Law Management Firm

Objective:

Law management system is an online application to store all the Lawyer Case Record information.

Users of the System:

1. Admin
2. Lawyers
3. Clients / User

Functional Requirements:

- Clients should be able to check Lawyer availability and book the appointment.
- Lawyer should be able to accept or reject appointment.
- Lawyer Case Review Record should be viewable to all departments.
- Billing user to bill based on all the transactions done keep a record of the same.
- **There should be one user per slot.**

While the above ones are the basic functional features expected, the below ones can be nice to have add-on features:

- Multi-factor authentication for the sign-in process
- Payment Gateway

Output/ Post Condition:

- Weekly based lawyer wise case report file
- Standalone application / Deployed in an app Container

Non-Functional Requirements:

Security	• App Platform –UserName/Password-Based Credentials • Sensitive data has to be categorized and stored in a secure manner • Secure connection for transmission of any data
Performance	• Peak Load Performance • Law management System -< 3 Sec • Admin application < 2 Sec • Non Peak Load Performance • Admin Application < 2 Sec
Availability	• 99.99 % Availability
Standard Features	• Scalability • Maintainability • Usability • Availability • Failover
Logging & Auditing	• The system should support logging(app/web/DB) & auditing at all levels

Monitoring	• Should be able to monitor via as-is enterprise monitoring tools
Cloud	• The Solution should be made Cloud-ready and should have a minimum impact when moving away to Cloud infrastructure
Browser Compatible	• IE 7+ • Mozilla Firefox Latest – 15 • Google Chrome Latest – 20 • Mobile Ready

Technology Stack

Front End	React Google Material Design Bootstrap / Bulma
Server Side	Spring Boot Spring Web (Rest Controller) Spring Security Spring AOP Spring Hibernate
Core Platform	OpenJDK 11
Database	MySQL or H2

Platform Pre-requisites (Do's and Don'ts):

1. The React app should run in port 8081. Do not run the React app in the port: 3000.
2. Spring boot app should run in port 8080.

Key points to remember:

1. The id (for frontend) and attributes(backend) mentioned in the SRS should not be modified at any cost. Failing to do may fail test cases.
2. Remember to check the screenshots provided with the SRS. Strictly adhere to id mapping and attribute mapping. Failing to do may fail test cases.
3. Strictly adhere to the proper project scaffolding (Folder structure), coding conventions, method definitions and return types.
4. Adhere strictly to the endpoints given below.

Application assumptions:

1. The login page should be the first page rendered when the application loads.
2. Manual routing should be restricted by using AuthGaurd by implementing the canActivate interface. For example, if the user enters as

http://localhost:3000/signup or http://localhost:3000/home the page should not navigate to the corresponding page instead it should redirect to the login page.

3. Unless logged into the system, the user cannot navigate to any other pages.
4. Logging out must again redirect to the login page.
5. To navigate to the admin side, you can store a user type as admin in the database with a username and password as admin.
6. Use admin/admin as the username and password to navigate to the admin dashboard.

Validations:

1. Basic email validation should be performed.
2. Basic mobile validation should be performed.

Project Tasks:

API Endpoints:

