

Cornell University

CS 5356: Building Startup Systems

Part 1 - Prototype It

1. Link to Figma Wireframe: <https://www.figma.com/file/Wmp1eMRzr0zVfC9pgbYX0X/BSS-Milestone-3?type=design&node-id=0%3A1&mode=design&t=P8naFW7pm41FT4fW-1>

2. Link to GitHub Repository: <https://github.com/2024-ctech-cs5356/milestone-3-200-ok>

3. Link to APK file:

<https://drive.google.com/file/d/1GK0roQqjpDKnajzVLkRmhA4k2UuMNV7D/view?usp=sharing>

Link to JSON file:

<https://drive.google.com/file/d/1BHm4W8UDNErKxQzkTdWZV6BO7OYLojjg/view?usp=sharing>

Link to debug.zip:

<https://drive.google.com/file/d/1tpb0SOGz8GRDtecCYw6K4-dKBWWsV90i/view?usp=sharing>

APK also shared with Professor Danny through Test Distribute on his email.

3. Overview Document

Product Overview Document

We have implemented three 3 CRUD Features in our app:

1. Patient Profile => User can create their profile by registering their account (C), read their profile details (R), edit the profile details (U) and delete their account (D).
2. Vaccine Appointments => Users can create vaccine appointments (C), read the created vaccine appointment (R), the admin can edit the list of available vaccines (U) and admin can delete vaccines from the list of available vaccines (D).
3. Doctor Appointments => Users can create doctor appointments (C), read the created doctor appointment (R), reschedule the appointment (U), and delete the appointment (D).

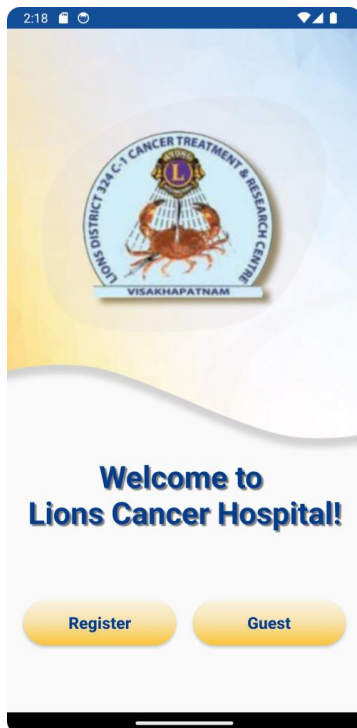
In addition, we added the authentication feature and database connection for the admin side.

Admin Credentials:

Username => harshini.donepudi30@gmail.com

Password => test1234

1. Introduction Page



The hospital app starts with a splash page that's accessible to everyone. The user can either create an account or browse the app in guest mode

2. Patient Register

Two side-by-side mobile app screenshots of the Patient Register screen. The left screenshot shows the empty form with fields for Name, Phone, Email, and Password. The right screenshot shows the form filled with 'Linda', '123456789', 'l@gmail.com', and a masked password. Both screens have a bottom navigation bar with 'REGISTER', 'PATIENT LOGIN', and 'ADMIN LOGIN' tabs, where 'REGISTER' is selected.

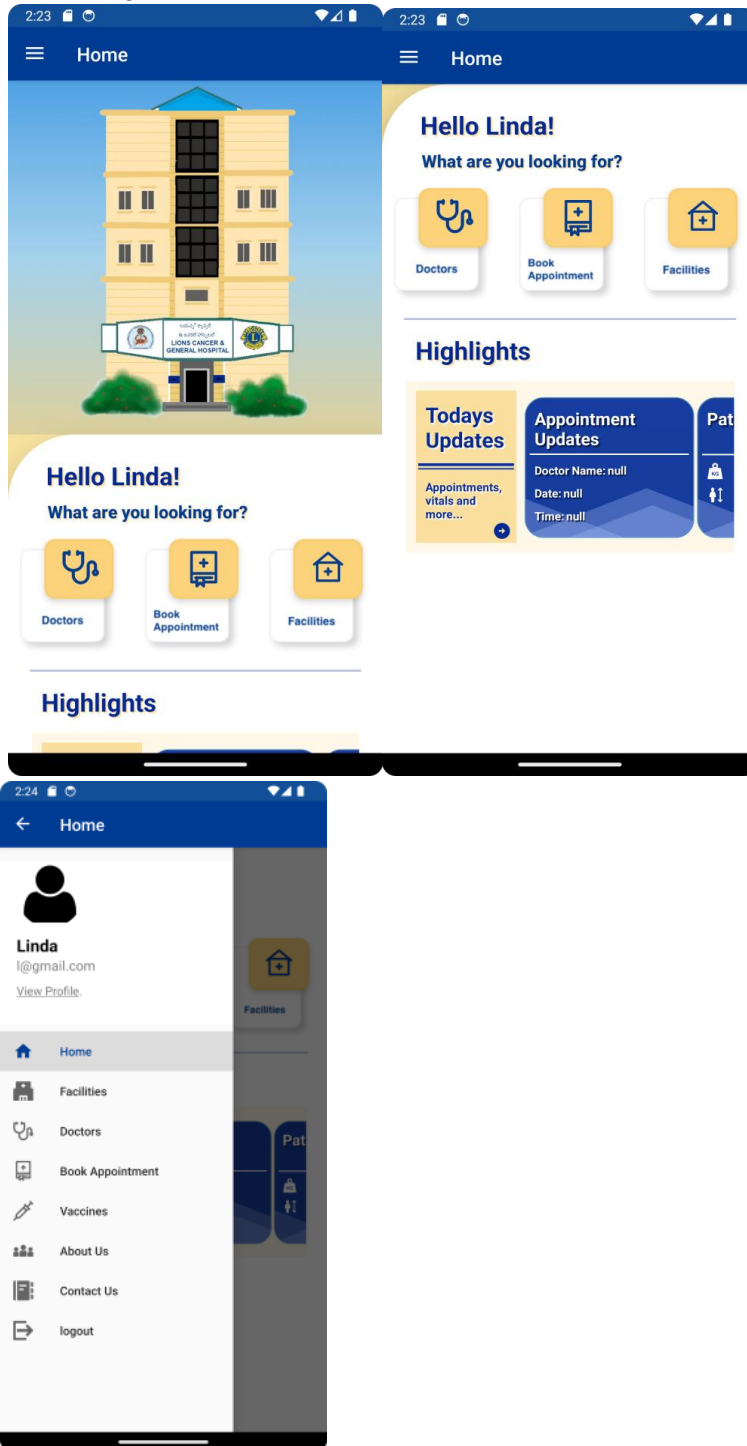
The patient register page allows the user to create an account with the above input fields.

3. Patient login

A mobile app screenshot of the Patient Login screen. It features input fields for Email (containing 'l@gmail.com') and Password (masked with dots). Below the password field is a 'Forgot password' link. At the bottom is a yellow 'LOGIN' button. The bottom navigation bar shows 'REGISTER', 'PATIENT LOGIN' (selected), and 'ADMIN LOGIN' tabs.

