



AN-NAJAH NATIONAL UNIVERSITY  
FACULTY OF ENGINEERING & INFORMATION  
TECHNOLOGY  
DEPARTMENT OF COMPUTER ENGINEERING

## GRADUATION PROJECT I

# JUSTICE ROOTS

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# Disclaimer

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# Abstract

This project seeks to provide solutions to problems in the judiciary system, and enhance the working conditions of lawyers and judges, in addition to increase the people's awareness of statutory matters, which impact their lives significantly, basically the serious and unordinary conditions which our country goes through, and the long wasted time spent in the long queues at courts are our main motivation to achieve this project. The core feature of this project is the development of an innovative online court system. We implemented a reliable, user-friendly, and fully customized video call platform, integrating advanced technologies to streamline court proceedings. Additionally, a dynamic and highly configurable administrative dashboard was designed to empower the administrative commission in managing court procedures efficiently. Recognizing the importance of legal representation, we included a dedicated page to assist individuals in finding and hiring the most suitable lawyers for their cases. To enhance public awareness and foster collaboration, we established a legal community platform, enabling individuals, lawyers, and judges to share advice, updates, and insights.

The project commenced with defining the required features and conducting an in-depth analysis of the statutory system. Our scope was carefully narrowed to a specific segment, taking into account the rationale behind each feature and evaluating its feasibility from both legal and technical perspectives. Once the scope was established, we selected the appropriate technologies to implement the project effectively. React was chosen for building the frontend, Express for the backend, and MongoDB as the database, as these technologies aligned perfectly with our requirements. Development proceeded in parallel for the user interface and backend, prioritizing features based on their importance. Each feature was completed incrementally, followed by rigorous testing, allowing for iterative progress until all requirements were fulfilled.

A robust plan demands constant review and adaptation, we encountered numerous challenges, including technical hurdles in designing and building the online court platform and difficulties in acquiring and integrating accurate legal information. However, through persistent problem-solving, collaboration, and iterative development, we successfully overcame these obstacles. The end result is a fully functional and well-designed solution, delivered as both web and mobile applications, meeting the project's objectives effectively.

# Chapter 1

## Introduction

### 1.1 Background and Motivation

The legal system is an essential pillar of any society, ensuring justice, fairness, and the resolution of disputes. However, navigating this system can often be a daunting task for ordinary citizens. From understanding legal jargon to accessing the right legal representation, the complexities of the judicial process create barriers for many. The digital transformation of various industries has highlighted the potential to use technology to address such challenges, paving the way for solutions that improve accessibility, transparency, and efficiency in legal systems.

JusticeRoots was conceptualized to bridge the gap between citizens, lawyers, and judges by creating an integrated online court system. The motivation for this project stems from the observation that traditional legal processes are often slow, expensive, and inaccessible for many individuals. Furthermore, the need for real-time communication, efficient case management, and personalized legal assistance has grown significantly in the modern era.

By leveraging technology, JusticeRoots aims to simplify legal processes and foster better connections among stakeholders in the judicial system. The platform aspires to be a one-stop solution for individuals seeking legal assistance, lawyers looking to grow their client base, and judges aiming to streamline case management. With features like real-time chat, lawyer recommendations, case tracking, and a user-friendly social media-inspired interface, JusticeRoots seeks to redefine how people interact with the legal system.

### 1.2 Objectives

The primary objectives of JusticeRoots are:

1. **Enhancing Accessibility:** To make legal services more accessible to citizens by providing an online platform that connects users with legal professionals and resources.

2. **Improving Efficiency:**To streamline the legal process through digital tools for case management, communication, and documentation, reducing delays and costs.
3. **Fostering Collaboration:**To facilitate seamless communication and collaboration among clients, lawyers, and judges using real-time chat and notification systems.
4. **Providing Personalized Recommendations:** To implement an AI-powered recommendation system that helps clients find suitable lawyers based on their legal needs and preferences.
5. **Promoting Transparency:** To ensure users can track their case progress, appointments, and legal documents in a clear and organized manner.

### 1.3 Significance

JusticeRoots holds significant importance in addressing key challenges faced by modern legal systems. By introducing an innovative online platform, it offers the following benefits:

1. **Democratizing Legal Services:** JusticeRoots empowers citizens by providing equal access to legal resources and professionals, regardless of their socio-economic background or location.
2. **Bridging Communication Gaps:** The platform fosters clear and direct communication between clients, lawyers, and judges, ensuring that misunderstandings and delays are minimized.
3. **Streamlining Judicial Processes:** By offering tools for case management, documentation, and real-time updates, JusticeRoots reduces inefficiencies in the legal process, benefiting both professionals and clients.
4. **Encouraging Technological Adoption in Law:** JusticeRoots showcases the potential of integrating technology into legal systems, inspiring further innovation and adoption within the industry.
5. **Enhancing User Experience:** With its user-friendly interface and personalized features, JusticeRoots ensures that legal interactions are no longer intimidating or overly complicated.
6. **Building Trust and Transparency:** By allowing users to track their case progress and access legal information effortlessly, the platform promotes transparency and confidence in the judicial process.

### 1.4 Report Organization

This report is systematically organized to provide a comprehensive overview of the JusticeRoots project. It begins with an Introduction that outlines the project's purpose,

objectives, and significance. The Literature Review follows, offering background information and contextualizing the project within existing research. The Methodology section details the design, development, and implementation processes, including the selection of components and technologies. The Results and Analysis section presents the observed analysis and describes the overall performance. The Discussion interprets the challenges faced and what was done to overcome them, while the Conclusion summarizes the findings and suggests future work. The report concludes with References and Appendices, providing citations and supplementary information to support the main content.