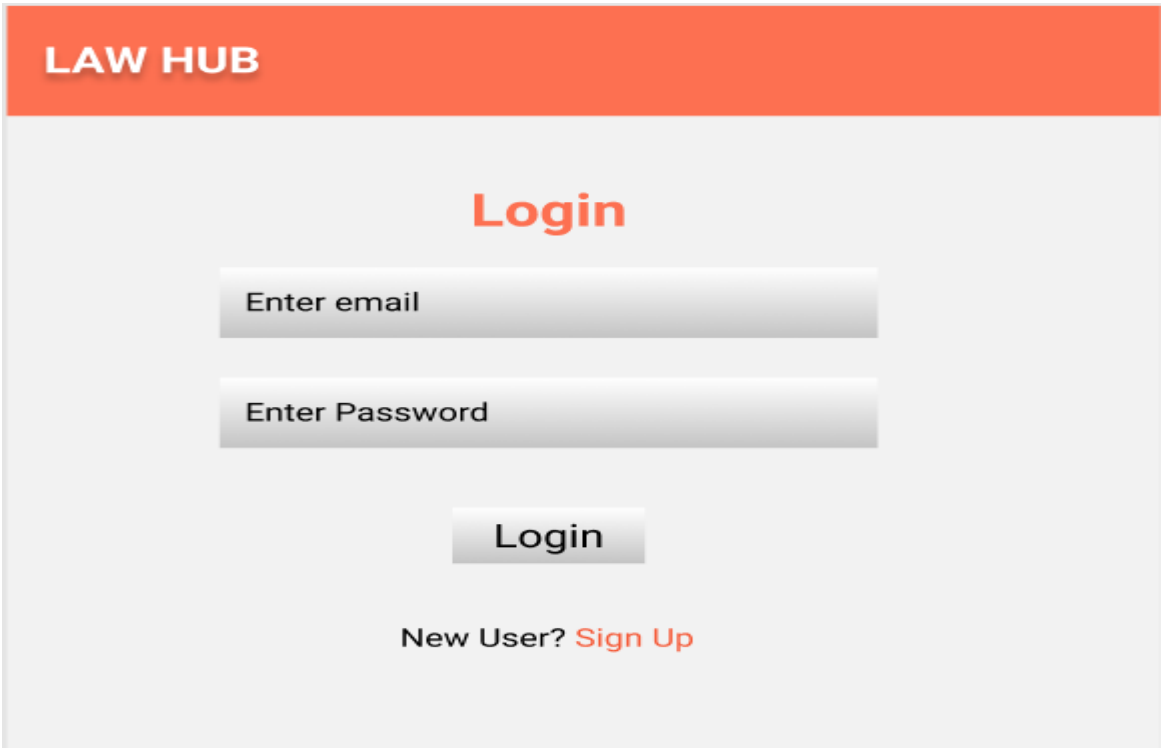
CLIENTS			
Action	URL	Method	Response
Login	/login	POST	true/false
Signup	/signup	POST	true/false
Get All Lawyer	/Lawyer	GET	Array of Lawyers
Add Booking	/booking	POST	Booking Created
Remove Booking	/booking/{id}	DELETE	Booking Removed
Get Case Record	/Case Record/{id}	GET	Return the Case Record based on id
LAWYER			
Action	URL	Method	Response
Get All Booking	/Lawyer/booking	GET	Array of Booking
Approve Booking	/ Lawyer/booking	POST	Booking Appproved
Reject Booking	/ Lawyer/booking/{id}	DELETE	Booking Deleted
Add Case Record	/Lawyer/Case Record	POST	Case Record Created
Update Case Record	/Lawyer/Case Record/{id}	PUT	Case Record Updated
Delete Case Record	/Lawyer/Case Record/{id}	DELETE	Case Record Deleted
ADMIN			
Get All Lawyer	/Admin/Lawyer	GET	Array of Lawyer
Get Lawyer By Id	/Admin/Lawyer/{id}	GET	Return Lawyer details by Id
Add Lawyer	/Admin/Lawyer	POST	Lawyer Created
Update Lawyer	/Admin/Lawyer/{id}	PUT	Lawyer Updated
Delete Lawyer	/Admin/Lawyer/{id}	DELETE	Lawyer Deleted

Frontend:

Client:

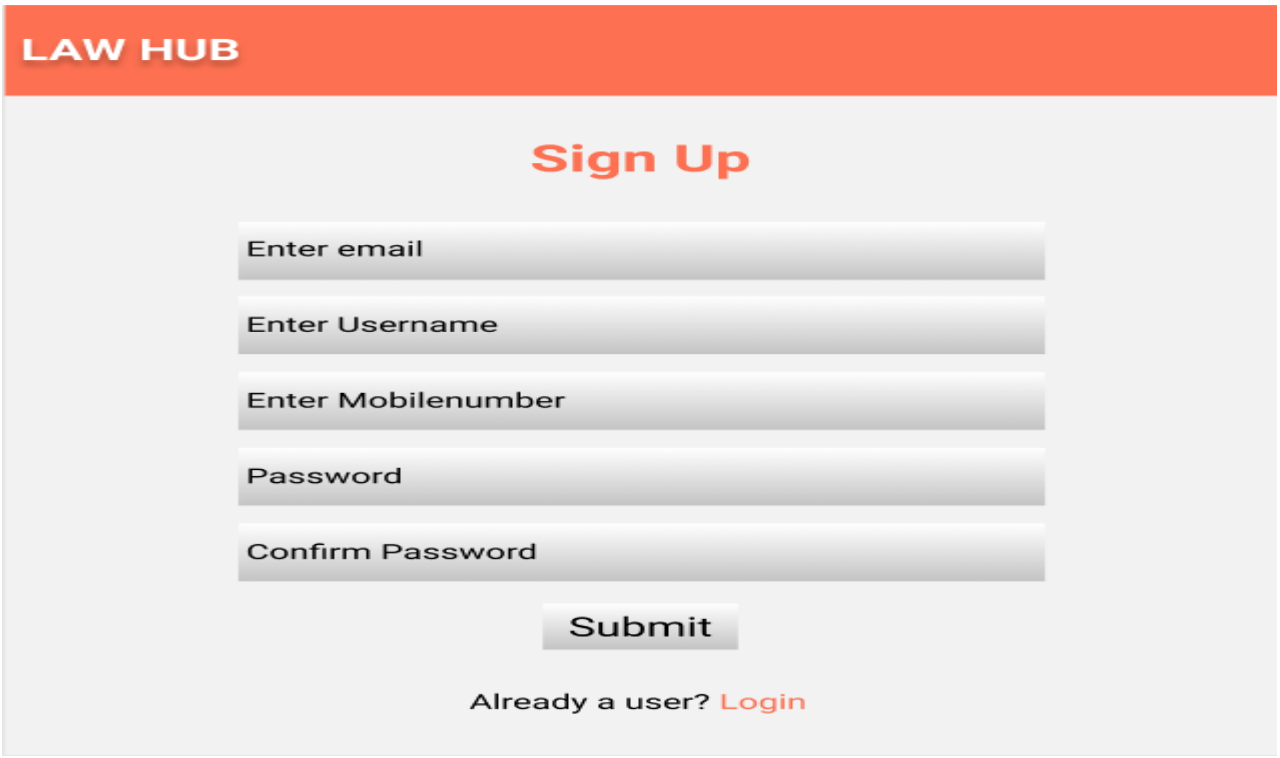
Login:

Output Screenshot:



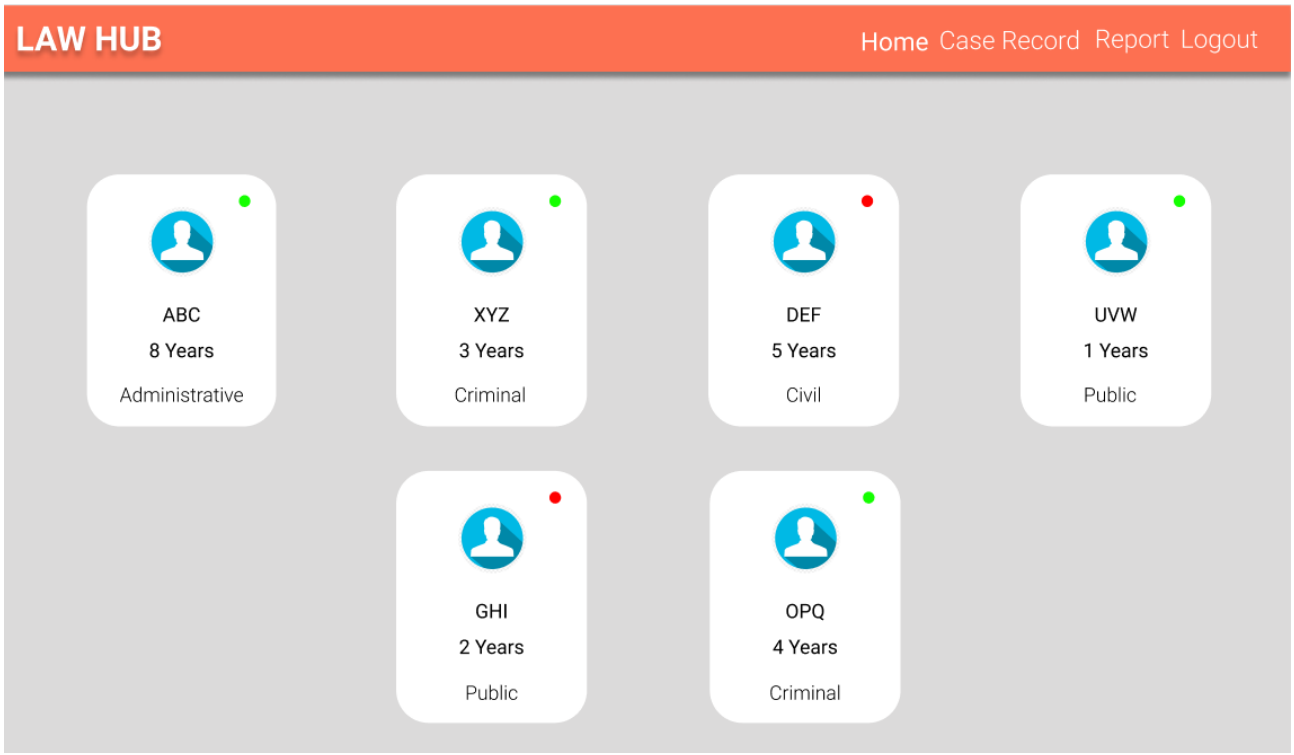
Signup:

Output Screenshot:



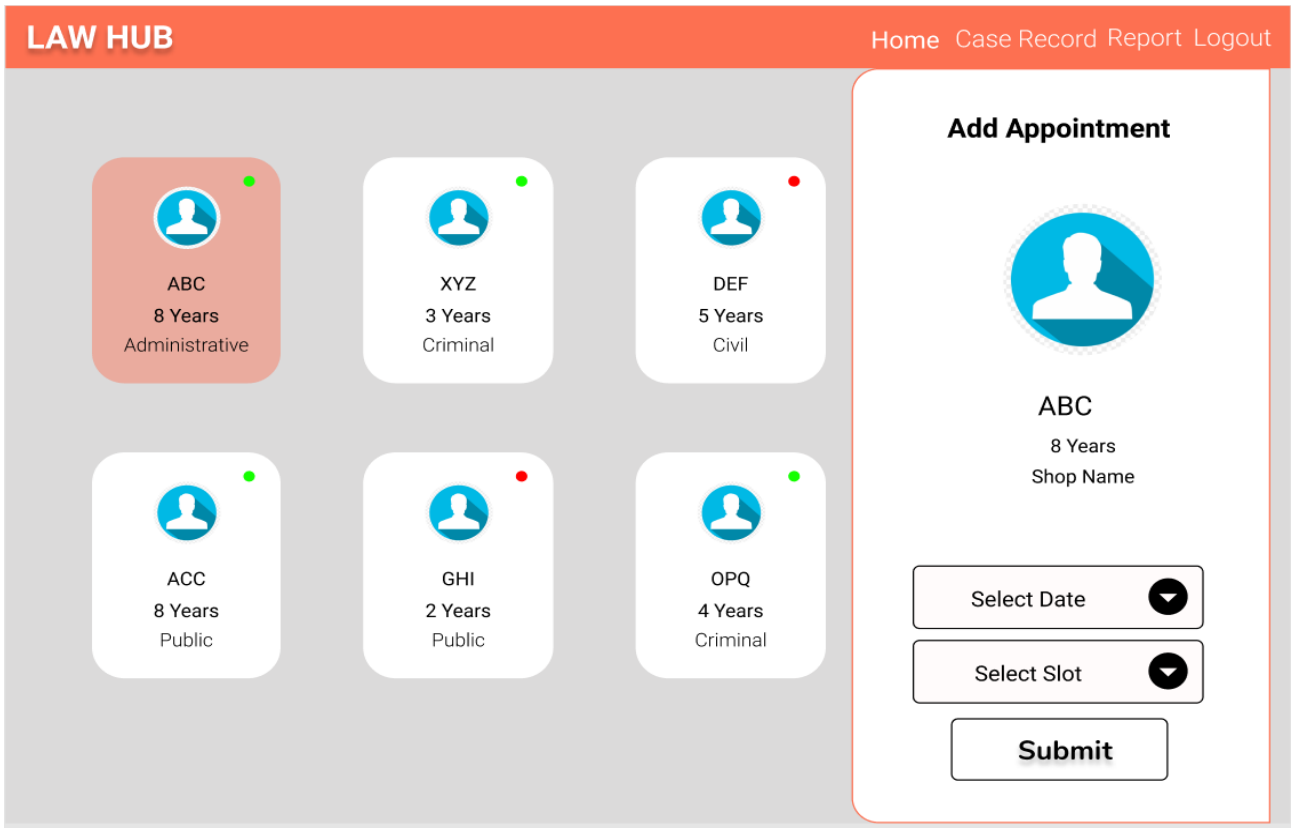
Home:

Output Screenshot:



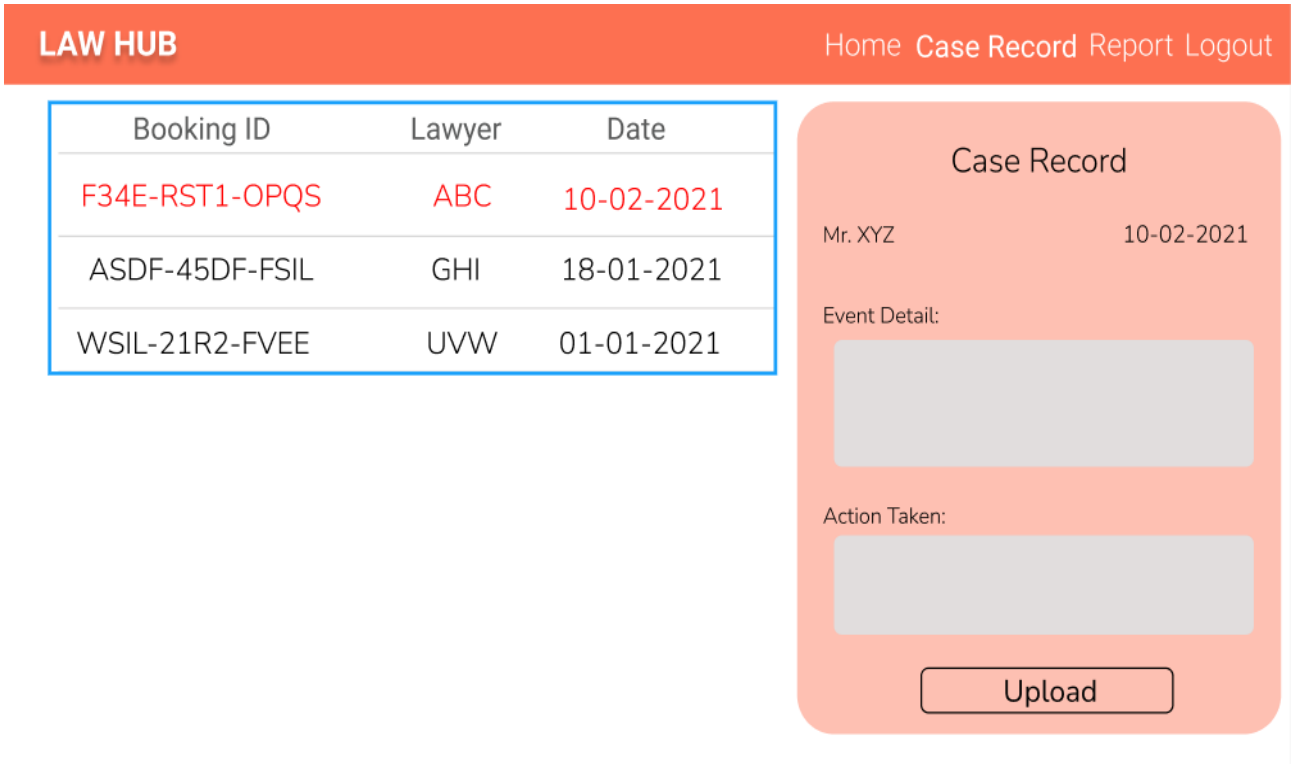
Appointment:

Output Screenshot:



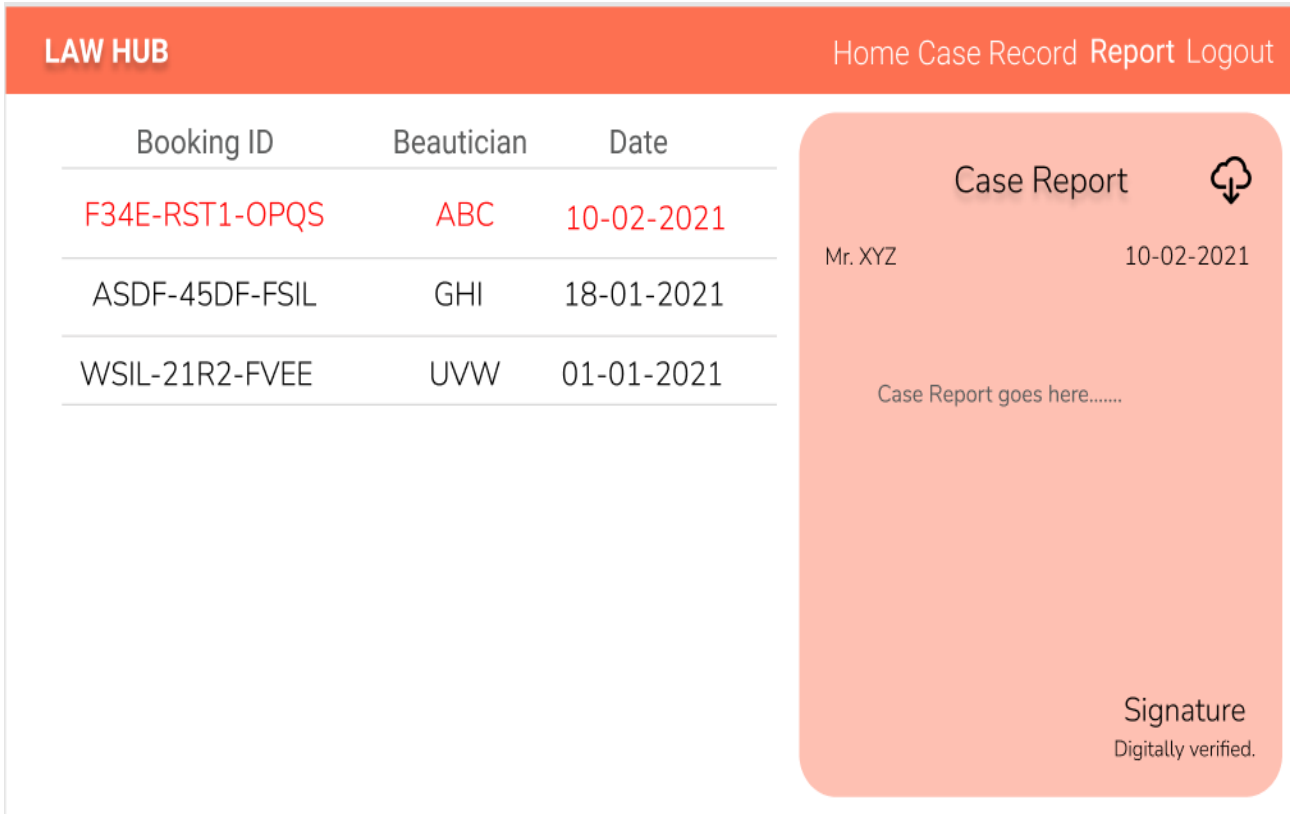
Case Record:

Output Screenshot:



Report:

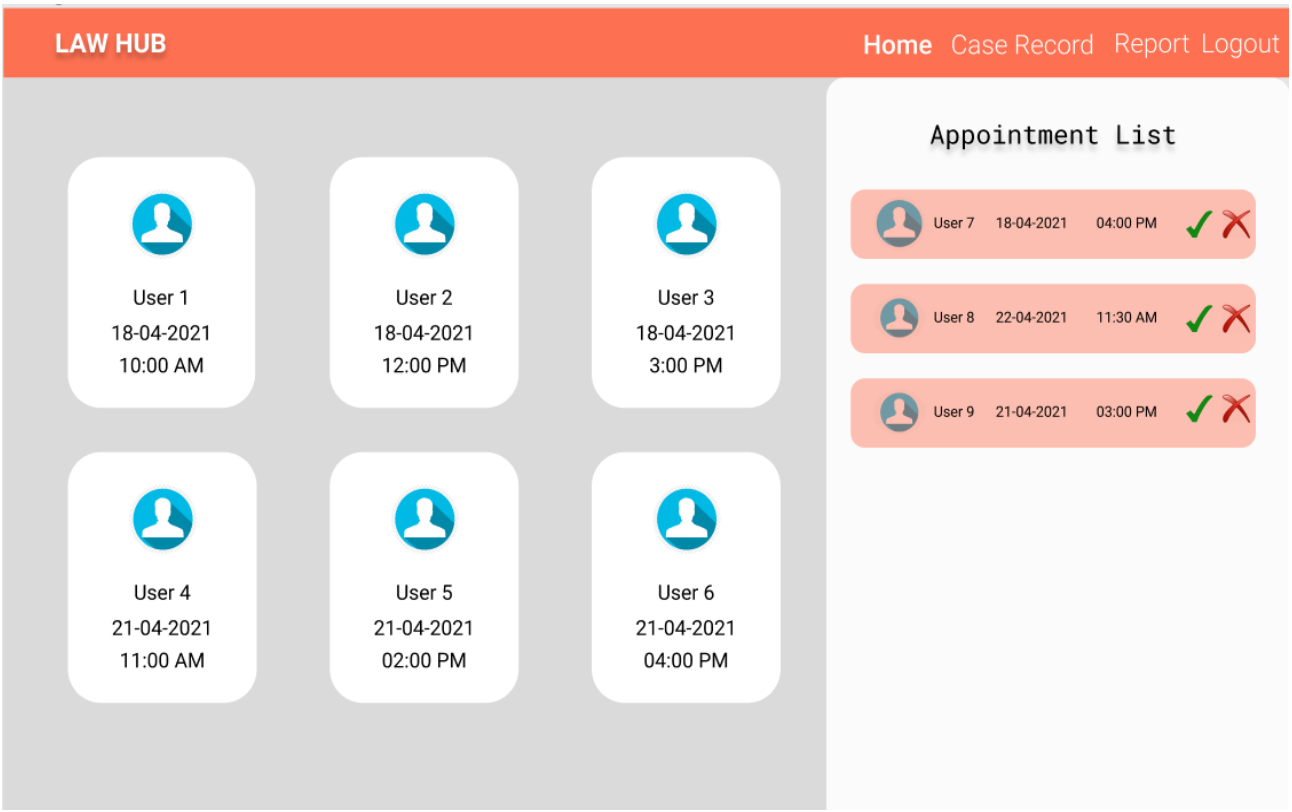
Output Screenshot:



Lawyer:

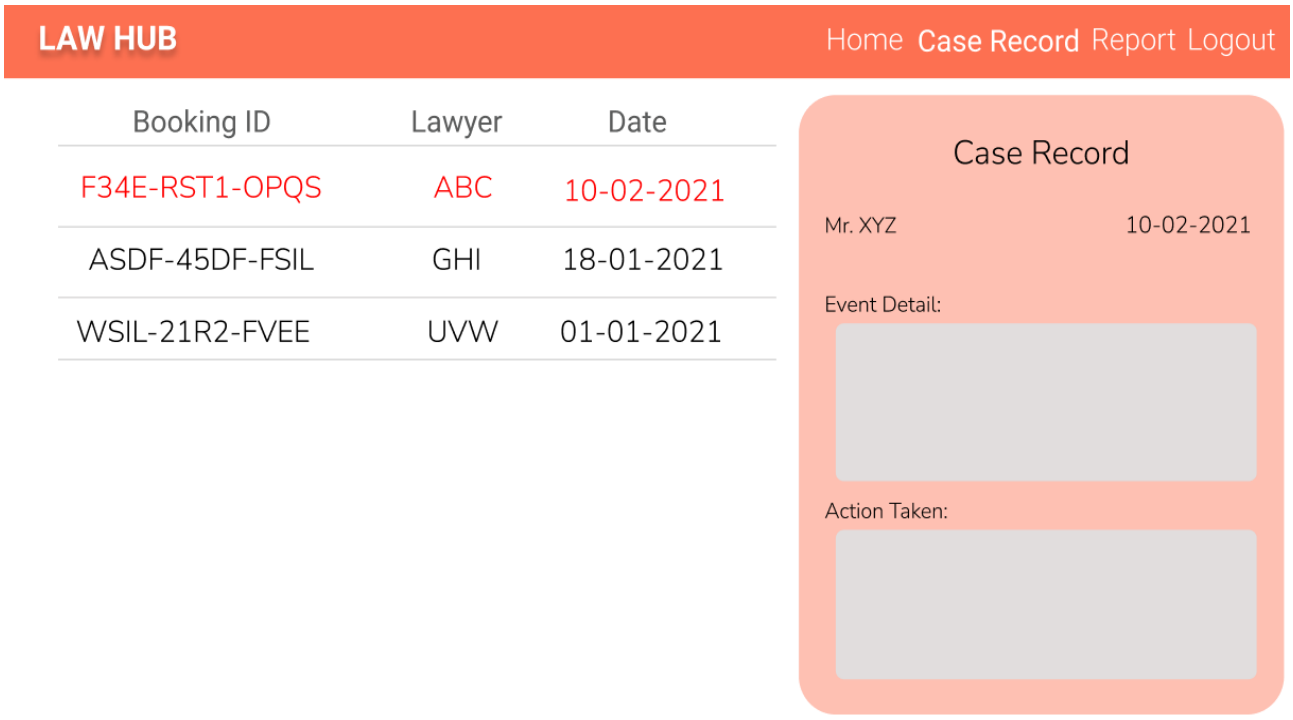
Home:

Output Screenshot:



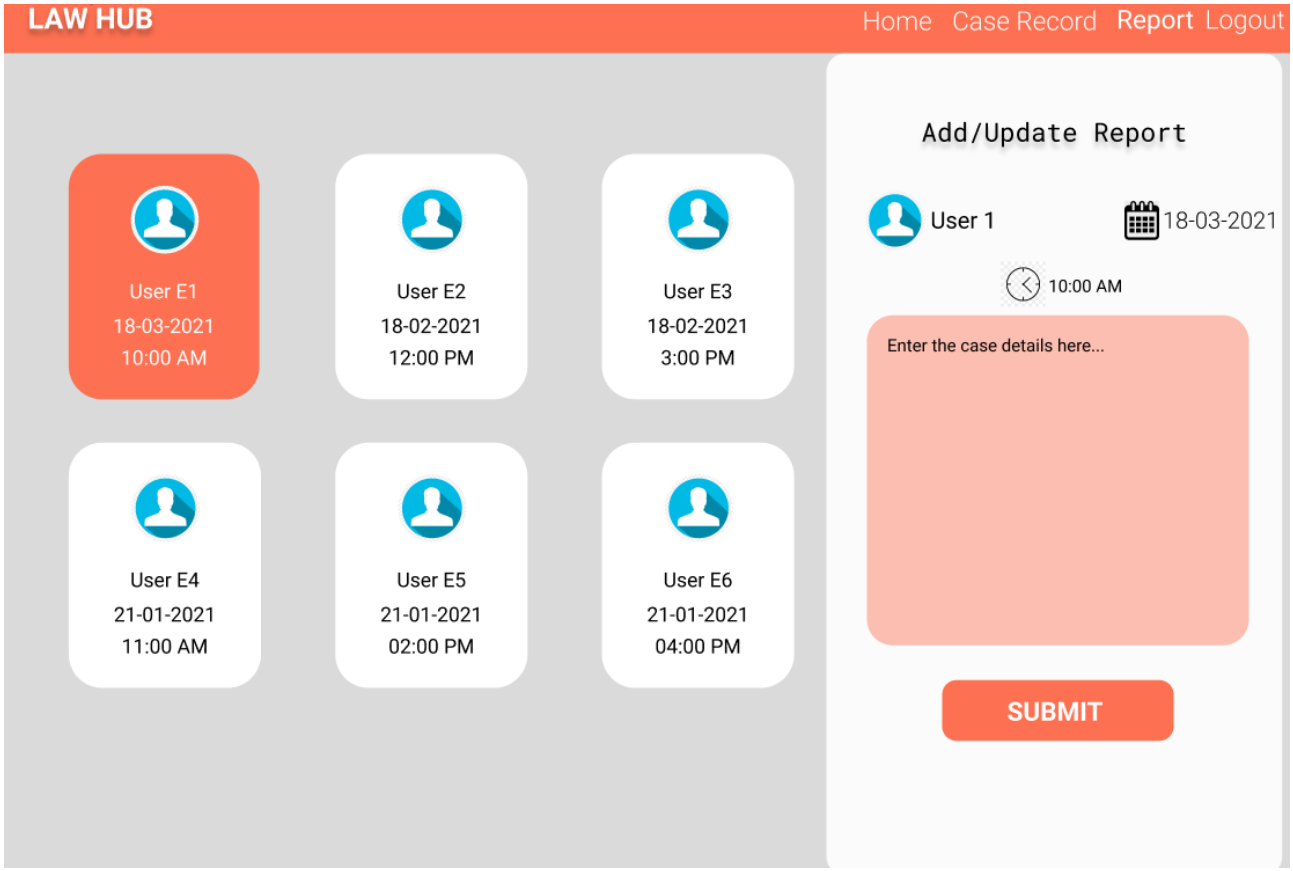
Case Record:

Output Screenshot:



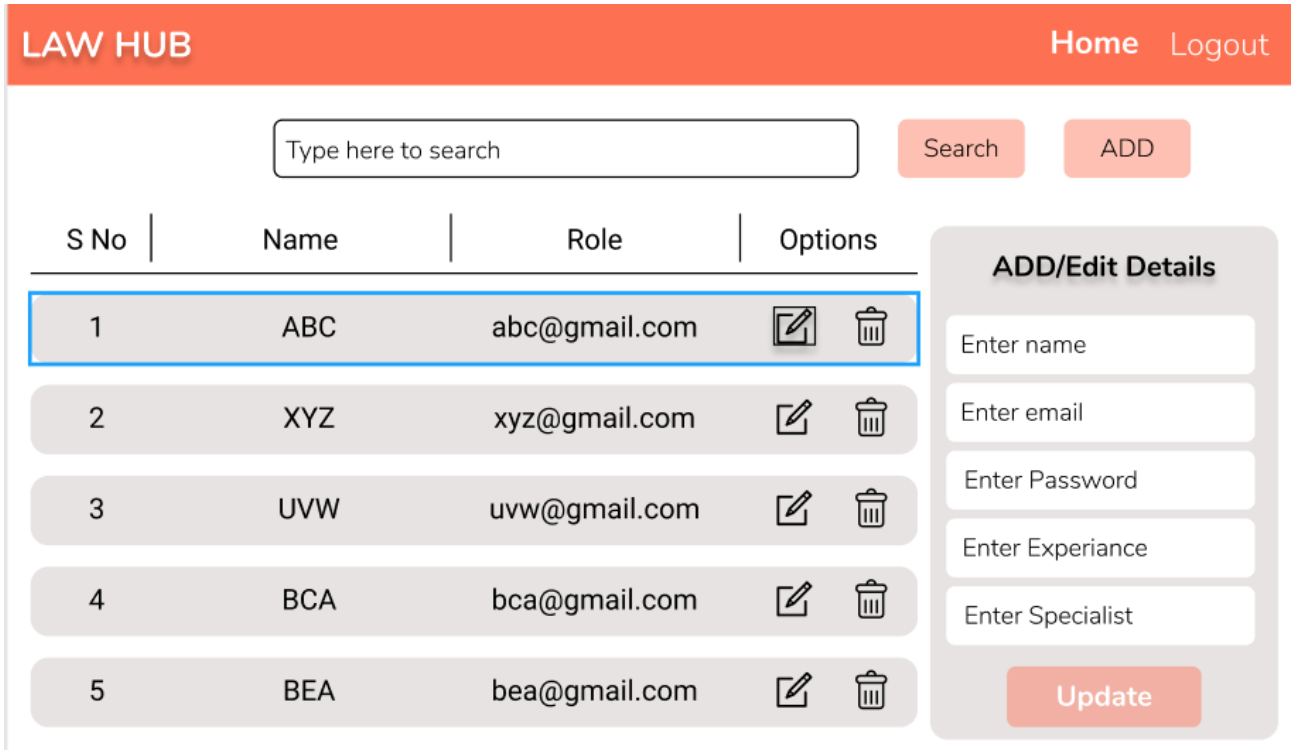
Report:

Output Screenshot:



ADMIN:

Home:



Backend:

Class and Method description:

Model Layer:

1. UserModel: This class stores the user type (admin or the customer) and all user information.
    a. Attributes:
        i. email: String
        ii. password: String
        iii. username: String
        iv. mobileNumber: String
        v. active: Boolean
        vi. role: String
    b. Methods: -
2. LoginModel: This class contains the email and password of the user.
    a. Attributes:
        i. email: String
        ii. password: String
    b. Methods: -
3. BookingModel: This class stores the appointment details.
    a. Attributes:
        i. bookingId: String
        ii. clientDetail: UserModel
        iii. LawyerDetail: LawyerModel
        iv. lawfirmName: String
        v. date: Date
        vi. time: Date
        vii. bookingStatus: Boolean
    b. Methods: -
4. CaseRecordModel: This class stores the Case Record details for the users.
    a. Attributes:
        i. Case RecordID: String

ii. userId: UserModel
iii. date: Date
iv. eventDetail : String
v. actionTaken: String
vi. issuedBy: UserModel

b. Methods: -

5. ReportModel: This class stores the.
    a. Attributes:
        i. reportId: String
        ii. appointmentDetail: BookingModel
        iii. Case RecordDetail: CaseRecordModel
        iv. date: Date
        v. report: String
        vi. issuedBy: UserModel
    b. Methods: -

Controller Layer:

6. SignupController: This class control the user signup
    a. Attributes: -
    b. Methods:
        i. saveUser(UserModel user): This method helps to store users in the database and return true or false based on the database transaction.
7. LoginController: This class controls the user login.
    a. Attributes: -
    b. Methods:
        i. checkUser(LoginModel data): This method helps the user to sign up for the application and must return true or false
8. BookingController: This class controls the adding, upding, removing the booking details.
    a. Attributes: -
    b. Methods:
        i. List<BookingModel> getBooking(): This method helps the admin to fetch all Booking from the database.
        ii. List< BookingModel > getBookingByLawyer(): This method helps the Lawyer to retrieve their all the booking from the database.

iii. BookingModel bookingById(String id): This method helps to retrieve a booking from the database based on the bookingId.

iv. statusModifier(BookingModel data): This method helps the Lawyer to edit a booking and save the status as Aprrove or Reject.

v. addBooking(BookingModel data): This method helps the client to add a new booking to the database.

vi. removeBooking(String id): This method helps the Lawyer to delete a booking from the database.

9. CaseRecordController: This class helps in adding the Case Record, deleting the Case Record from the cart, updating the Case Record.
    a. Attributes: -
    b. Methods:
        i. addCase Record(Case RecordModel data): This method helps the Lawyer to add the Case Record to the user.
        ii. updateCase Record(Case RecordModel data): This method helps to update the Case Record.
        iii. deleteCase Record(String id): This method helps the Lawyer to delete a Case Record from the user.
        iv. viewCase Record(String id): This method helps the Lawyer to view the Case Record.
10. ReportController: This class helps with the Lawyer to create/read/update the report details about the Clients.
    a. Attributes: -
    b. Methods:
        i. List<ReportModel> getReportDetails(String id): This method helps to list the details based on the userI id.
        ii. addReport(ReportModel data): This method helps to save the report details in the database.
        iii. updateReport(CheckupModel data): This method helps to update the report details and store it in the database.