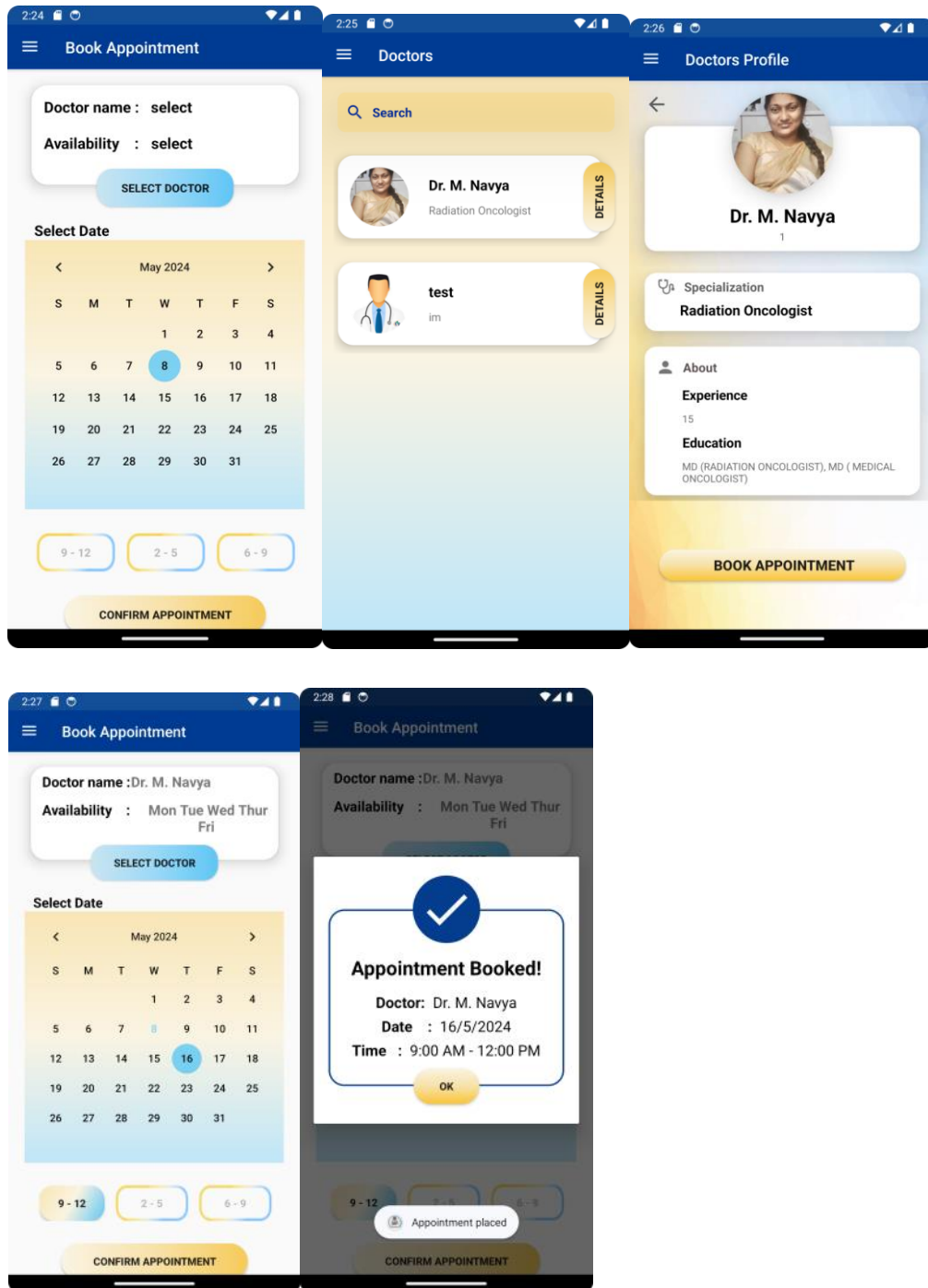
Once the patient has created they can login to the account using the patient login tab, where they can input their credentials.

4. Home Page



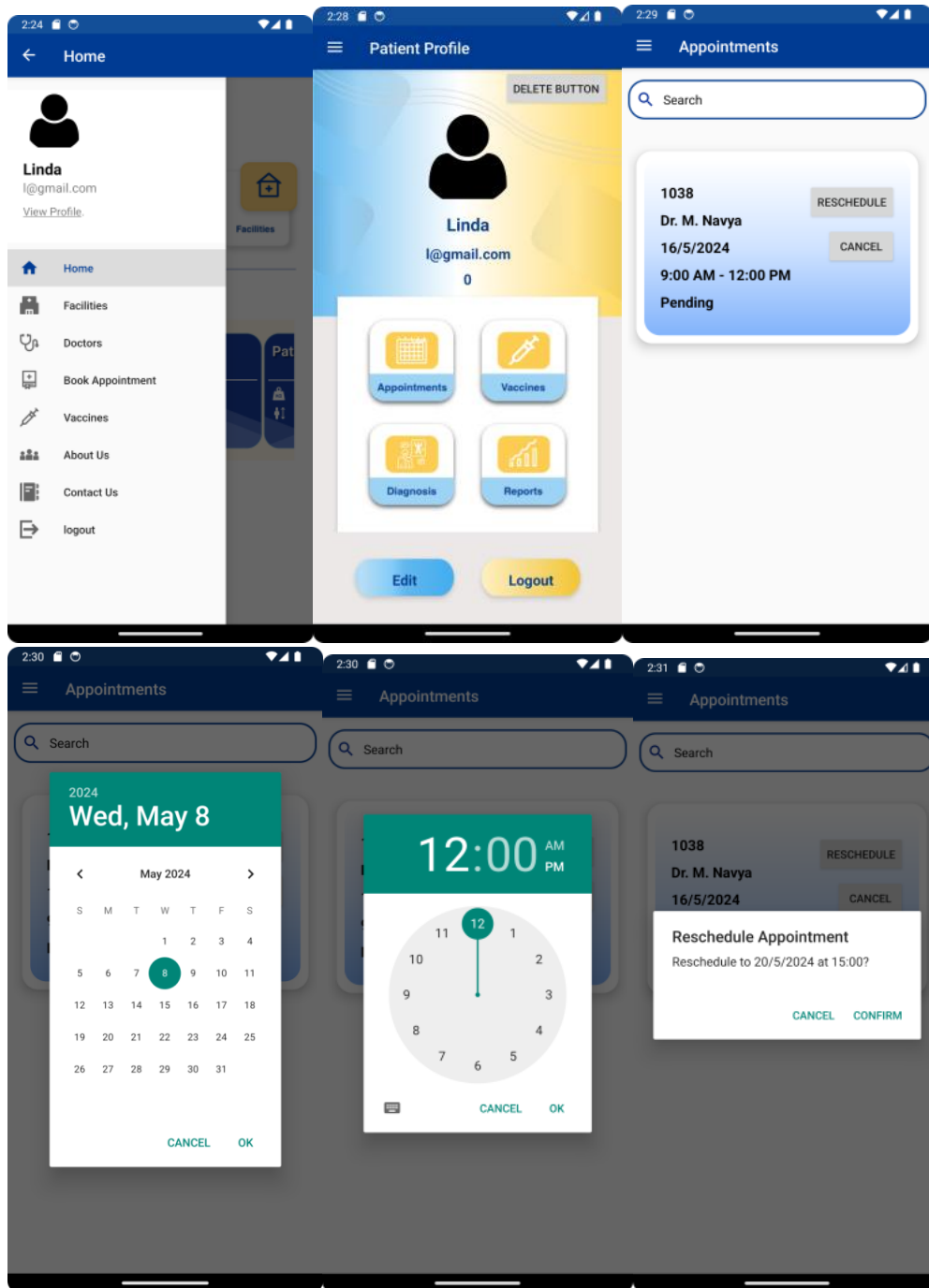
After the patient logs in, they are directed to the home page where they can view their appointments (if they have any), and can use the nav bar to view their profile dashboard, vaccine, and can book appointments.

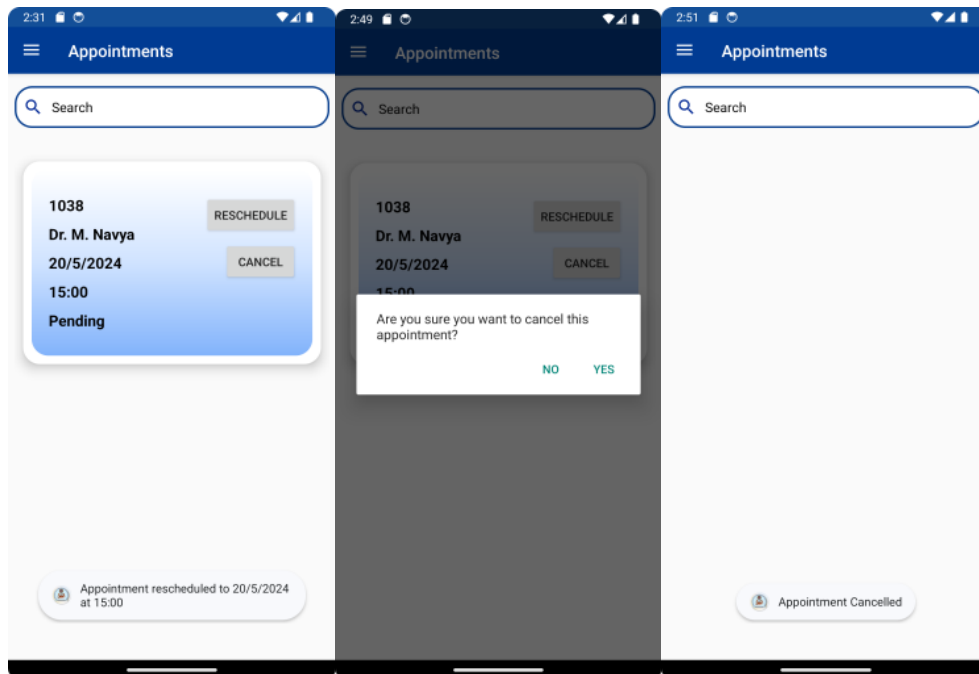
5. Book Appointment



After the user clicks on “Book Appointment”, the user is directed to the appointments page where they can select a doctor from a doctor’s list as displayed above. After the doctor selection, they can select the appointment date and time and book their appointment. The appointment needs to be approved from the admin side (shown at a later point in the document)

