  - Approve appointment requests.
  - Option for automatic approval of all requests.

### 3. Administrator:

- Pre-registered user:
  - Already exists in the system.
- Functionality:
  - Approve or reject registration requests from Patients and Doctors.
  - Can see information of the people registering.

## UML class diagram:



## Contributions of team members per deliverable:

Deliverables	YuYang Liu	Wajeeh Syed	Together
1	Completed documentation	Created the team on Github, submitted the apk	Drew the UML diagram, completed/tested the code for the deliverable via Discord.
2	Created the FireBase, Completed documentation	Built APK and managed Github uploads	Drew the updated UML diagram, completed/tested the code for the deliverable via Discord.
3	Completed documentation	Built APK and managed Github uploads	Drew the updated UML diagram, completed/tested the code for the deliverable via Discord.

4	Reviewed for all deliverable checks, created and started final report	Built APK and managed Github uploads, optimization of code, commenting	Drew the updated UML diagram, completed/tested the code for the deliverable via Discord, completed the final report.
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Screenshots of the application:

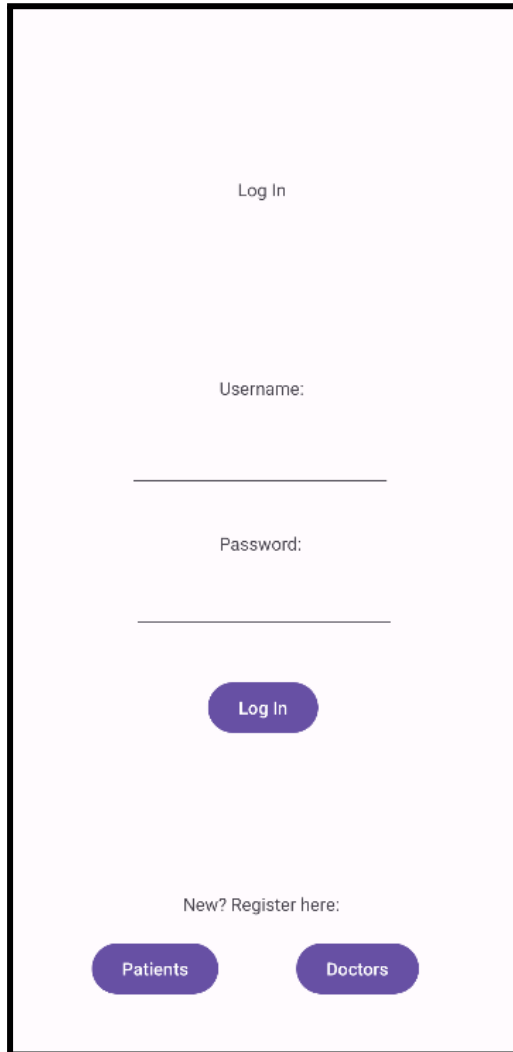


Figure 0: Login page

# Get Started

First Name

Last Name

Email(This will be your username)

Password

Phone Number

Address

Health Card Number

Register

Figure 1: register page for patients

# Get Started

First Name

---

Last Name

---

Email(This will be your username)