## **Chapter 2**

# **Literature Review**

The Literature Review explores existing studies, technologies, and methodologies relevant to the development and implementation of JusticeRoots. This chapter provides the foundational knowledge that informed the design and development of the platform, while also identifying gaps in current solutions that JusticeRoots aims to address.

### **2.1 Online Legal Systems**

Research on online legal systems highlights the growing trend of digitizing legal processes to improve accessibility and efficiency. Various platforms have been developed to provide legal advice, manage case documentation, and connect clients with lawyers. However, many existing solutions lack comprehensive features that integrate real-time communication, case tracking, and personalized recommendations. The courts of some jurisdictions are labouring under staggering backlogs - 100 million cases in Brazil, 30 million in India. More people in the world now have internet access than access to justice. [1]

### **2.2 Artificial Intelligence in Legal Systems**

AI technologies, such as natural language processing and recommendation systems, have shown promise in automating routine legal tasks. Studies have demonstrated how AI can assist in document analysis, legal research, and case prediction. JusticeRoots builds on these advancements by incorporating AI to recommend lawyers based on user preferences and case requirements.[2]

### **2.3 Social Media Integration in Professional Platforms**

The incorporation of social media-like features in professional platforms has been successful in enhancing user engagement and connectivity. Platforms such as LinkedIn

have demonstrated the effectiveness of interactive feeds and networking tools. JusticeRoots adopts a similar approach by providing a user-friendly interface that encourages interaction and collaboration among legal professionals and clients.[3]

## **2.4 Challenges in Legal Digitalization**

Despite the benefits of digital transformation, challenges such as data security, user privacy, and resistance to change remain significant barriers. Literature on these challenges emphasizes the need for robust security measures and user-centric designs to gain user trust and adoption. JusticeRoots addresses these concerns by implementing advanced security protocols and ensuring transparency in its operations.[4]

# Chapter 3

## Methodology

This chapter outlines the methodologies employed during the design, development, and implementation of JusticeRoots. It includes an overview of the planning process, selection of technologies, system architecture design, and implementation strategies to ensure the platform meets its objectives.

### 3.0.1 Tools, Methods and Programming Languages

The development of JusticeRoots required a deliberate selection of tools, methods, and programming languages to ensure the delivery of a robust and efficient platform. The project utilized a combination of modern technologies and best practices, aimed at creating a user-friendly, scalable, and secure system. Tools like Visual Studio Code were employed for development, with Git and GitHub providing version control and collaboration. Postman played a critical role in API testing. This comprehensive approach not only guaranteed technical excellence but also ensured that JusticeRoots aligned with user needs and preferences.

### 3.0.2 Client Side

- **Design** The client side of JusticeRoots was designed with a user-first approach to ensure accessibility, simplicity, and engagement. The focus was on delivering a responsive layout that works seamlessly across devices, ensuring inclusivity for all users.
- **Framework** The frontend was developed using React, a popular JavaScript library for building user interfaces. React's component-based architecture allowed the development team to create reusable UI elements, reducing development time and ensuring consistency. And for mobile application we used React Native.
- **Programming Languages** The primary programming language used on the client side was JavaScript, alongside HTML5 for structuring the content and CSS3 for styling. These technologies collectively enabled the creation of a dynamic

and visually appealing interface while ensuring compatibility with modern web browsers.

### 3.0.3 Server Side

- **Architecture** The server side of JusticeRoots followed the Model-View-Controller (MVC) architecture, providing a clear separation of concerns. This architecture improved code maintainability and facilitated the development of a scalable backend. The server was designed to handle API requests efficiently, ensuring seamless communication between the frontend and backend.
- **Framework** JusticeRoots adopted the MERN stack for its backend development, comprising MongoDB, Express.js, React, and Node.js. The use of Express.js enabled the creation of RESTful APIs to handle data flow between the server and client. Node.js provided a runtime environment for executing JavaScript on the server side, ensuring high performance and scalability for handling multiple concurrent requests.

### 3.0.4 Database

The database design was central to ensuring the efficient storage and retrieval of data, which is crucial for the functionality of JusticeRoots. MongoDB, a NoSQL database, was chosen for its flexibility and scalability. The schema design was structured to support various collections, such as users, cases, messages, and notifications, each tailored to the unique requirements of the platform. Relationships between entities were carefully managed to allow for efficient queries and updates. Indexing strategies were employed to optimize query performance, and data validation mechanisms were implemented to ensure data integrity.

## 3.1 System Features and Implementation

### 3.1.1 Login and Signup

**Login:** The login page, you can log in as a client, lawyer, judge or Admin.

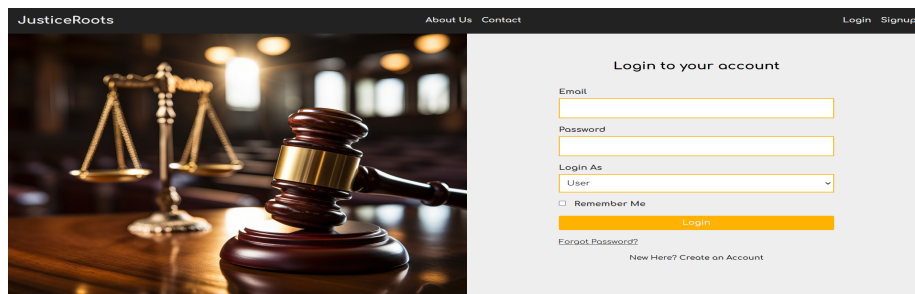


Figure 3.1: Login

**Signup:** You can sign up as a lawyer, or as a client. signing up as a lawyer requires additional information which are: CV, practice certificate, Consultation price, and a description.

