



Dhaka University of Engineering & Technology, Gazipur
Department: Computer Science and Engineering

Digital Health Record Tracker.

As an Apps (Smart Health BD)

Course Name: Mobile Application Development Project

Course Mentors:

Mr. Md. Abu Bakkar Siddique

Assistant Professor

Dept. of CSE

DUET, Gazipur

Mr. Md. Rajibul Islam

Lecturer

Dept. of CSE

DUET, Gazipur



Submitted By



Name : Ripon Sarker
ID: 214010



Name :Md. Anowar Hossen
ID: 214018



Name :Azizul Haque Tutul
ID: 214052



Project Overview

Smart Health BD is an Android-based health record tracking app.

It helps doctors save a patient's medical info and allows other doctors to access it later using a **unique patient ID**.

- Doctors can add new health records
- Patients can book doctors and get advice
- Medical history is saved in Firebase
- Easy and clean interface for all users



Problem Statement

- ❑ Patients often visit different hospitals.
- ❑ Doctors don't know their previous history.
- ❑ Important medical data is lost or not shared.
- ❑ Patients forget old treatment records.



Our Solution

- ❖ Each patient has a unique ID.
- ❖ Doctors can update medical info in the app.
- ❖ New doctors can view past records easily.
- ❖ Makes health tracking simple and effective.



Target Users

- Admin
- Patient
- Doctor

Technology Used

- Figma for design
- Android Studio
- Java
- Firebase Database
Support
- Real-time Database