---

Password

---

Phone Number

---

Address

---

Employee Number

---

Doctor Specialty

---

Register

Figure 2: register page for doctors

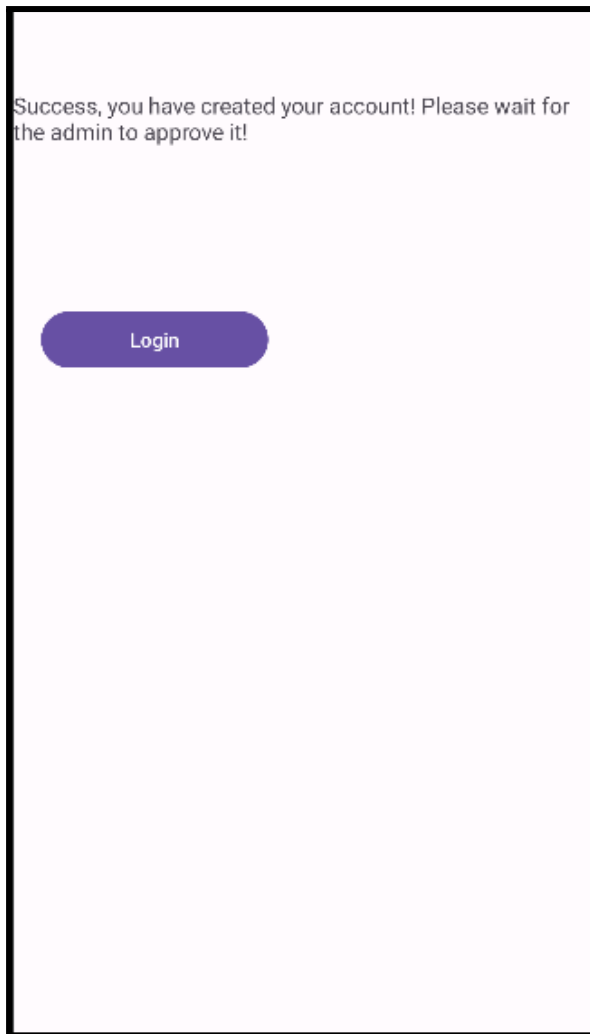


Figure 3: shows when you finish registering

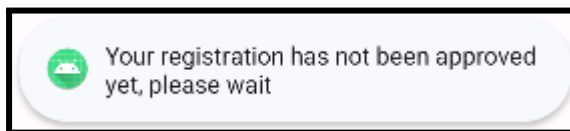
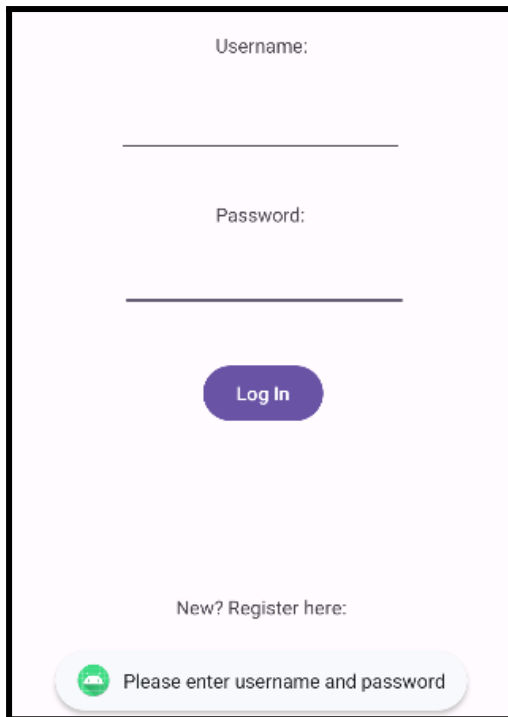


Figure 4: popup for if you try to login before the admin accepts you



Username:

---

Password:

---

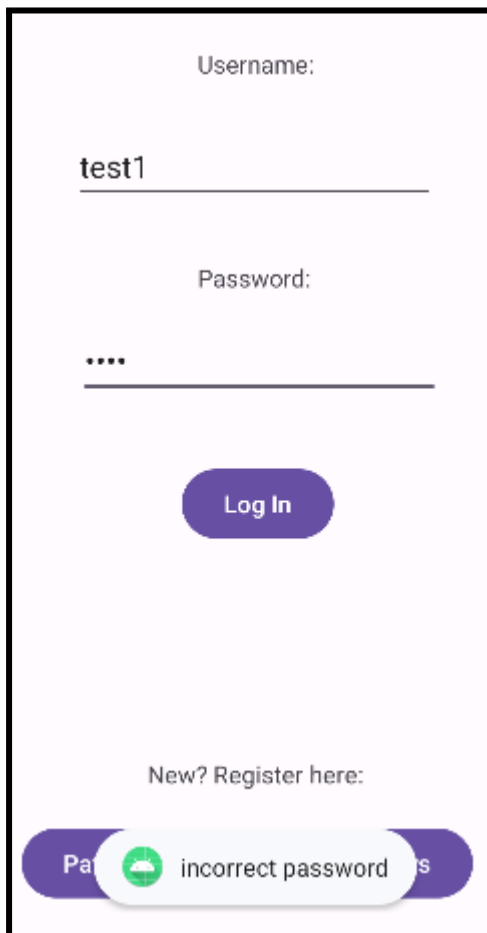
Log In

New? Register here:

Please enter username and password

This figure shows a login form with two input fields, 'Username:' and 'Password:', each followed by a horizontal line. Below the fields is a purple 'Log In' button. At the bottom, there is a link 'New? Register here:'. A light blue error message bubble with a green icon and the text 'Please enter username and password' is positioned at the bottom of the form.

Figure 5: popup for if you have username and/or password empty



Username:

test1

---

Password:

....

---

Log In

New? Register here:

incorrect password

This figure shows the same login form as Figure 5, but with the username field containing the text 'test1' and the password field masked with five dots. The 'Log In' button is still present. A light blue error message bubble with a green icon and the text 'incorrect password' is now displayed at the bottom of the form, partially overlapping the 'New? Register here:' link.

Figure 6: popup for incorrect password



Username:

test

Password:

....

Log In

New? Register here:


 An account with this username could not be found

Figure 7: popup for a username that doesn't exist

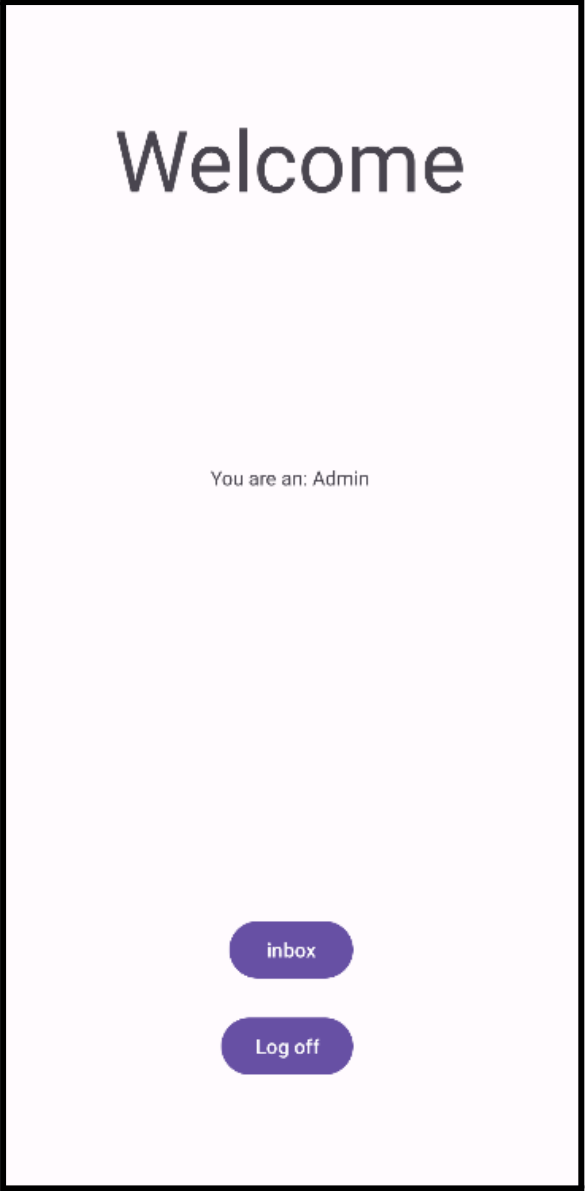


Figure 8: the welcome page for admins

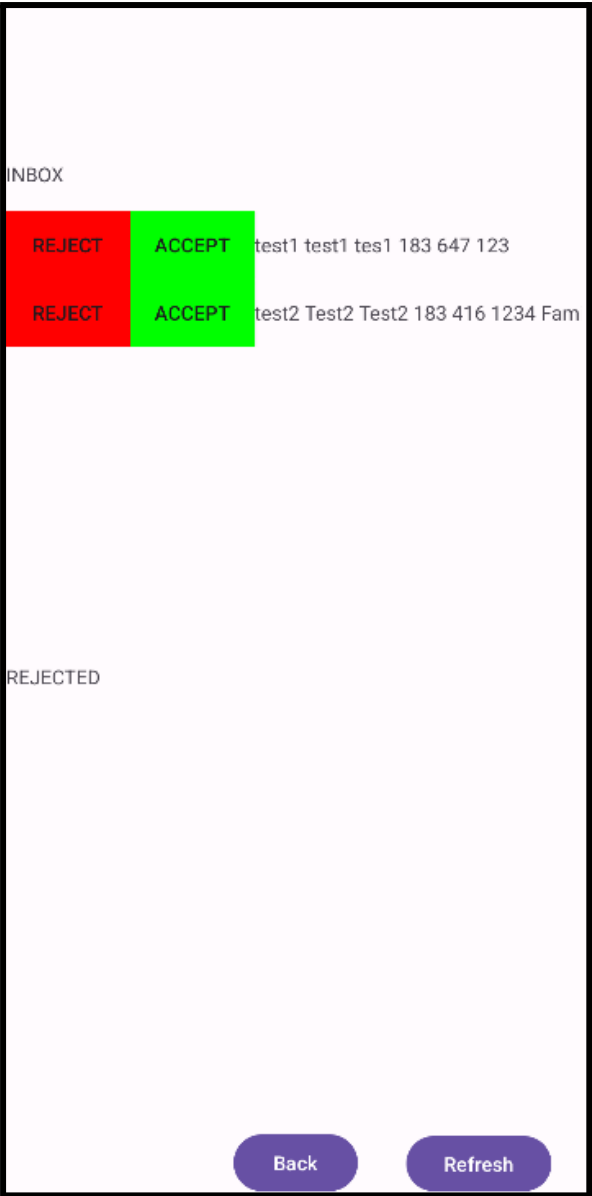


Figure 9: Inbox page for admins to accept patient and doctor registers

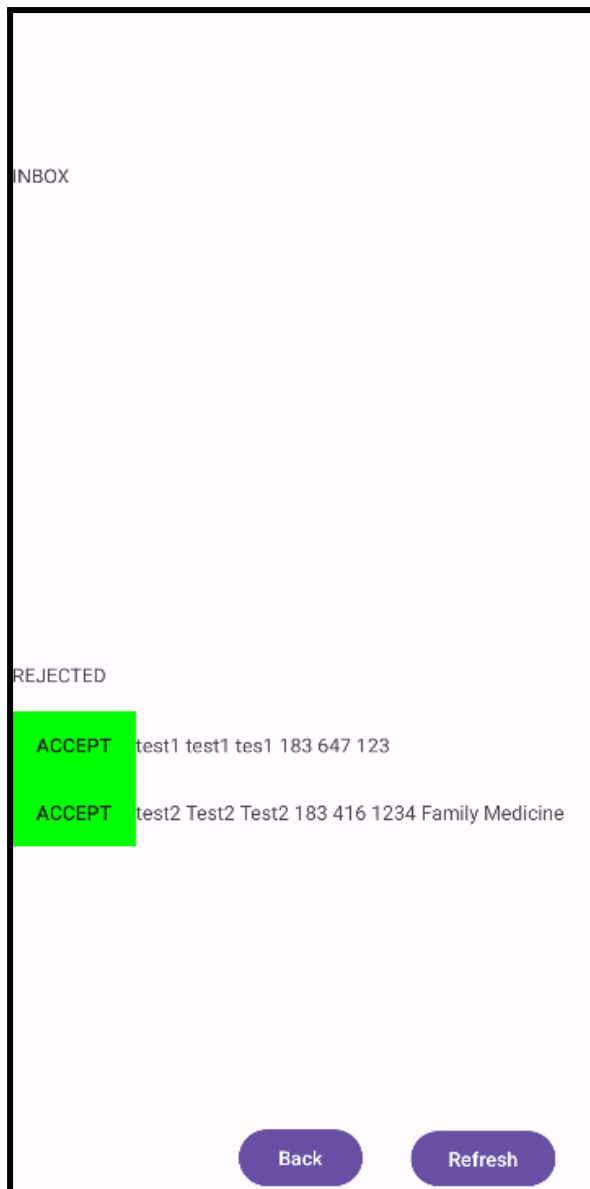


Figure 10: inbox page for admin if they reject registers

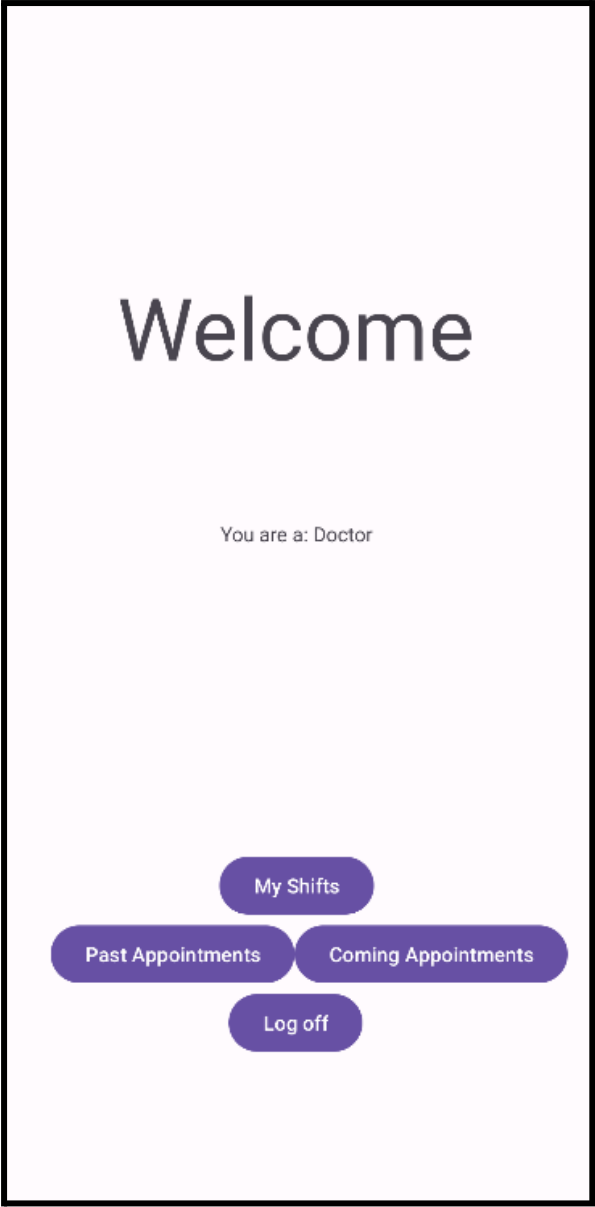


Figure 11: welcome page for doctors

# My Shifts

Start Time

End Time

JAN 01 2000 ▾

Start Time:

End Time:

Select Date

Back

Add Shift

refresh

Figure 12: shift page for doctors

Start Time

End Time

DEC 4 2023 ▾

18:30

07:05

Select Date

Back

Add Shift

refresh

🔔

Shifts must end at xx:00 or xx:30

Figure 13: popup choosing the time not based on the project description

# My Shifts

CANCEL

DEC 4 2023 18:30-19:0

Start Time

End Time

JAN 01 2000 ▾

Start Time:

End Time:

Select Date

Back

Add Shift

refresh

Figure 14: doctor shift page, showing a shift that the doctor added

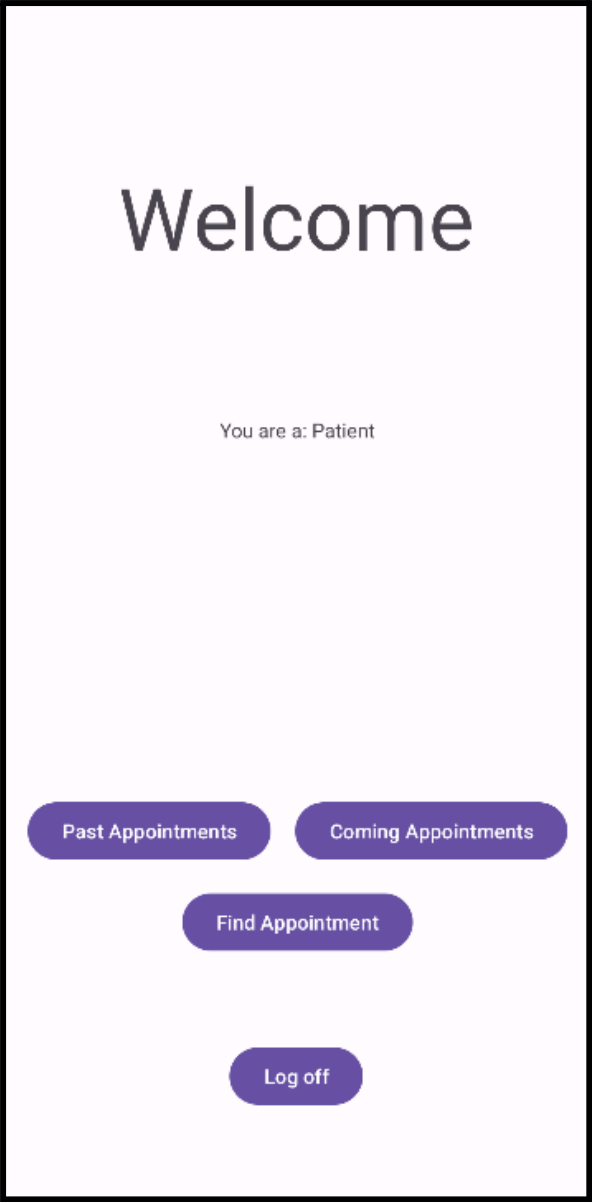


Figure 15: welcome page for patients



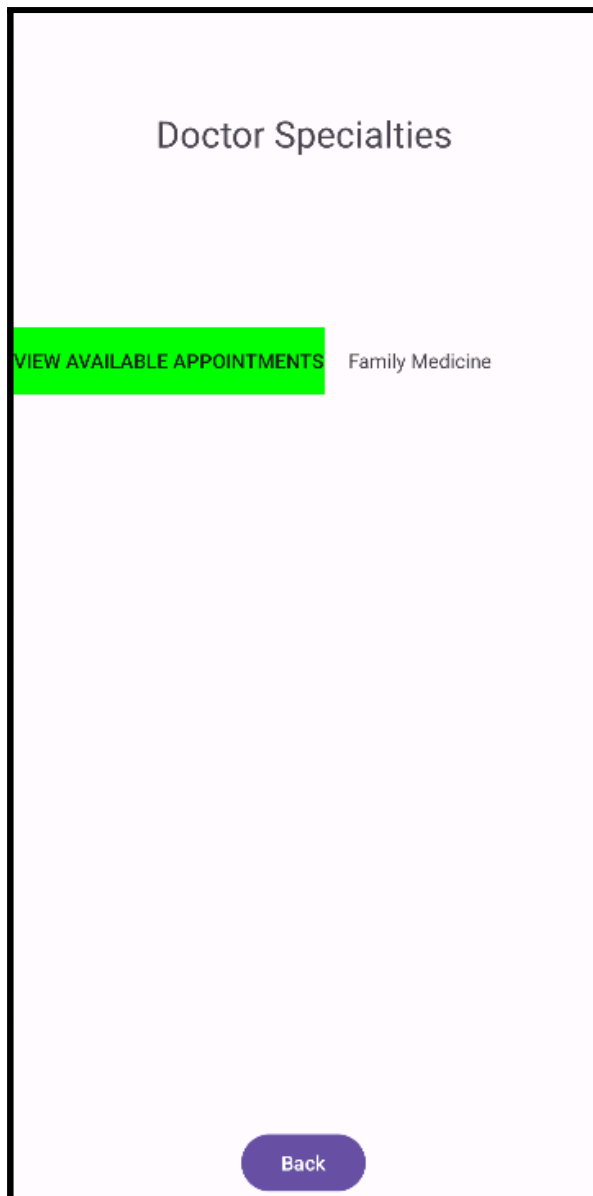


Figure 16: finding available appointments as a patient based on doctor specialties(Family Medicine)