Step 1

Id	409553122	CV (PDF)	Choose File   Mohammad Bdair's Resume.pdf
First Name	Mohamamd	Practicing Certificate (PDF)	Choose File   25c4e8588eb85540ac05c94de613e12e (1).pdf
Last Name	Bdair	Consultation price	15
Birthday	12/03/2002	Description	A good lawyer
Gender	Male	Years of Experience	5
User Type	Lawyer		

Next

Figure 3.2: Sign up step 1

Step 2

Phone Number	0511111111
City	Tulkarm
Street	Palestine

Next

Back

Figure 3.3: Sign up step 2

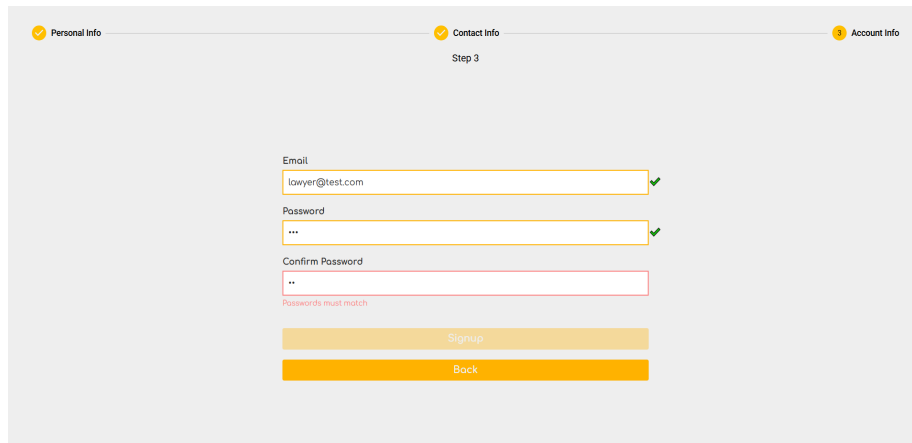


Figure 3.4: Sign up step 3

When logged in as a user, the user is redirected to his dashboard, containing: Main feed(the community), User cases, Hire a lawyer, Pay a lawyer, join a court, chats and profile settings.

### 3.1.2 User Dashboard

#### Main Feed

: This is the global community, that all users with valid accounts have access to, you can add a new post, like and comment a post, and like a comment. The purpose of this community is to post updates, news and announcements, although it is not a vital aspect of this project, but it could become in handy.

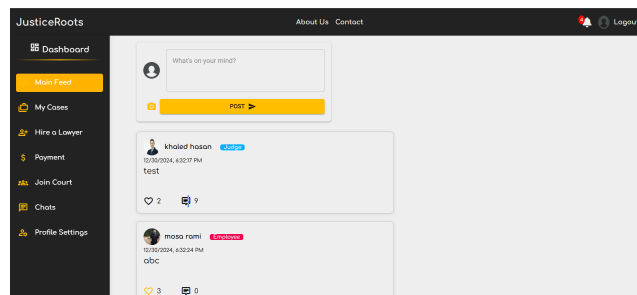


Figure 3.5: Main Feed

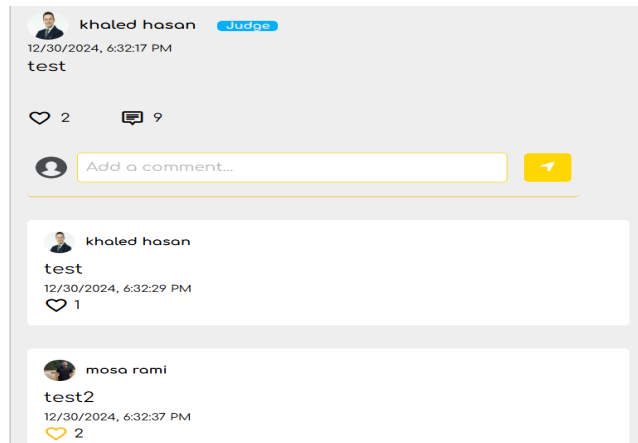


Figure 3.6: Main Feed Post

### Client Cases

A client can have plaintiff cases and defendant cases, the client can view all of his cases, in a briefly detailed card, and he can click on Show more info to view full details of a case:

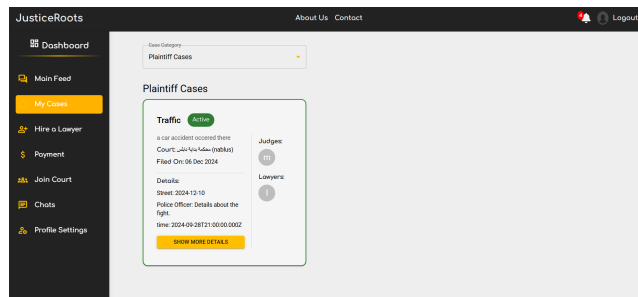


Figure 3.7: Client Cases

### Case Details Page

in this page, the use can view fill details of a specific case, including its tasks, notes, documents, courts, etc..