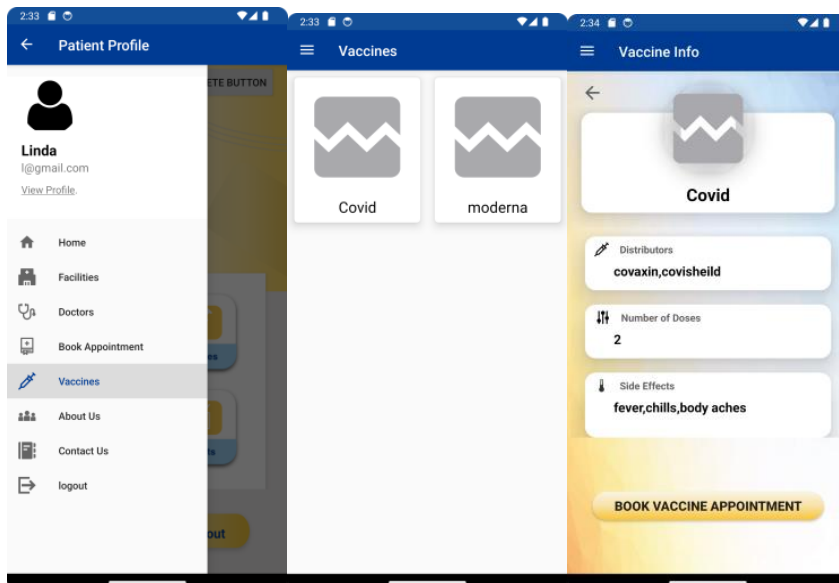
6. Edit and Delete Appointment

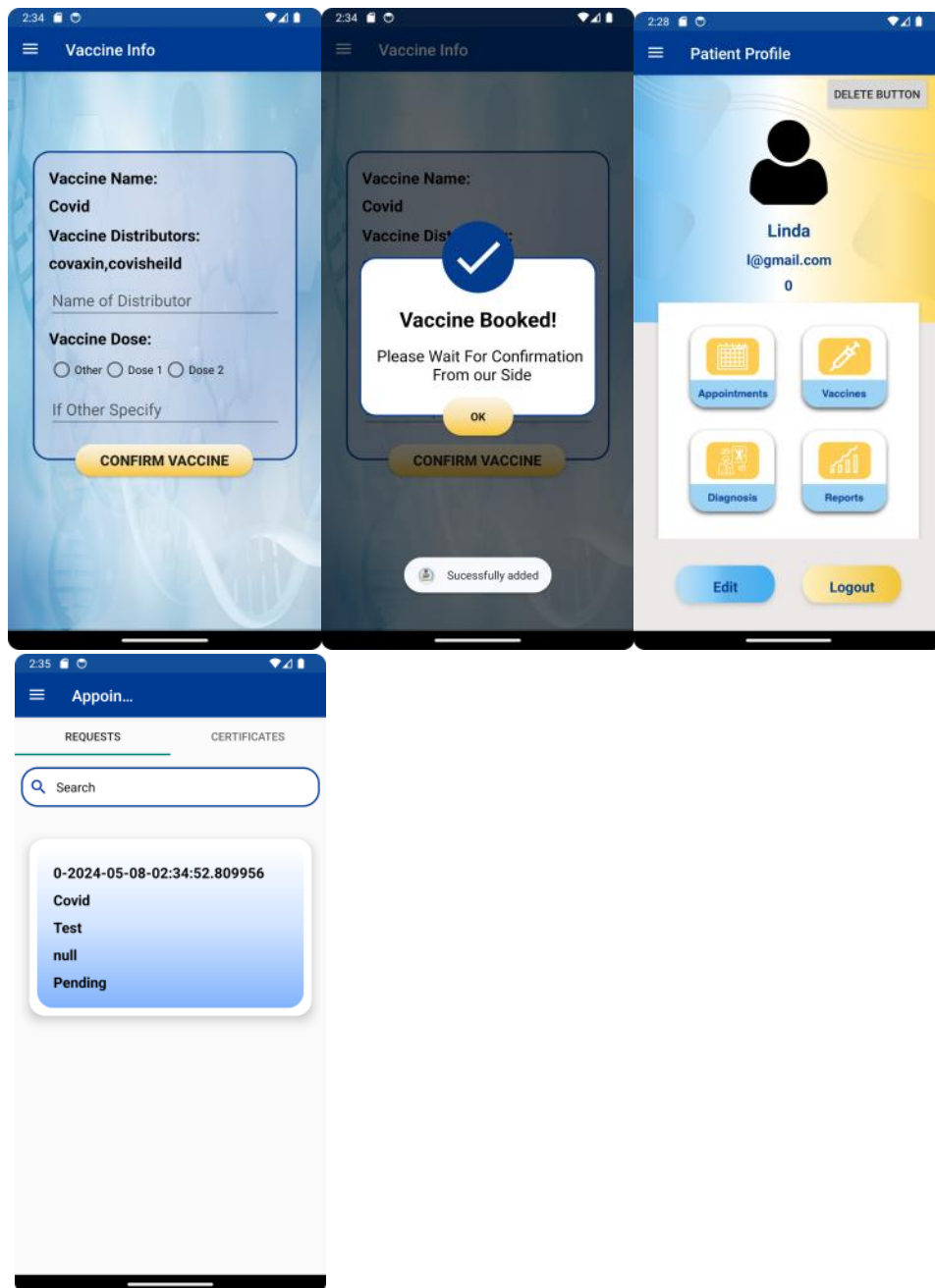




From the nav bar, using “View Profile”, the user is directed to the patient dashboard through which they can access their appointments. After clicking on “Appointments” they will see the list of booked appointments. They can edit the existing appointment by clicking on the reschedule button and selecting the new date and time. The appointment is automatically updated with this new time. The user can also delete their appointment by clicking on the delete button, which leads to the appointment being deleted and removed from the list.