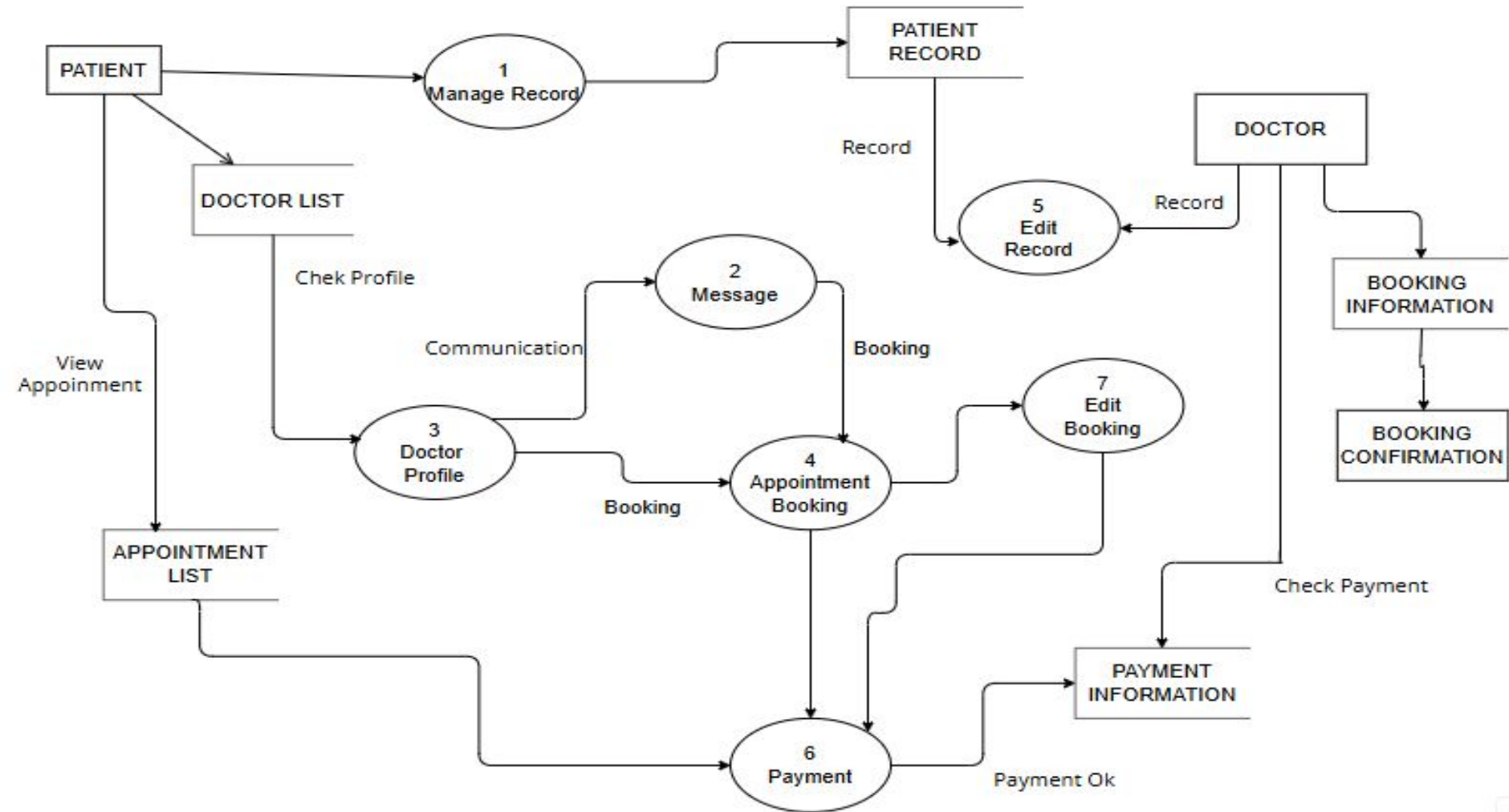


System Key Features

- User Login and Registration
- Password Recovery Option
- Doctor Booking System
- Admin profile
- Patient Profile
- Doctor Profile
- Book Appointment
- Profile Management
- Health Record View

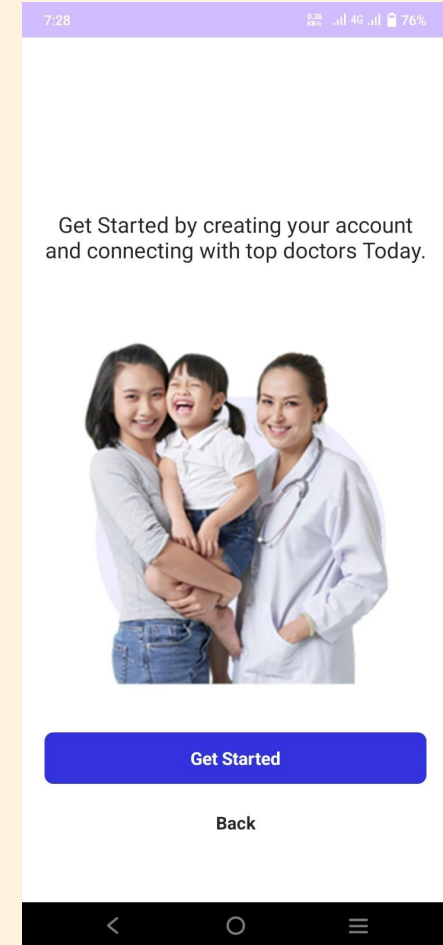
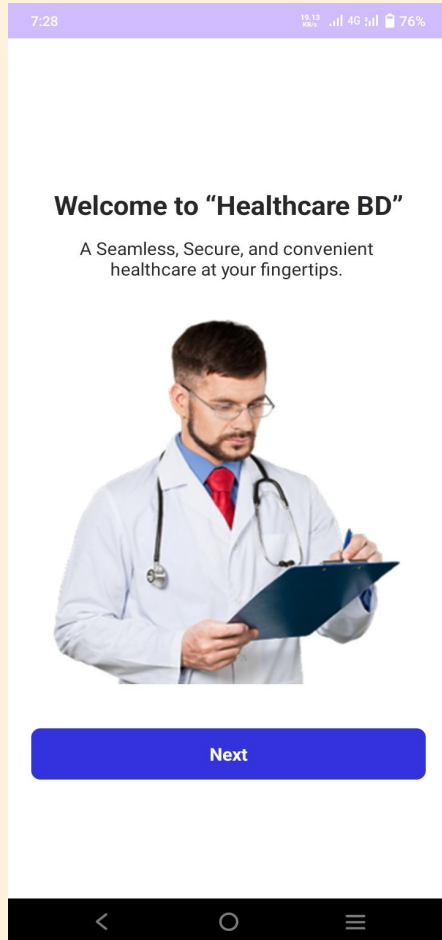