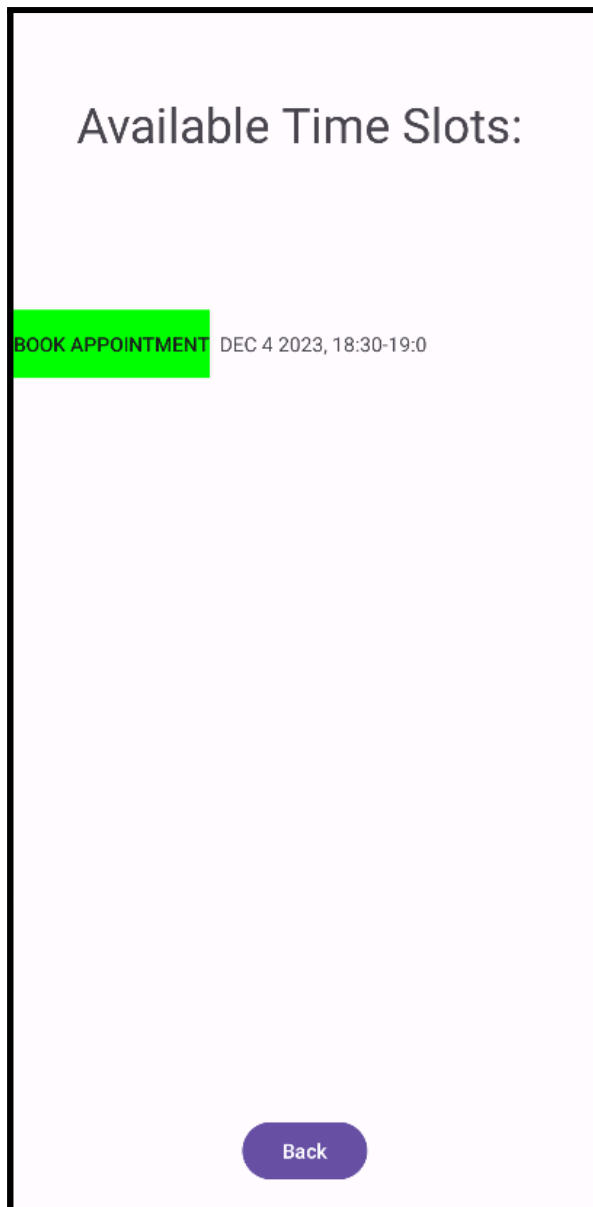


Figure 17: patient screen upcoming appoint

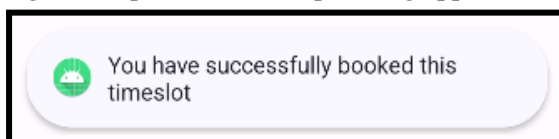


Figure 18: popup that appears when you book a timeslot as a patient



Figure 19: patients coming appointment page, waiting for the doctor to accept.