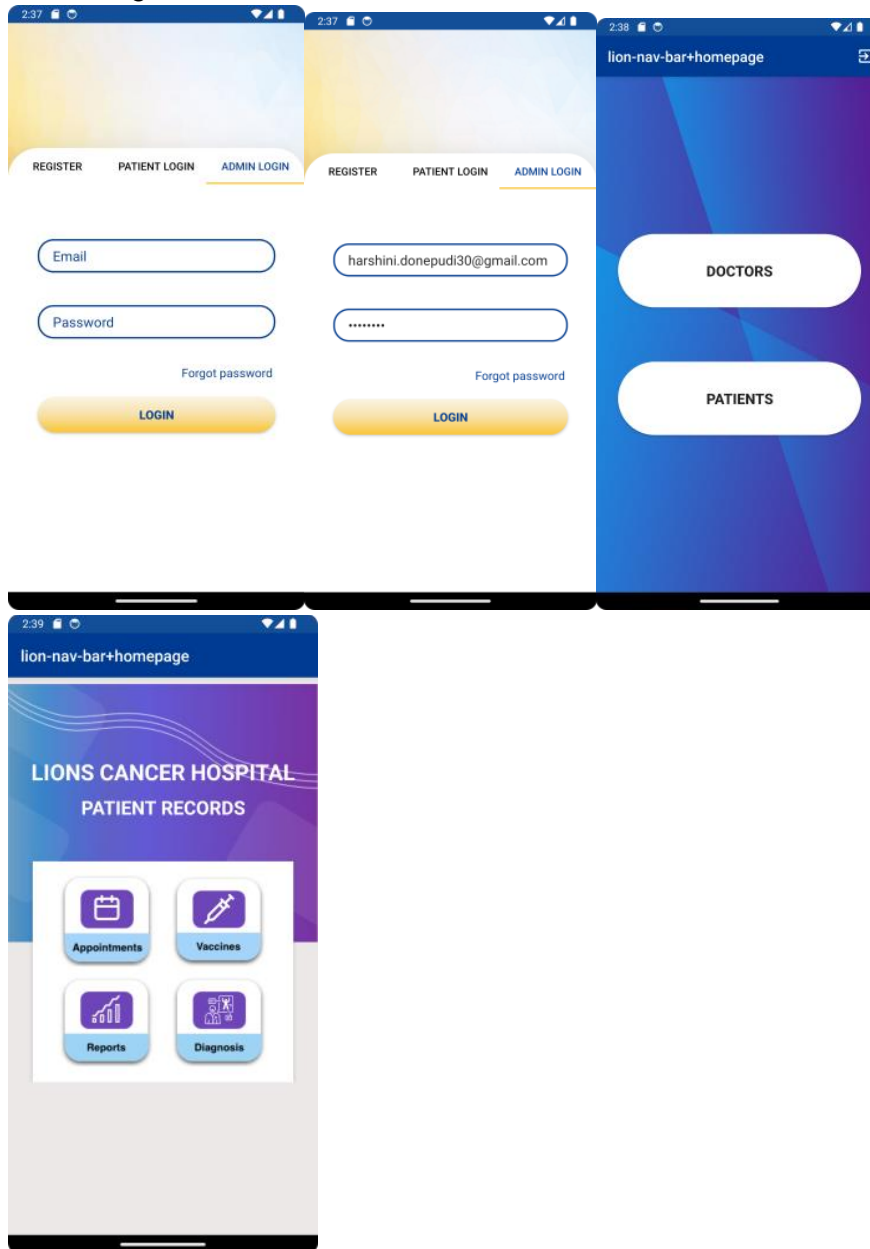
7. Book Vaccine





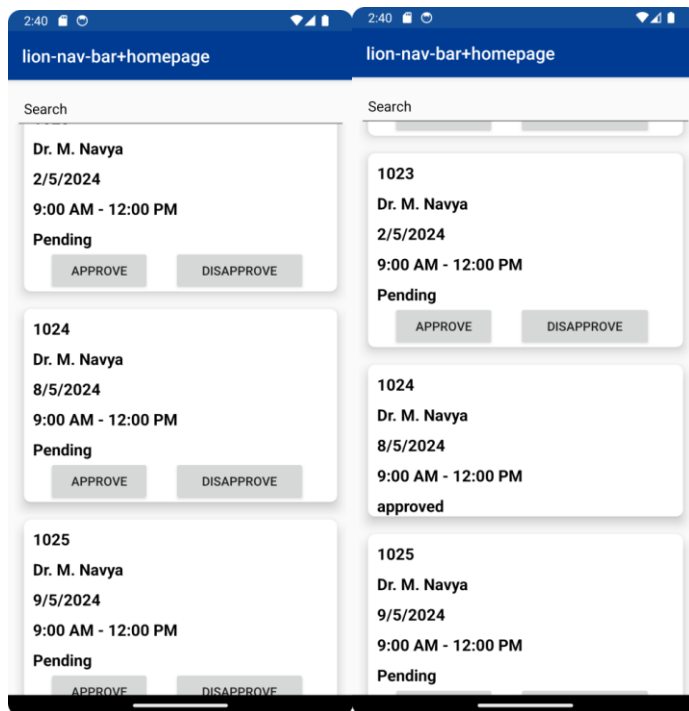
From the nav bar, users can create vaccine appointments by clicking on “Vaccines”. The users will be directed to a page showing the list of available vaccines which are managed by the admin (shown at a later point in the document). The users can choose a vaccine type, and book an appointment to get the vaccine by clicking on the “Book Vaccine Appointment” button. Then the users can enter the vaccine details as to what type of vaccine they want and which dose it is for. After entering the details, they can book their vaccine appointment. This appointment can be accessed through the “Vaccines” button on the profile dashboard, which shows of list of booked vaccine appointments. The appointment needs to be confirmed from the admin side (shown at a later point in the document)

8. Admin Login



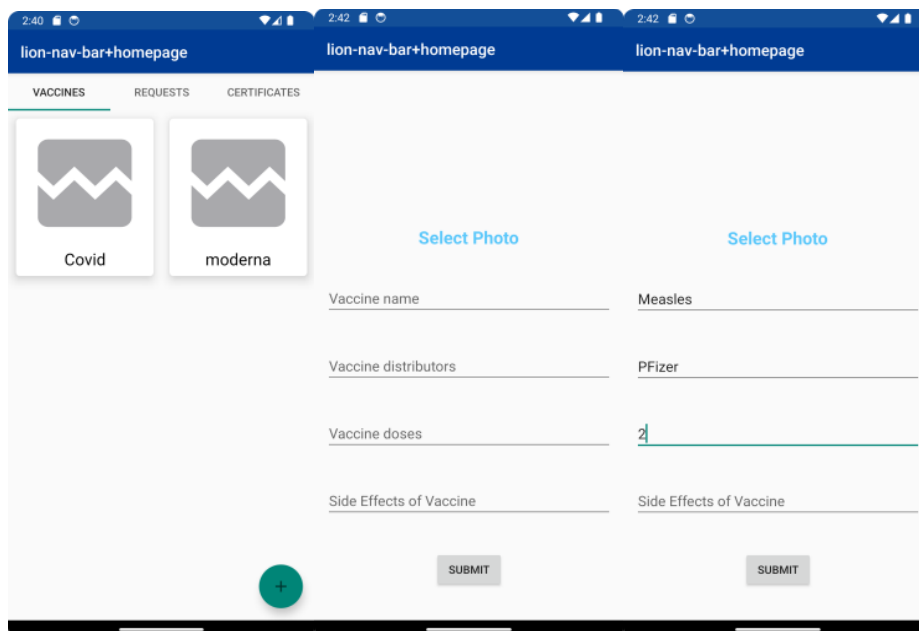
To access the admin side, the admin can login through the admin login tab. After authenticating the admin login credentials (the admin credentials were given at the start of the document), the admin is directed to the home page. After clicking on “Patients”, the admin can access the admin dashboard through which they can access patient appointments and information.

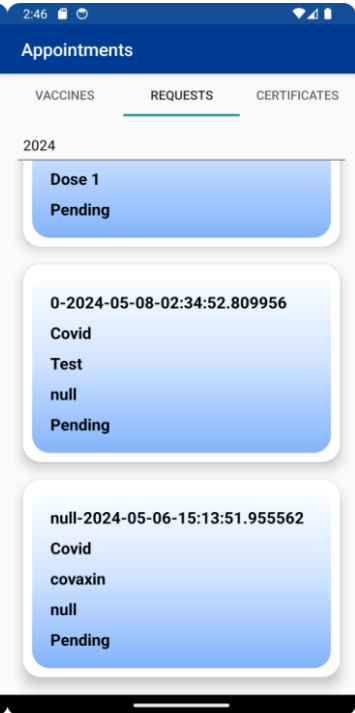
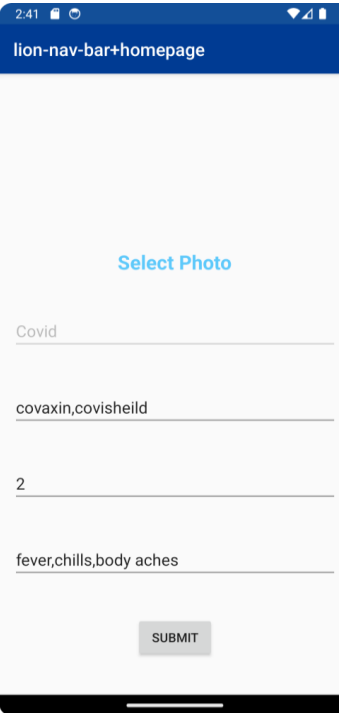
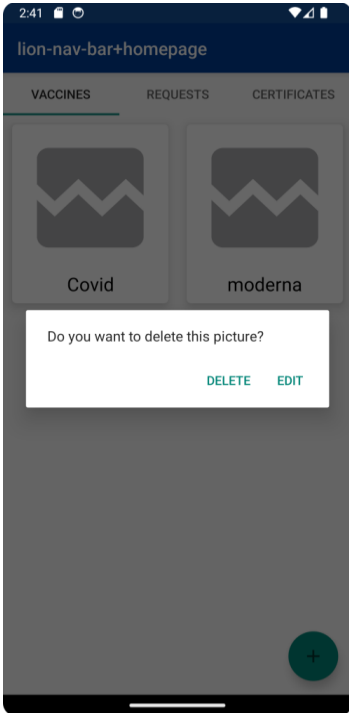
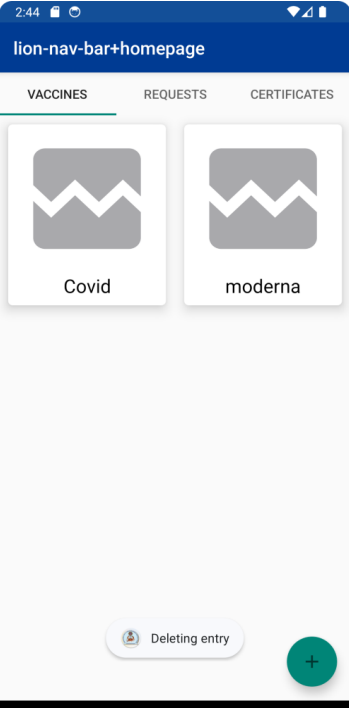
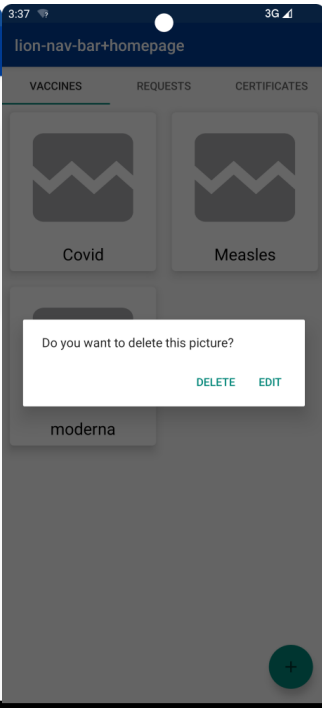
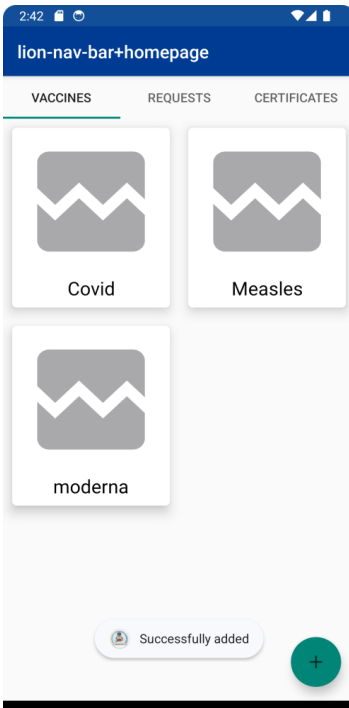
9. Appointment on the Admin Side