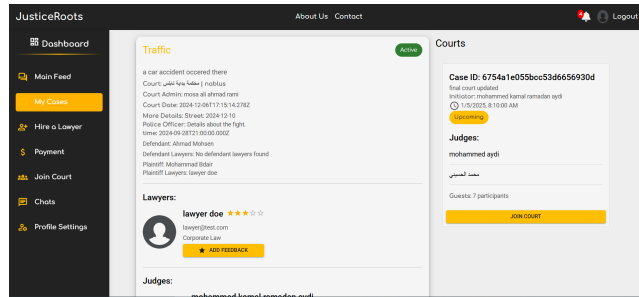


Figure 3.8: Case Details Page

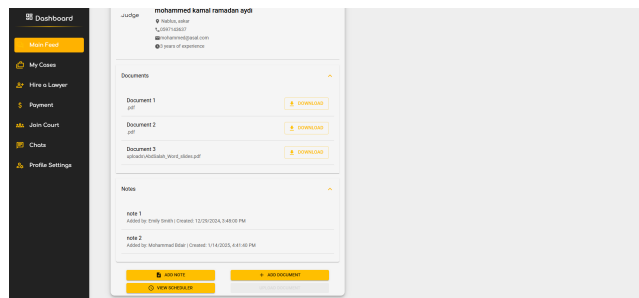


Figure 3.9: Case Details Page con.

For the courts, if the court is upcoming, then the client can click on Join court and be redirected to Join Court page.

The client can give a feedback on his lawyers on a case, this feedback affects the lawyer's assessment.

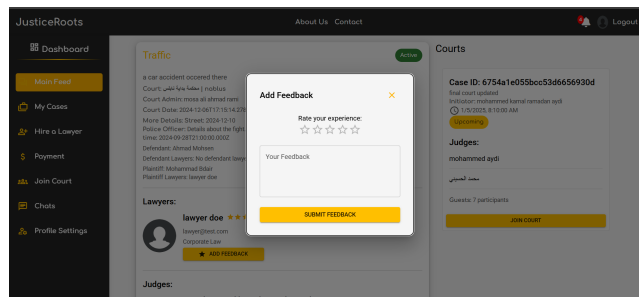


Figure 3.10: Add a feedback on a lawyer

The client can also add a note or a document on the case as well:

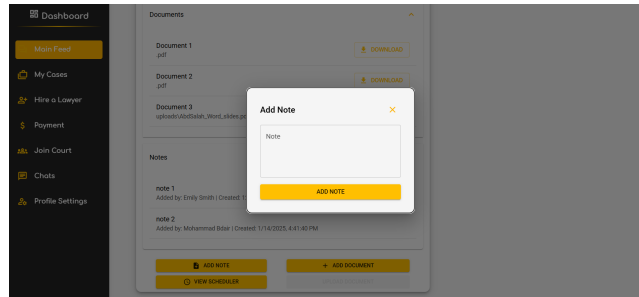


Figure 3.11: Add a note on a case

**Case tasks:** Clicking on View Scheduler redirects the client to the case’s tasks page:

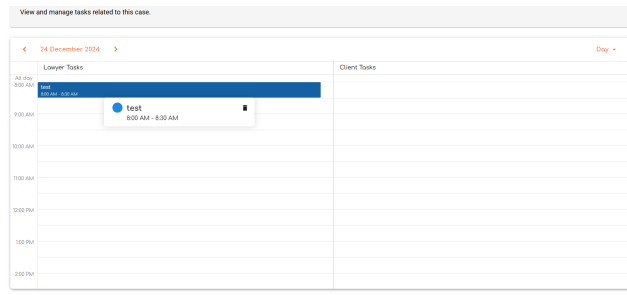


Figure 3.12: Tasks page

A client can add a task for his case, or edit an existing task, which will be shown to him and his lawyers who are assigned to this case:

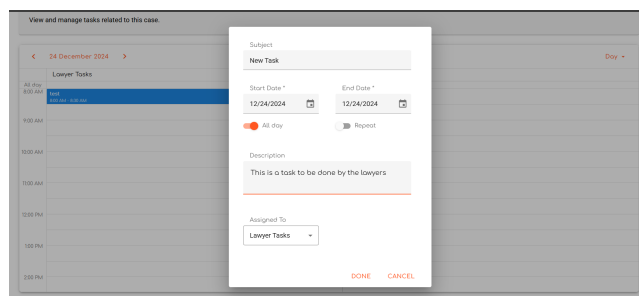


Figure 3.13: Add a task

### Hire A Lawyer

In this page, you can hire a lawyer to your cases, you get to search by lawyers specializations, view lawyer’s details before hiring him. and assign a lawyer. After hiring a

lawyer, a request will be sent to the lawyer and he can accept or deny your request. We also display recommended lawyers by their assessment and by the number of their won cases.

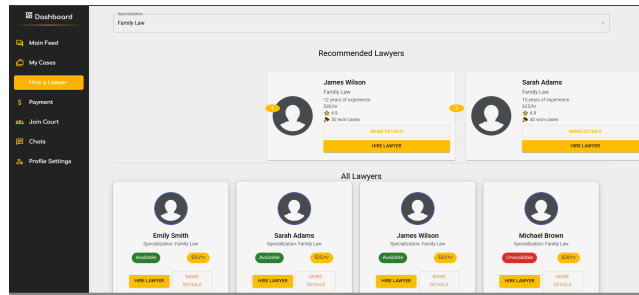


Figure 3.14: Hire Lawyer

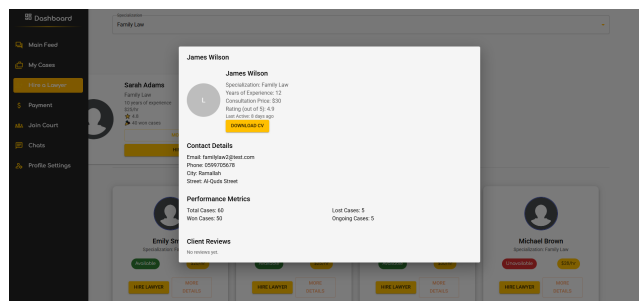


Figure 3.15: Lawyer Details

You can select on which case you want to hire the lawyer at:

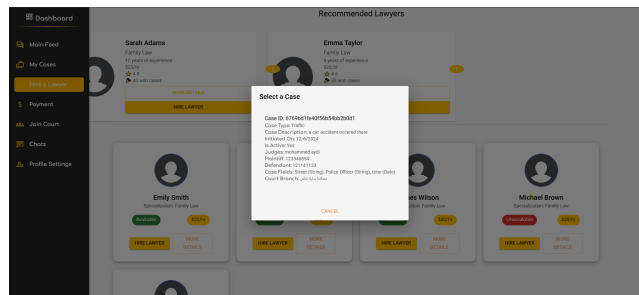


Figure 3.16: Select A case To hire a lawyer to

After hiring the lawyer, if the user already have a pending request with this lawyer for this case, it will indicate an error:

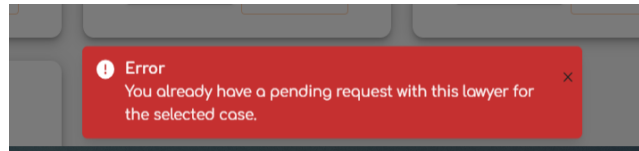


Figure 3.17: Already Pending Request

And if the lawyer is assigned the client will receive an indicator:

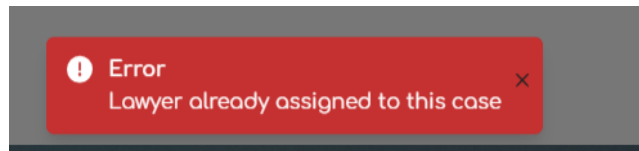


Figure 3.18: Already Assigned

Otherwise, a request will be sent, and a notification will be sent to the lawyer.

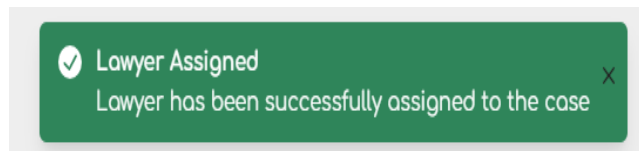


Figure 3.19: Hiring Request Sent

### Pay a Lawyer

In this page, a client can choose a lawyer that is assigned to one of his cases, and pay him.

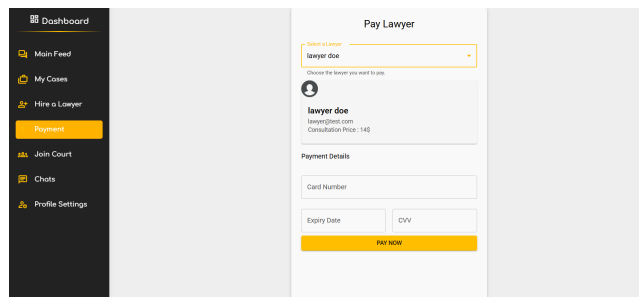


Figure 3.20: Pay a Lawyer

## Join A Court

In this page, the client can enter the court's meeting Id and join the online court:

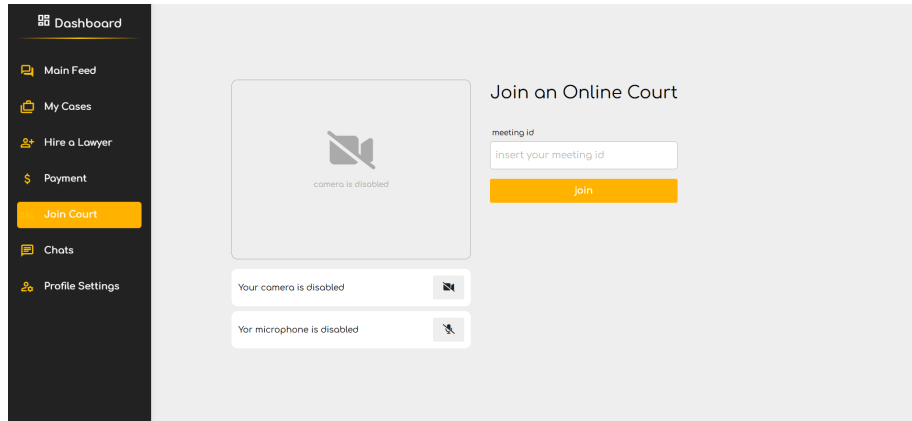


Figure 3.21: Join a court

## Chats Page

In this page you can select a lawyer or a user to contact with, you can search and filter them.