This is our Data Flow Diagram (DFD)





Welcome Screens of the App






User Type Page


Available User Types:

- **Admin**
→ Manages All the System like add doctor, Patients record etc.
- **Doctor**
→ Provides consultations and manages patients
- **Patient**
→ Books appointments and accesses healthcare services

<


User

User type

 Select user ▼

Continue



Sign up/Sign Page

Sign In:

- Existing users log in with Email & Password
- Forgot Password option

Sign Up:

- Only Patients can register
- Collect Name, Email, Password, Confirm Password

9:41

< Sign in your account

Sign In

Your Email

✉ Your email

Your Password

🔒 Your password

☐ Remember me [Forgot Password](#)

Continue

Don't have an account? [Sign Up](#)

or

Sign Up with Apple

Continue with Google

By continuing I agree with Privacy Policy and Terms & Conditions

9:41

< Sign up your account

Sign Up

Your Name

👤 Your name

Your Email

✉ Your email

Your Password

🔒 Your password

Re-Enter Password

🔒 Re-enter password

Continue

or

Sign Up with Apple



Reset Password System Page

Password Reset Flow

Step 1: Forgot Password

- User enters registered email

Step 2: OTP Verification

- Generate 4-digit OTP
- Verify OTP entered by user

Step 3: Set New Password

- Enter New Password & Confirm Password
- Update password in Firebase

4:17 100%

Forgot Password?

Forgot your password? Enter your registered email to receive an OTP. Use it to verify your identity and reset your password.

Email

Enter your Email

Get OTP

11:03 PM 32%

Password Reset

We have sent an OTP to xyz@gmail.com. Enter the OTP to verify your identity and set a new password

Didn't receive OTP? Resend OTP

Get OTP

11:04 PM 32%

Create new password

A strong password should be 12 characters with a mix of letters, numbers, and symbols.

Create New Password

Enter your new password

Confirm Password

Enter your confirm password

Continue



Firestore Authentication

User Authentication with Firestore

- Supports Email/Password Login
- Secure Sign-In and Session Management
- Stores user credentials in Firestore Realtime Database

HealthcareBD Authentication

The following Authentication features will stop working when Firebase Dynamic Links shuts down on August 25, 2025: email link authentication for mobile apps, as well as Cordova OAuth support for web apps.

Search by email address, phone number, or user UID [Add user](#)

Identifier	Providers	Created	Signed in	User UID
anlomgir@gmail.com	✉	Jul 20, 2025	Jul 20, 2025	qnBGT5XRCMdc8INH0cSo8...
mehedi1@gmail.com	✉	Jul 20, 2025	Jul 20, 2025	nYFnmBalkpeqkrNGDArykVg6...
mehedi@gmail.com	✉	Jul 20, 2025	Jul 20, 2025	xcU6qDPvWVZwpAs7galkNab...
sabbir1@gmail.com	✉	Jul 19, 2025	Jul 19, 2025	D5avRIYBYHYuS2zoZXirkjG2...
sohidul@gmail.com	✉	Jul 19, 2025	Jul 19, 2025	wYVPR550ESQL4uR3buyBc9X...
jia@gmail.com	✉	Jul 19, 2025	Jul 19, 2025	dziqRD7RBRTeFymldEtlI4Kwhl...
info.tutul@gmail.com	✉	Jul 19, 2025	Jul 19, 2025	6tcjGbA6ChWMC4sds2St7e13...
jiaur@gmail.com	✉	Jul 19, 2025	Jul 19, 2025	HN0E13bNAUnca03TI0ITwbb...
ehshimul@gmail.com	✉	Jul 19, 2025	Jul 19, 2025	5tCWbU7h7iRmnpF4TaiQ7d...