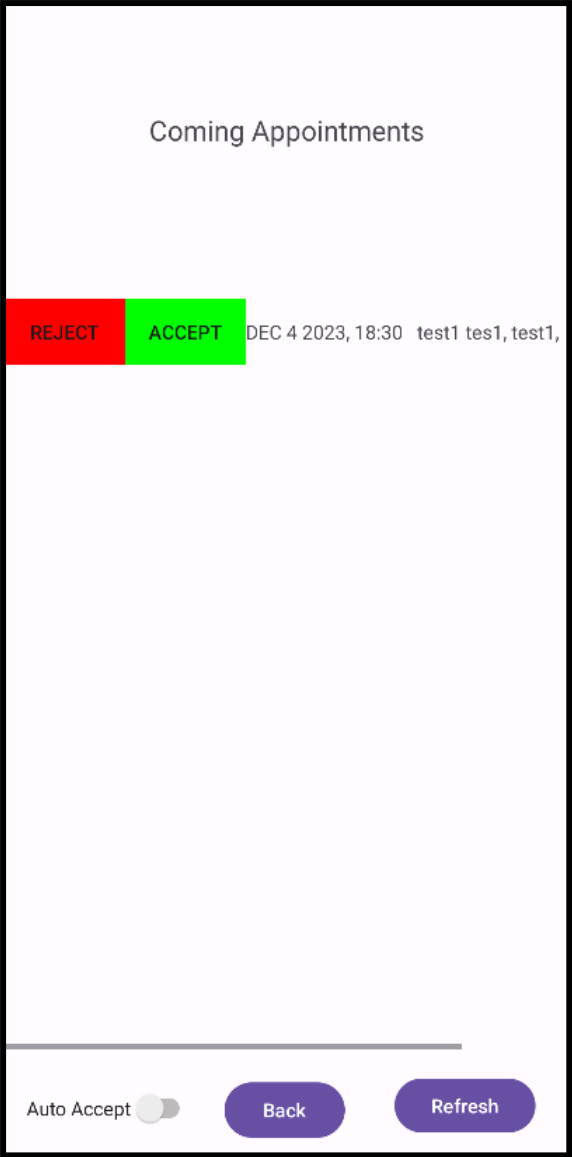


Figure 20: doctor coming appointment page

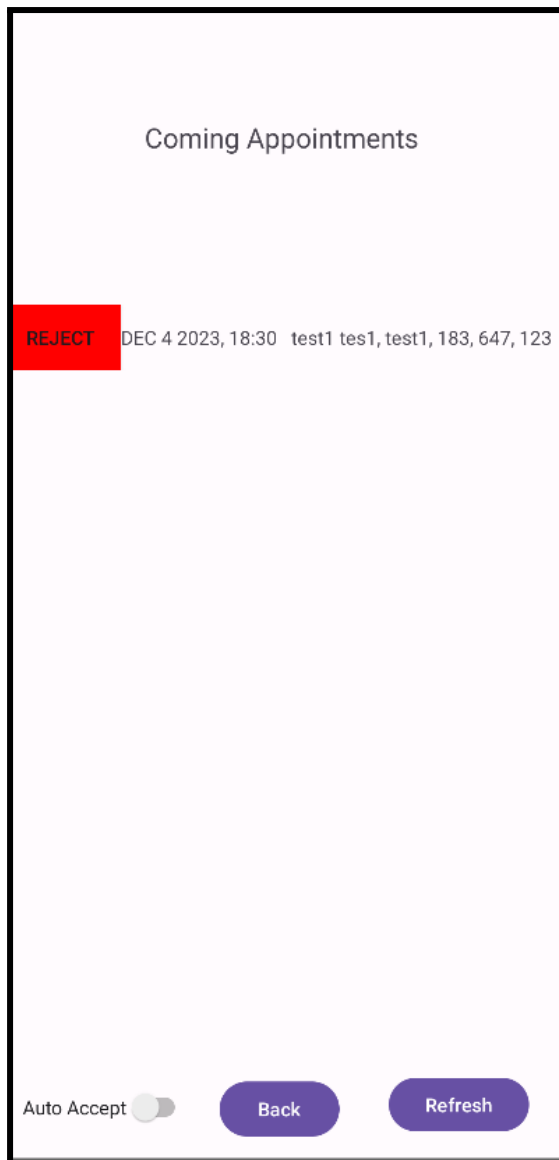


Figure 21: doctor coming appointment page, can reject after accepting

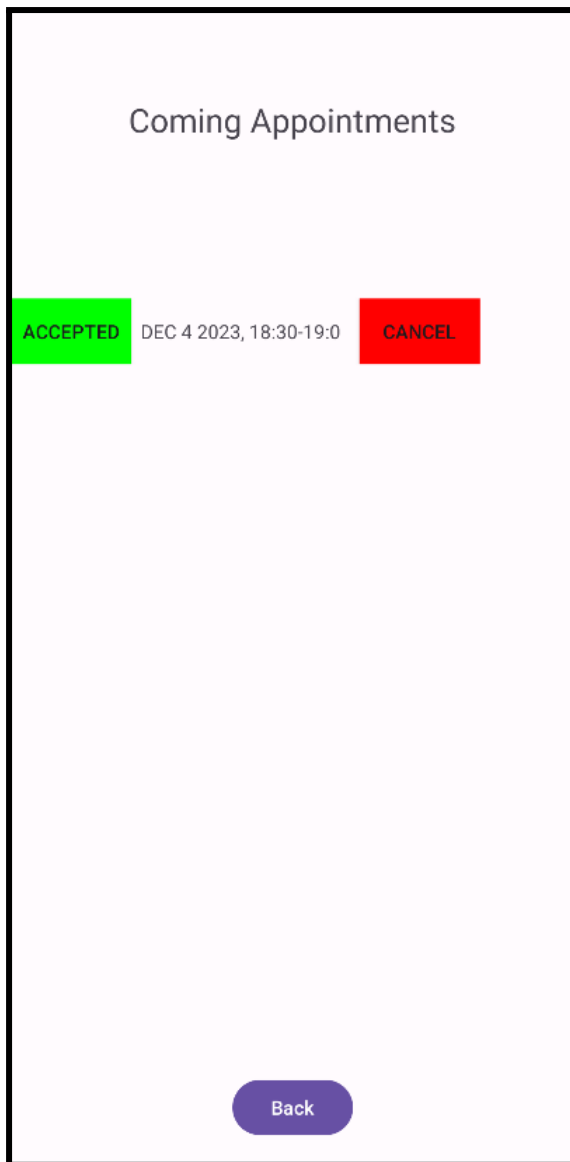


Figure 22: patient coming appointment page after doctor accepted, can cancel if it's not 1 hour prior appointment.