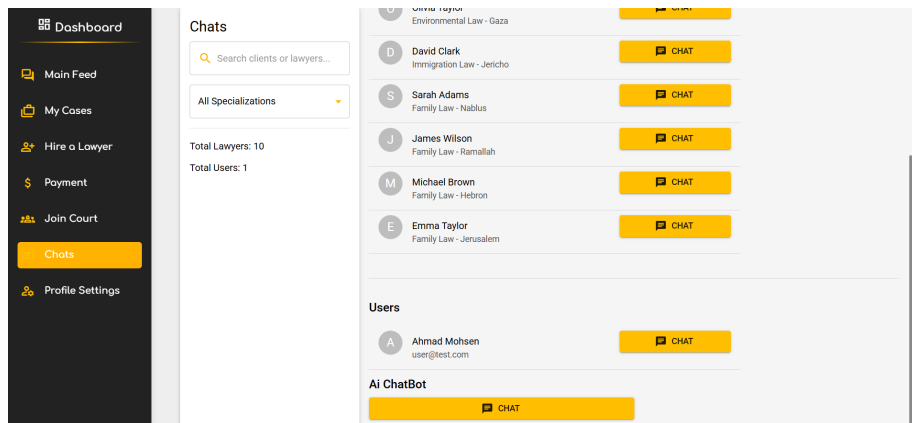


Figure 3.22: Chats Page

**Real time Chatting:** After entering a chat, the user enters a real time chatting system, with all the messages with their dates and sender, including a "Writing now.." indicator.

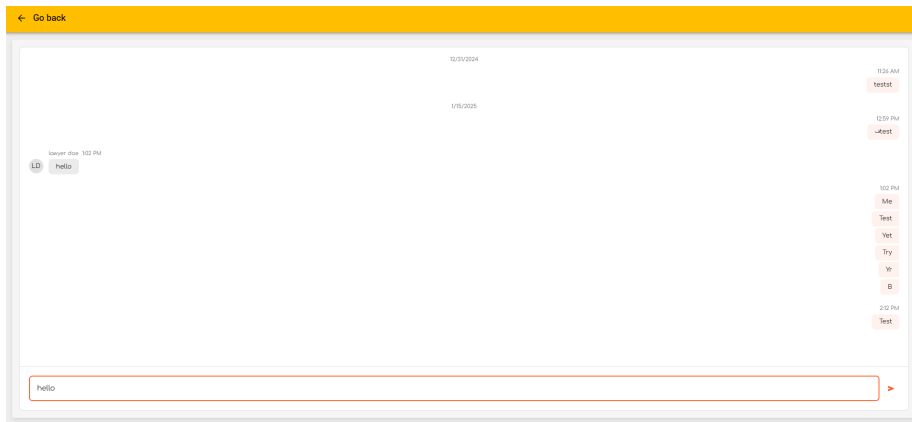


Figure 3.23: Real time chatting

**Chatbot:** This is a chatbot that you can send messages to:

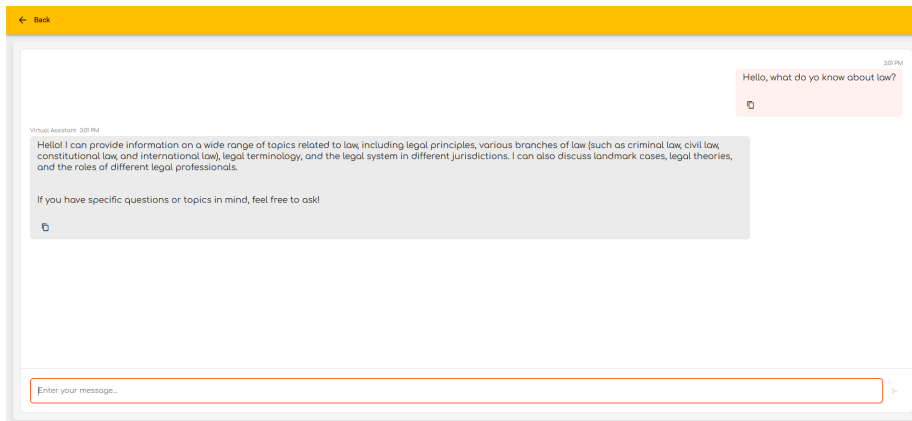


Figure 3.24: Chat Bot

### Profile Settings

In this page, the client can view his data and update them:

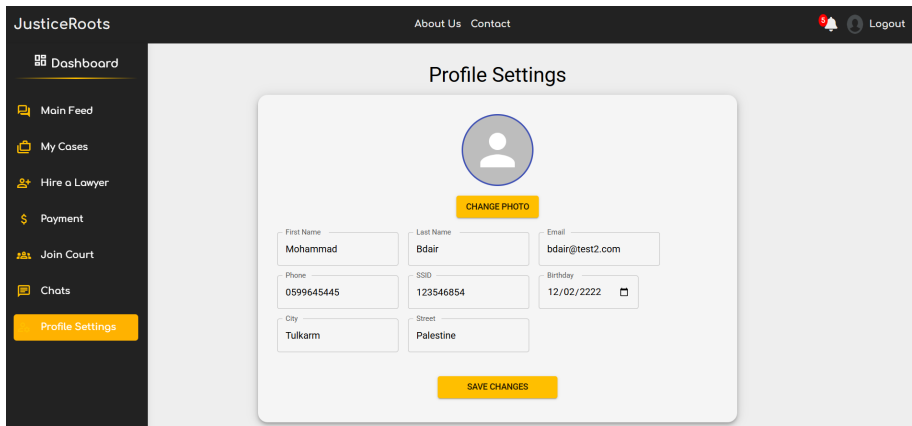


Figure 3.25: Profile Settings

### Notifications

A user receives notifications for any action that is related to him, a notification is colored in gold if it is not read.