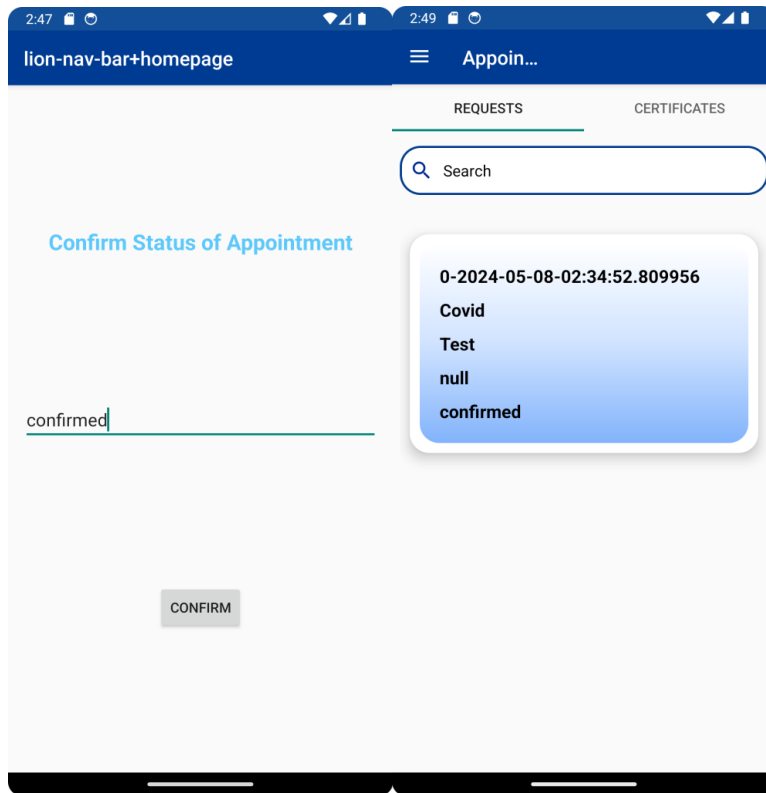


The admin can access the list of appointments booked by the patients by clicking on “Appointments” on the admin dashboard. The admin can then either approve or disapprove a patient’s appointment. The user will be able to see all the changes that took place on the admin’s side.

10. Vaccines on the Admin Side



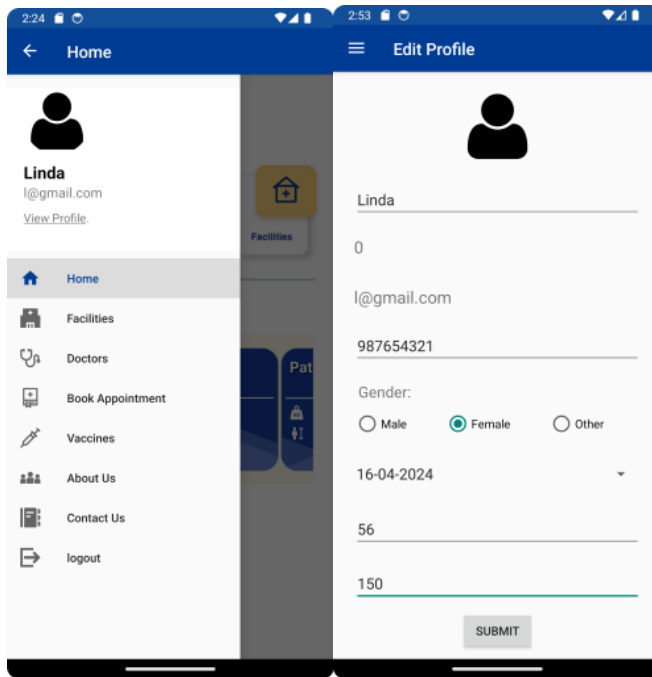




In the admin dashboard, clicking on "Vaccines" allows admins to manage the vaccines list under the "Vaccines" tab. Admin can add new vaccines using the "+" button, enter details, and submit to include them in the available vaccines list. Editing or deleting specific vaccines, for example, "Measles," is possible through their individual buttons; however, vaccine names cannot be changed. Deleted vaccines are removed from the list.

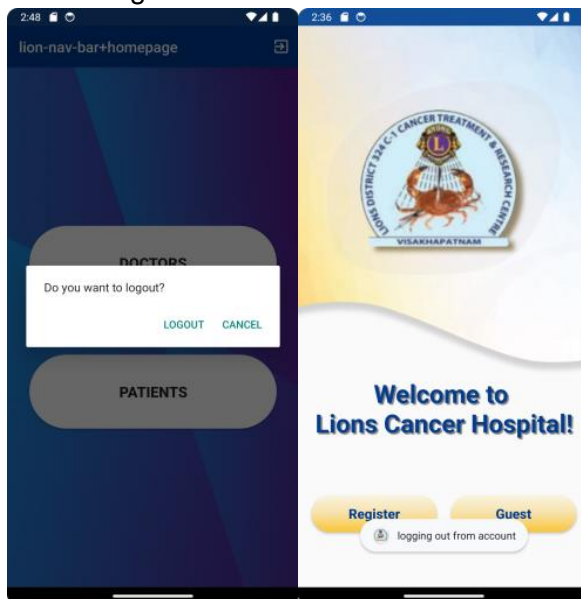
Under the "Requests" tab, admins can approve vaccine appointments by selecting an appointment and updating its status to "confirmed" or another chosen status, which reflects on the user's end.