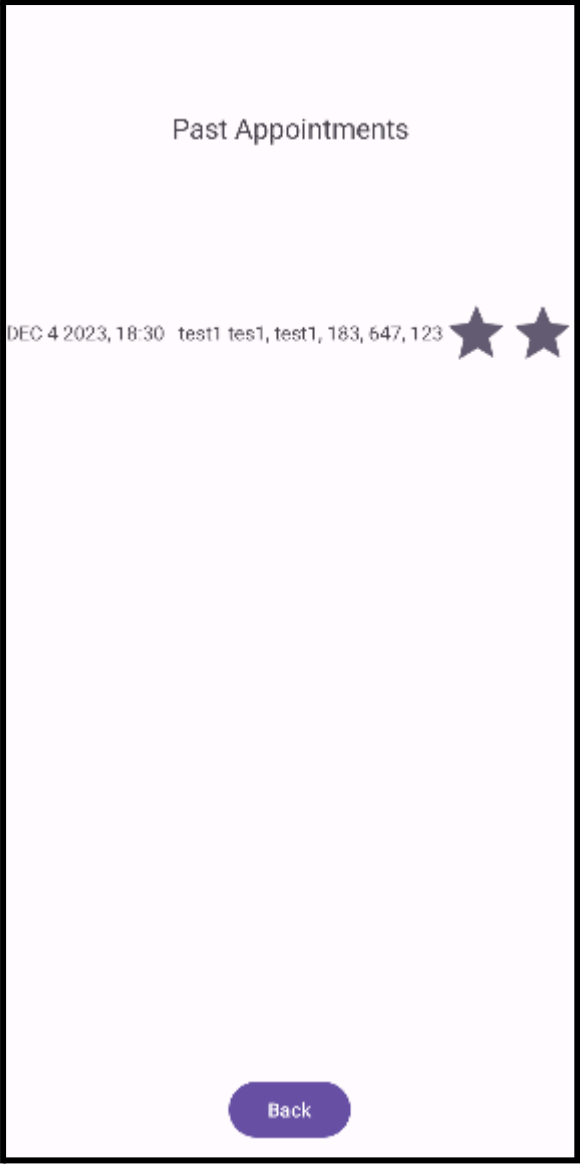


Figure 23: past appointment screen for patients

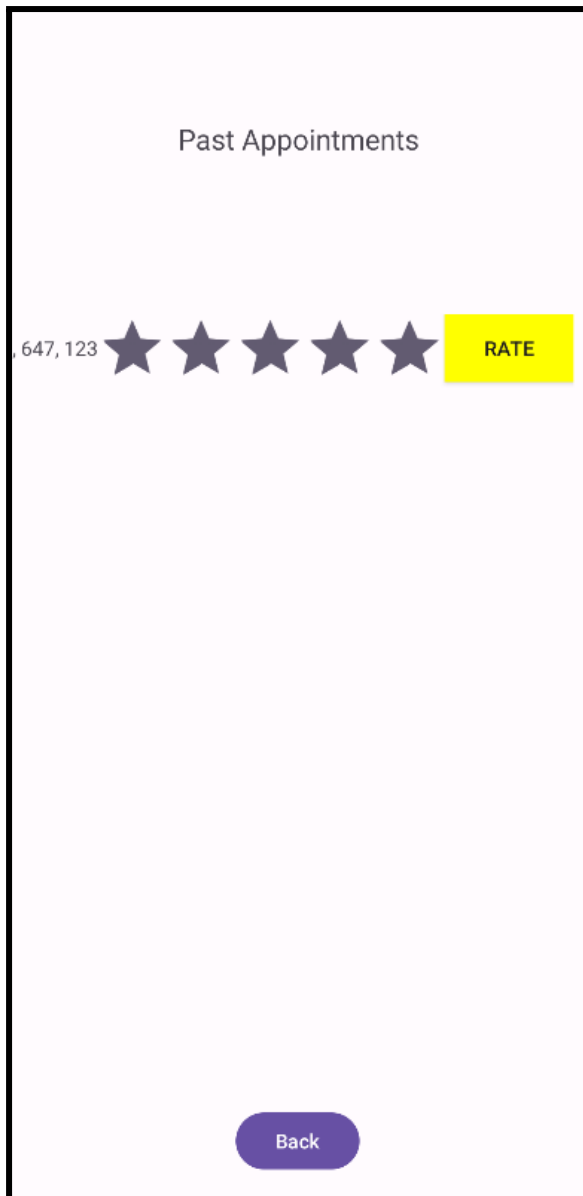


Figure 24: the stars in past appointment screen for patients to rate previous doctor appointments



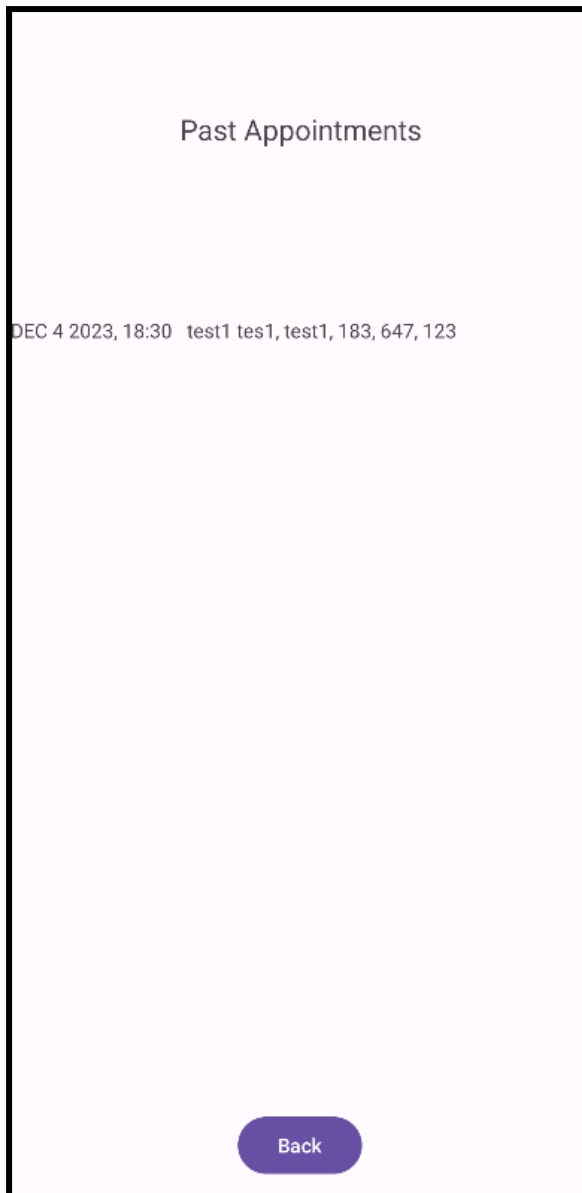


Figure 25: the past appointment screen for doctors.

## Lessons learned:

The team gained many valuable lessons while working on the Healthcare Appointment Management System (HAMS) project. The project required strong teamwork, especially in the need for regular updates and communication to keep everyone on task. Project planning was necessary to keep things organised and meet deadlines. The team was introduced to an environment similar to a working environment, and gained valuable skills to implement in a future workplace, such as Github version control, database utilisation, Android Studio app design, design patterns, software engineering techniques and framework design. These lessons have not only helped the project be completed successfully, but they have also given valuable information for any future collaborative software development projects.