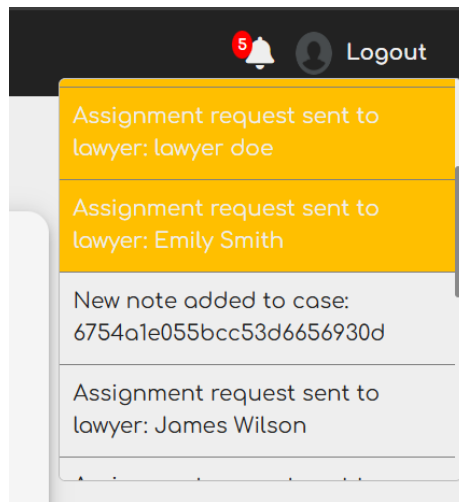


Figure 3.26: Notifications

### 3.1.3 Lawyer Dashboard

When a user logs in as a lawyer, he will be redirected to Lawyer's dashboard, which includes, Main Feed, Pending Requests, Lawyer Cases, Join a Court, Chats page, Profile settings.

## Main Feed

This is the global community, same as in client's main feed.

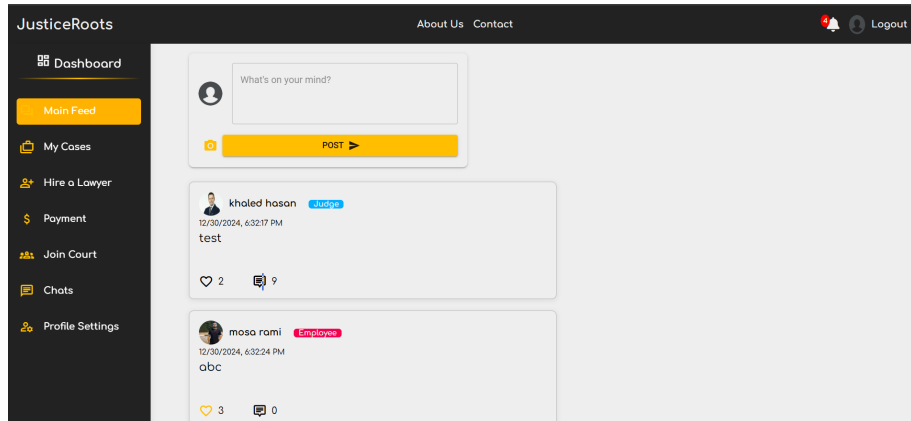


Figure 3.27: Main Feed

## Pending Cases

In this page, the lawyer can see the pending requests from clients, to take over a case and be assigned to it. he can accept or deny it.

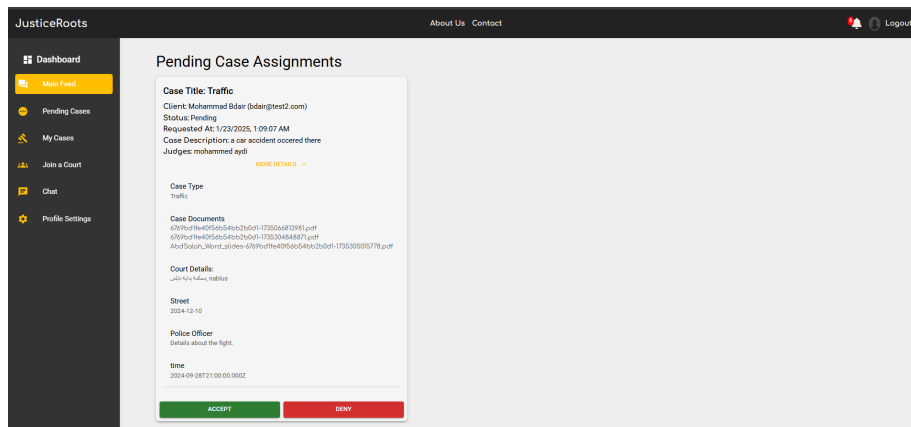


Figure 3.28: Pending Cases

## Lawyer Cases

Similar to client cases, the lawyer can see his plaintiff and defendadnt cases.