11. Patient Profile



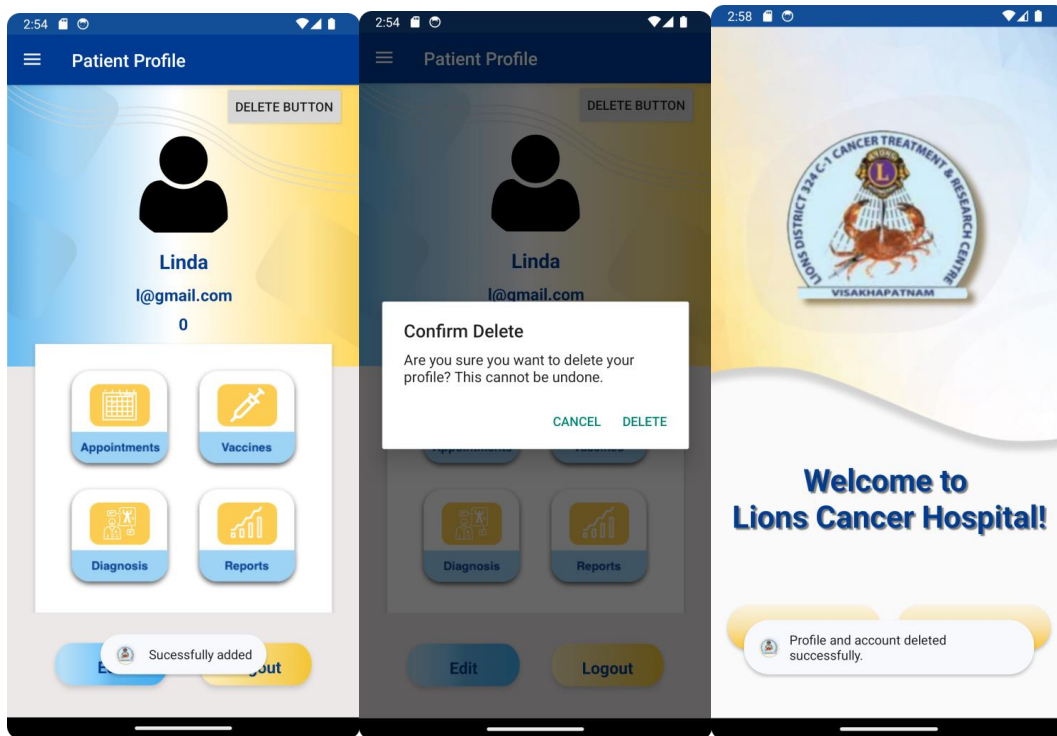
On the patient side, their profile is created when they register. After the user is logged in, they can access their profile through the navbar through the “View Profile” button. The users can add their details, edit them, and submit the form for any changes to apply.

12. Admin Logout



The Admin can logout of the application using the Exit button on the top right and confirm their choice. The user is taken back to the splash page after they are logged out.

13. Delete Patient Profile and Account



Logged-in user can deactivate their account by using “DELETE BUTTON” on the profile dashboard. After confirming their choice, the user’s account is deleted and they are redirected to the splash page. The deleted user won’t be able to login anymore.

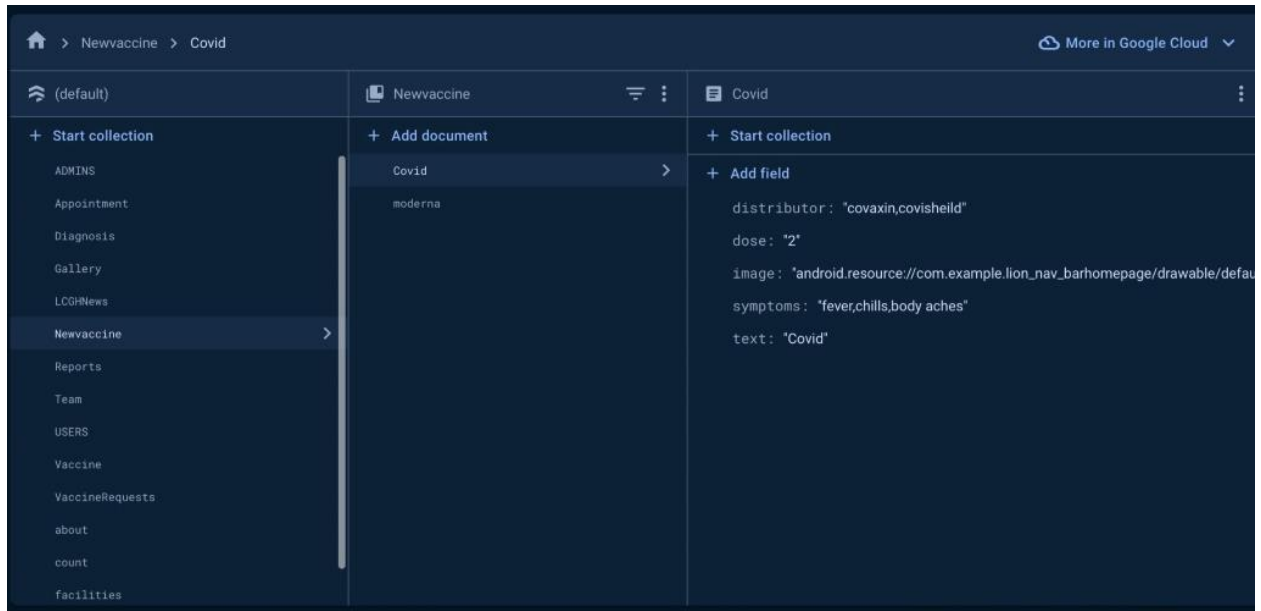
Part 2 - Build It

Firestore Collection Data:

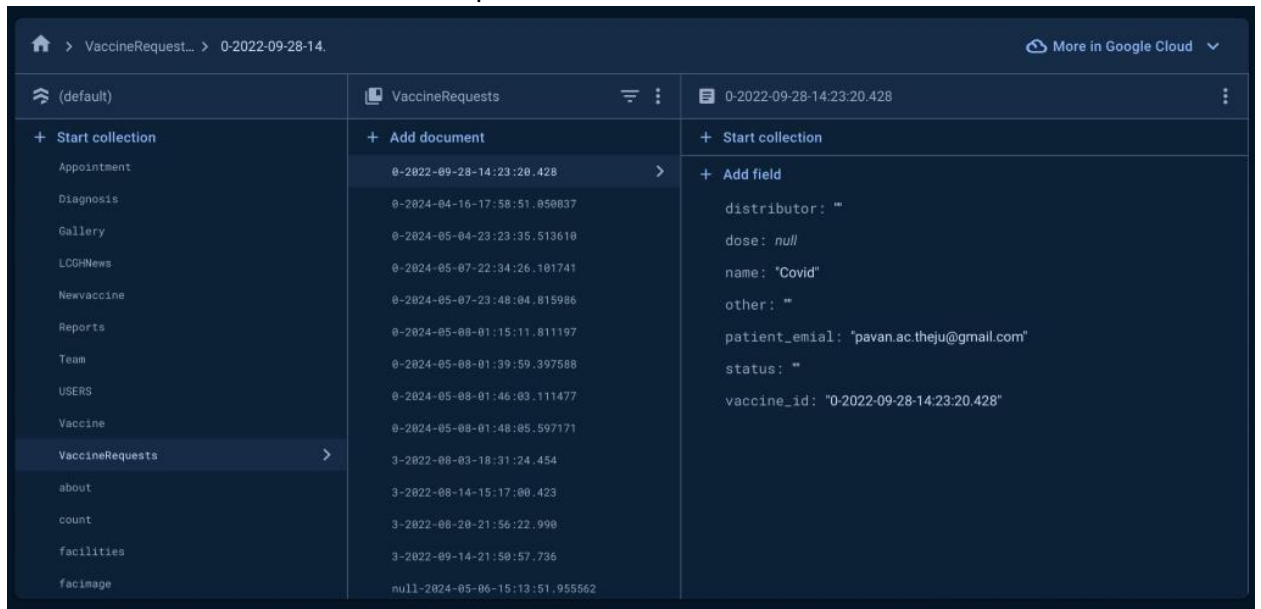
Firestore Collection-1: Users - PatientDashboard

🏠 > USERS > lak@test.com		
⌵ (default)	📄 USERS ⌵ ⋮	📄 lak@test.com
+ Start collection	+ Add document	+ Start collection
Appointment	harshinidonepudi@gmail.com	+ Add field dob: "" email: "lak@test.com" gender: "" height: null id: "0" img_url: "" name: "Lakshit Dua" phone: "396925352" weight: ""
Diagnosis	harshudonepudi@gmail.com	
Gallery	kamesh@gmail.com	
LCGHNews	karan2001@gmail.com	
Newvaccine	l@test.com	
Reports	lak@test.com >	
Team	m@p.com	
USERS >	narak6112001@gmail.com	
Vaccine	naseer@gmail.com	
VaccineRequests	naveen@gmail.com	
about	neha@gmail.com	
count	pavan.ac.theju@gmail.com	
facilities	rahul@gmail.com	
facimage	ram@gmail.com	