Data base Flow:

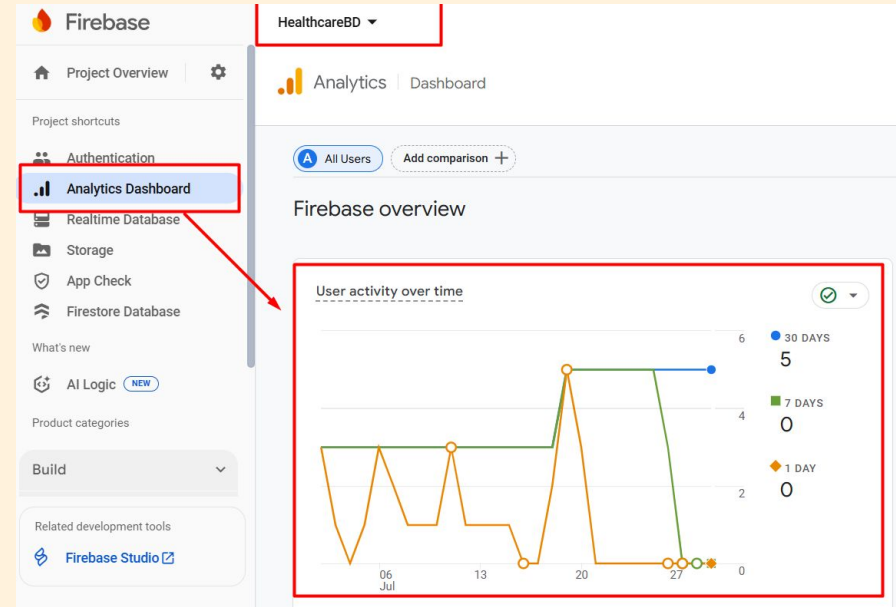
Sign In / Sign Up → Validate → Store → Redirect to Home



Firebase Analytics Dashboard

Real-time Analytics & Monitoring

- Tracks User Sign-Ins, App Usage, Engagement
- Real-time Data via Firebase Console
- Visual Reports for:
 - Active Users
 - Session Duration
 - User Behavior Flow

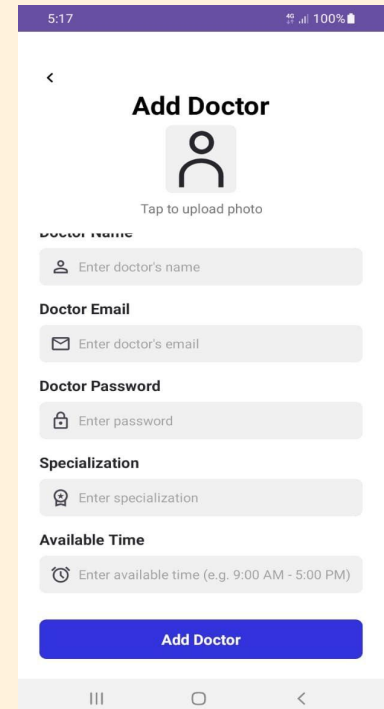
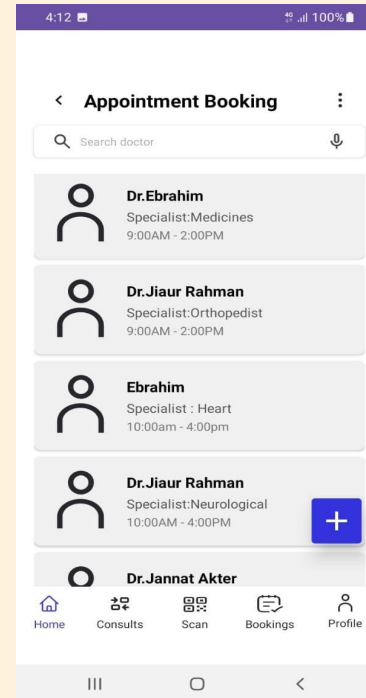




Admin Role

The Admin has control over managing doctor profiles in the system. Admin responsibilities include:

- Monitoring the system activities
- Adding new doctors
- Removing doctor accounts