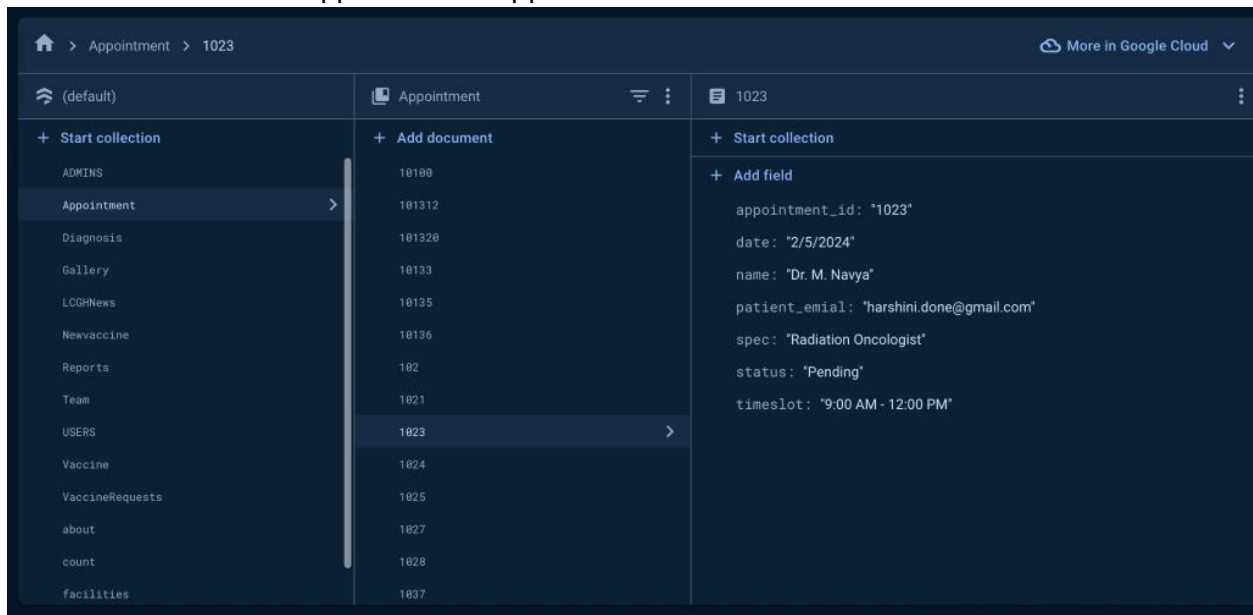
Firestore Collection-2: New Vaccines - Vaccines



Firestore Collection-3: Vaccines Request - Vaccines



Firestore Collection-4: Appointment - Appointments



Part 3 - Run It

Review traffic to your app

- How many requests did you receive?
- How do you know if it was human or a bot?

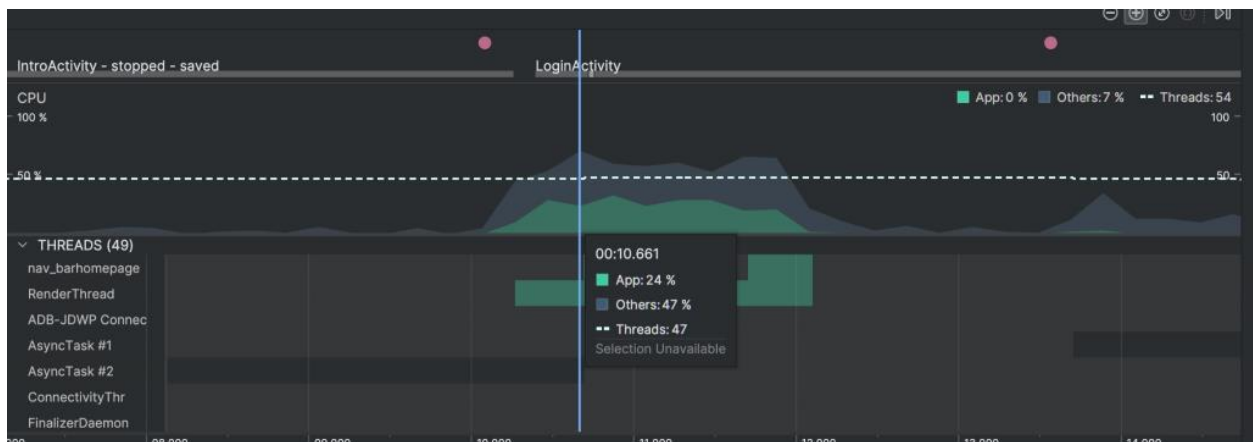
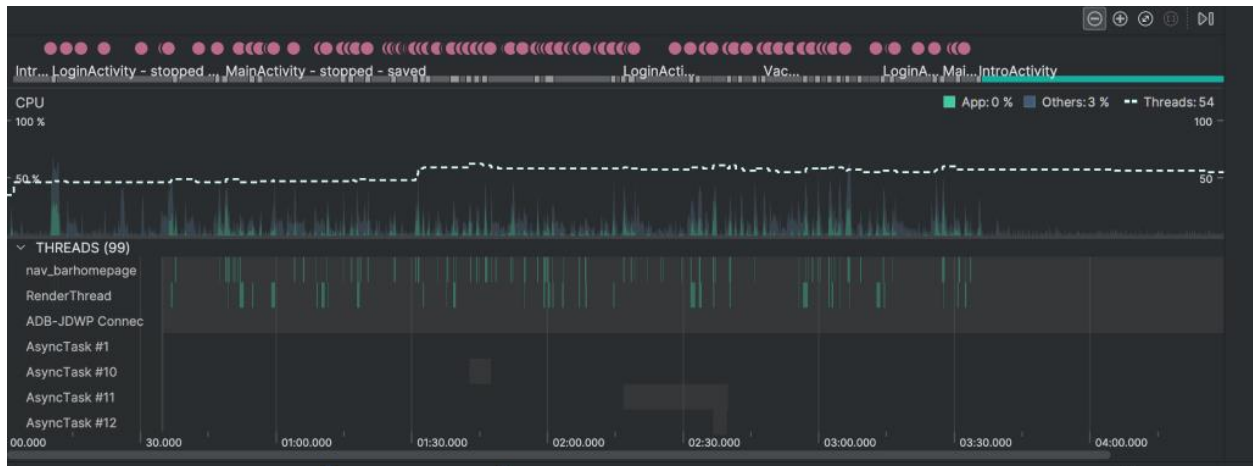
As per our discussion with Professor Danny, since we have built an Android mobile application, these metrics do not apply to our project.

Analytics and Performance metrics:

Measuring frontend performance

1. What is the max memory that it uses?

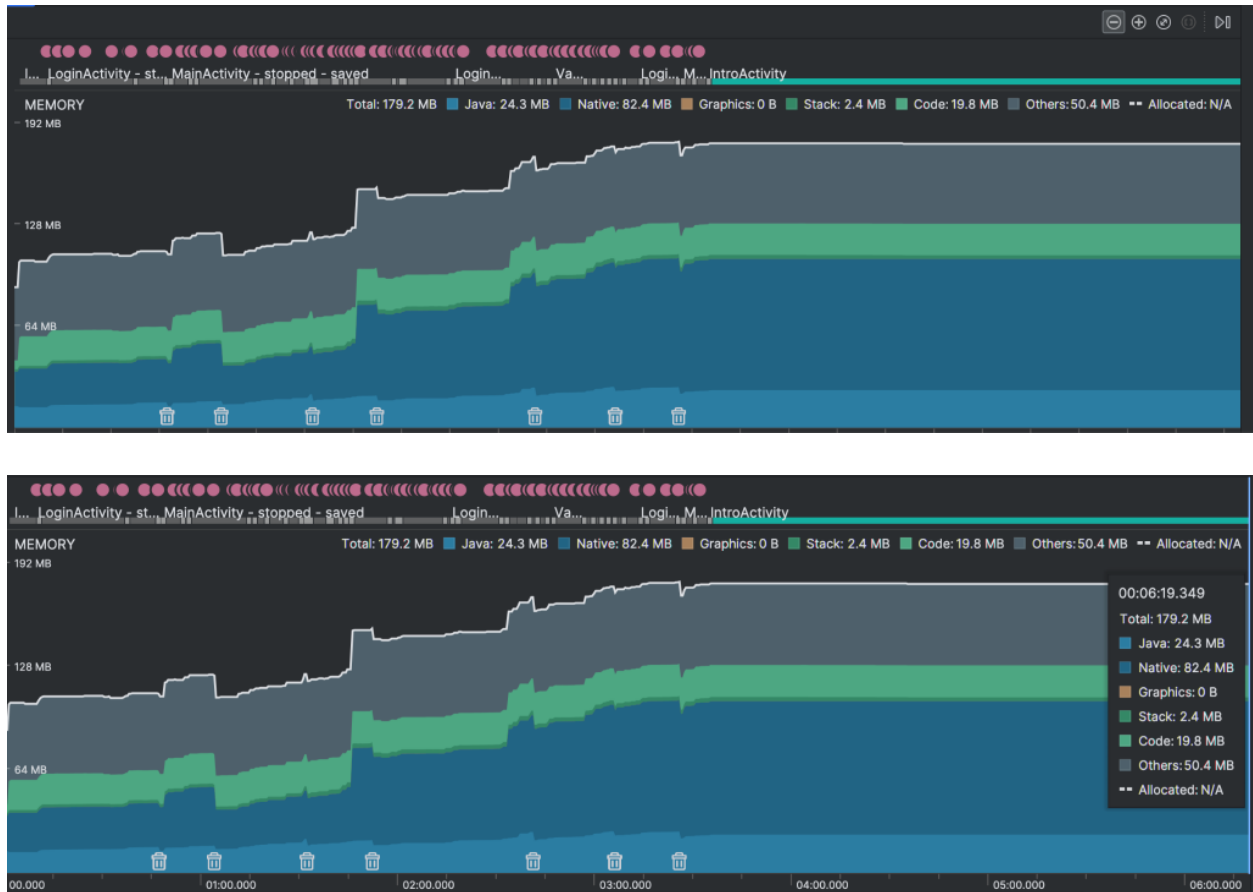
Maximum CPU Usage:



The max CPU usage for our app was 24% and the max CPU usage for Others was 47% so the max CPU usage for app and others combined was 71%

2. What is the max memory that it uses?

Maximum Memory Used:



The maximum memory it used was 179.2 MB

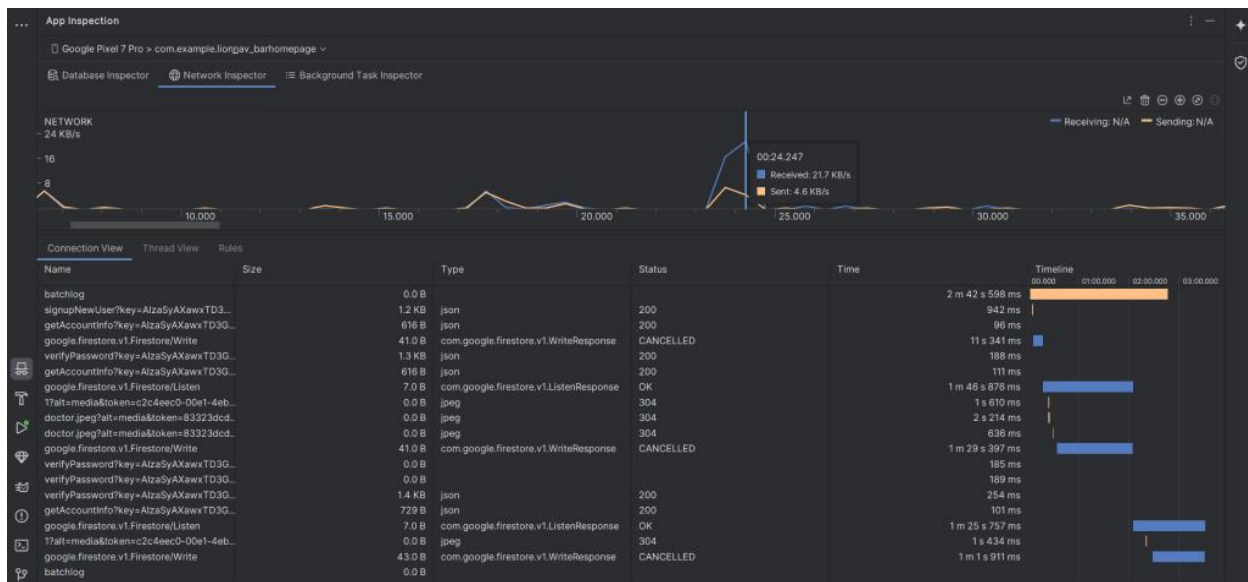
3. How fast did your page load?

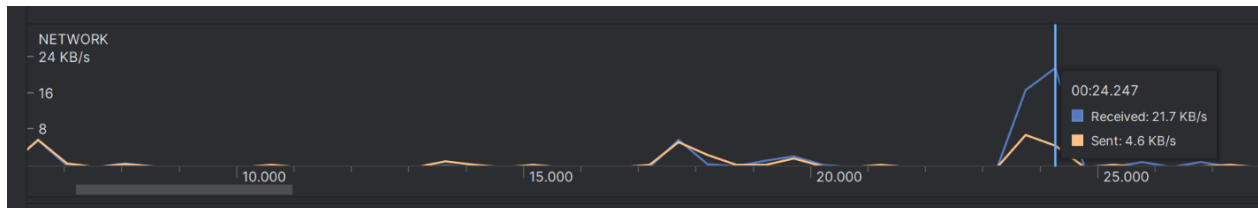


The App Page took 331 ms to load.

4. How much data was transferred?

Analysis of Network Traffic:

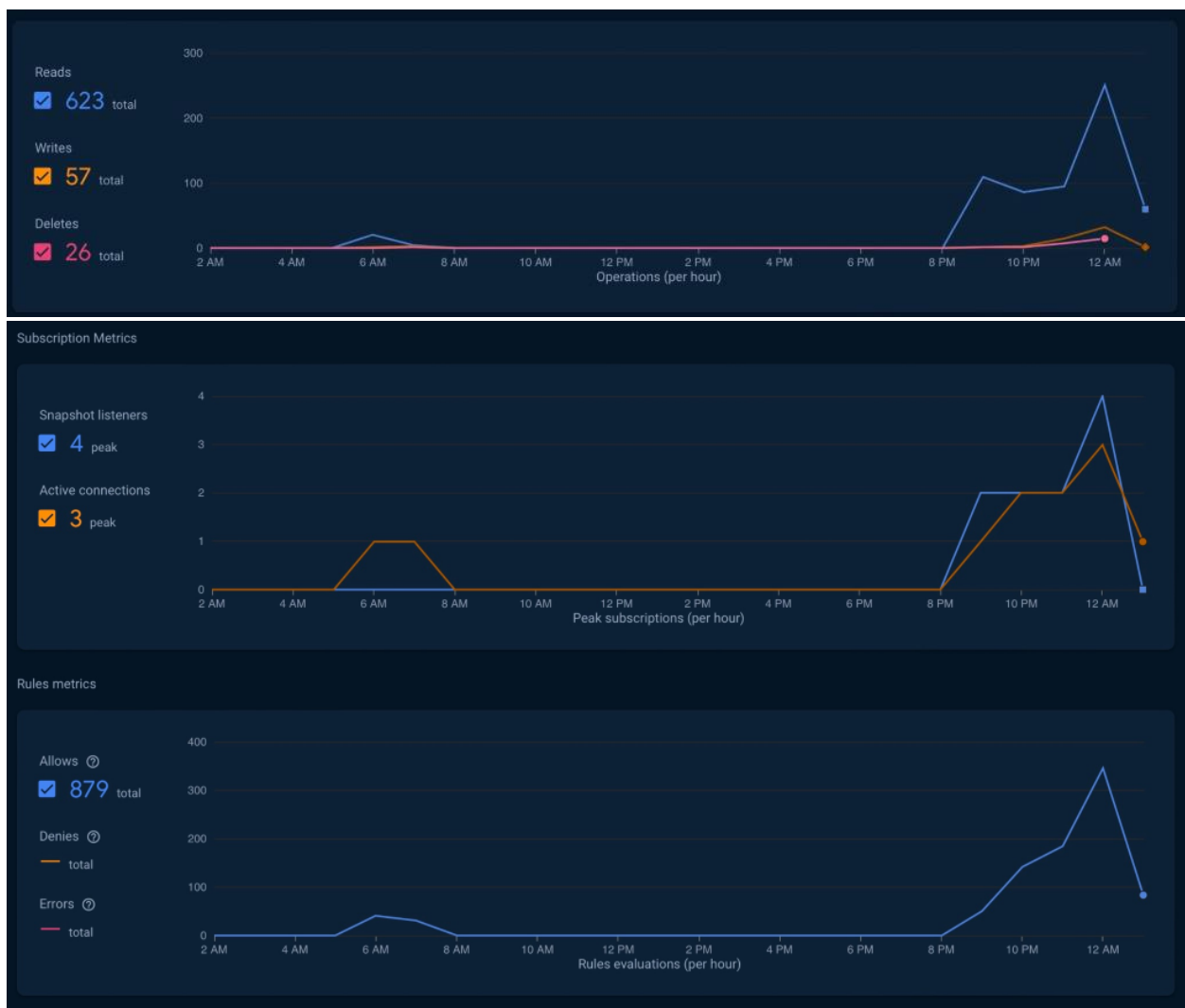




Maximum amount of data transferred ~ 21KB received and 4KB sent
 Total amount of data transferred = 6KB

Measuring Backend Performance

1. How many requests did you make to your database?



Requests to the database: Firestore

- READ: 623
- WRITE: 57

- DELETES: 26