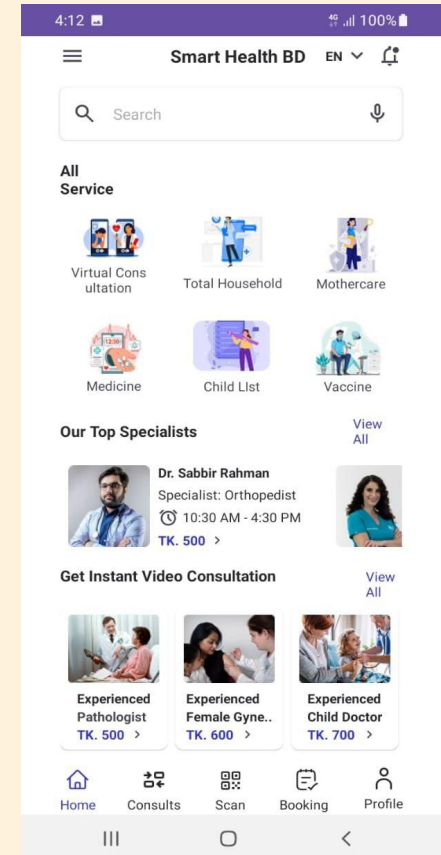


Doctor Role

Doctors can access their profile

Doctor functionalities:

- View Home Page
- Edit patient Record
- View appointment list



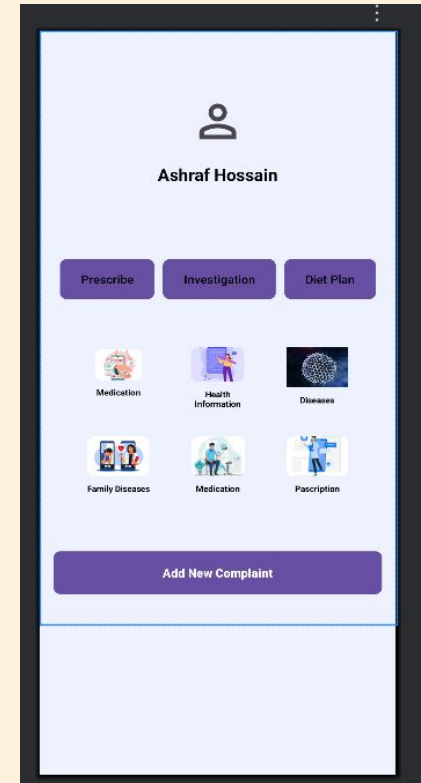


Patient Role

Patients are the main users of the app who can interact with doctors and manage their own health journey

Patient functionalities:

- Home page
- View doctor profiles
- Book appointments
- payments





Payment Method

After selecting a doctor and booking an appointment, users are taken to the payment page.

Here, user can

1. View appointment fees
2. Choose a payment method
3. Confirm and complete the payment securely

Make a Payment

Payment



Conclusion

Smart Health BD helps doctors and patients track health easily. It stores and shares medical data safely.

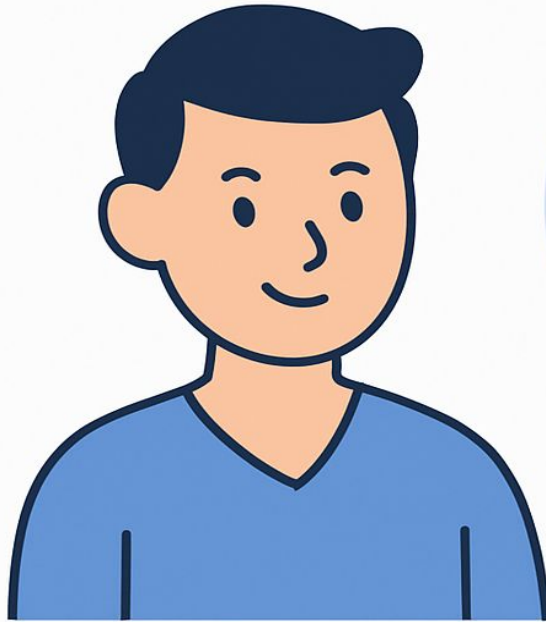
- Helps doctors access patient history anytime
- Ensures accurate and faster diagnosis
- Empowers patients to carry their medical info digitally
- Easy to use for all types of users

In the future, more features like prescription upload, lab report integration, and AI health suggestions can be added.



Thank you for your time!

Any Questions?



*"Feel free to ask anything related to the project."
"We are open to feedback and suggestions."*