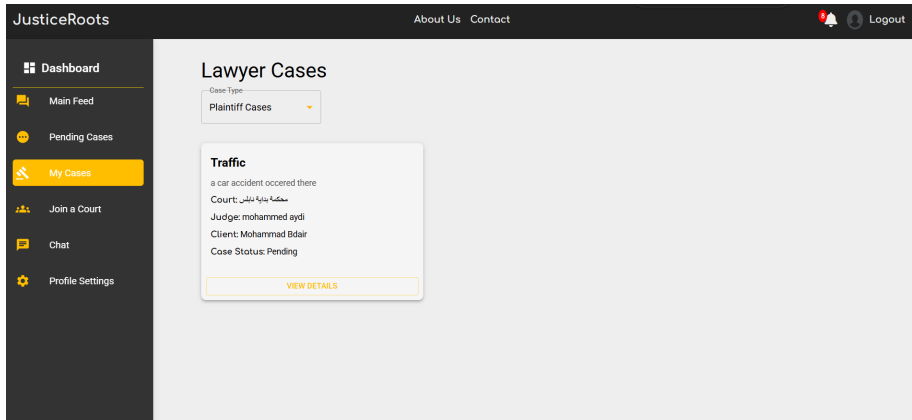


Figure 3.29: Lawyer Cases

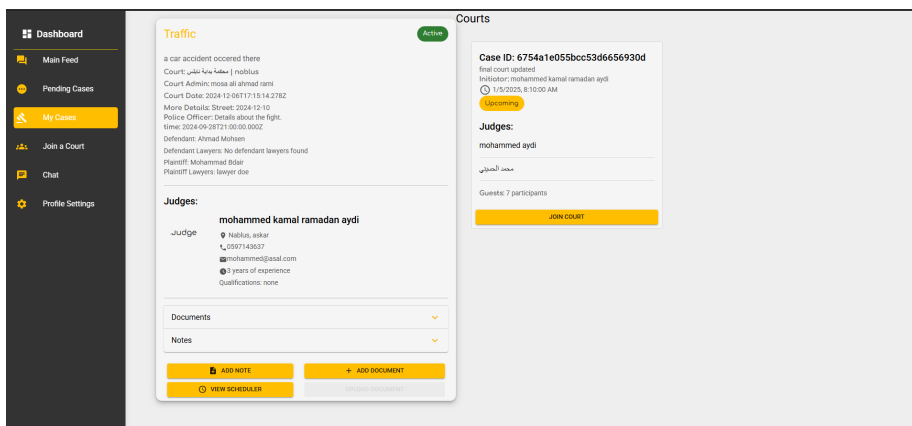


Figure 3.30: Lawyer Case Details

### Join A Court

Same as the client's page, the lawyer can join a court from this page.

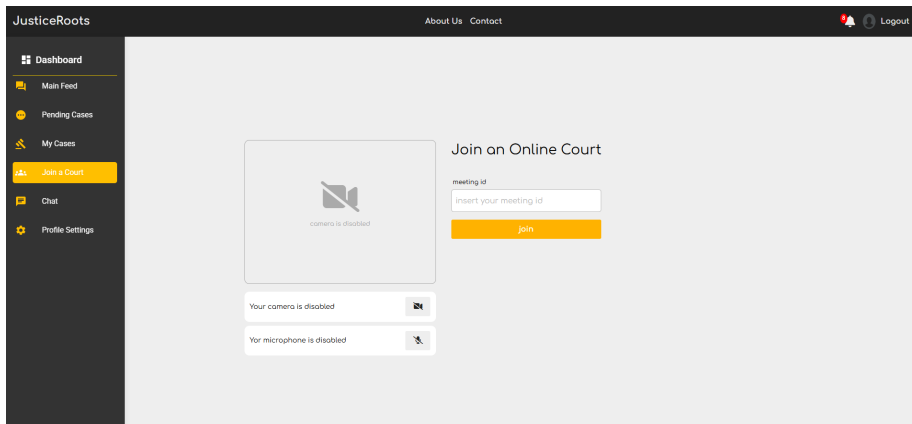


Figure 3.31: Join A Court

## Chats Page

Similar to the client's page

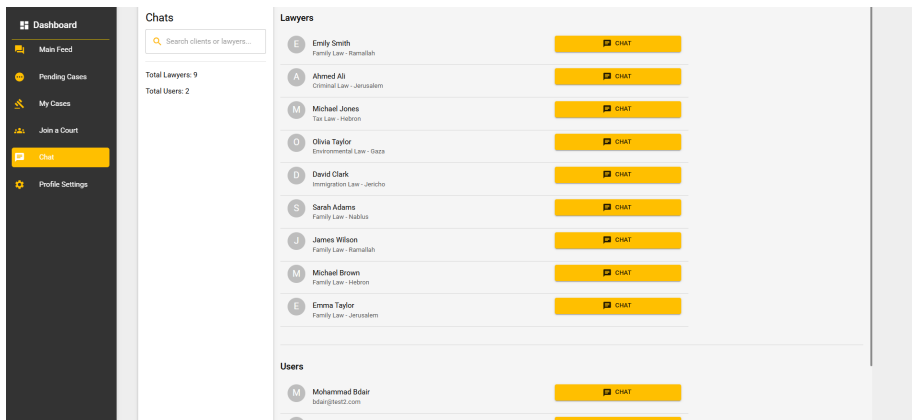


Figure 3.32: Chats Page

## Profile Page

A lawyer can view, edit his personal data.

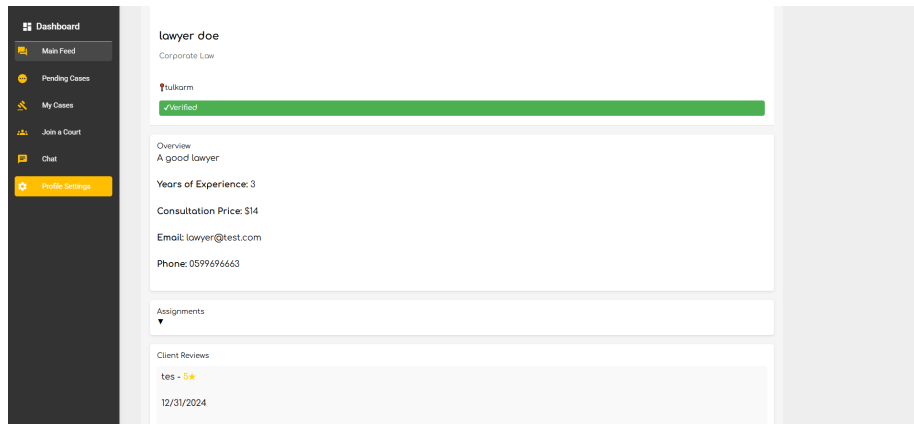


Figure 3.33: Lawyer Profile Settings

### 3.1.4 Employees Dashboard

A dynamic dashboard was developed for employees and judges, designed to streamline the management of cases and courts. The dashboard's content is tailored based on the user's job title and assigned permissions, ensuring a personalized and efficient experience for each role.

When an employee or judge login they will be directed to this page

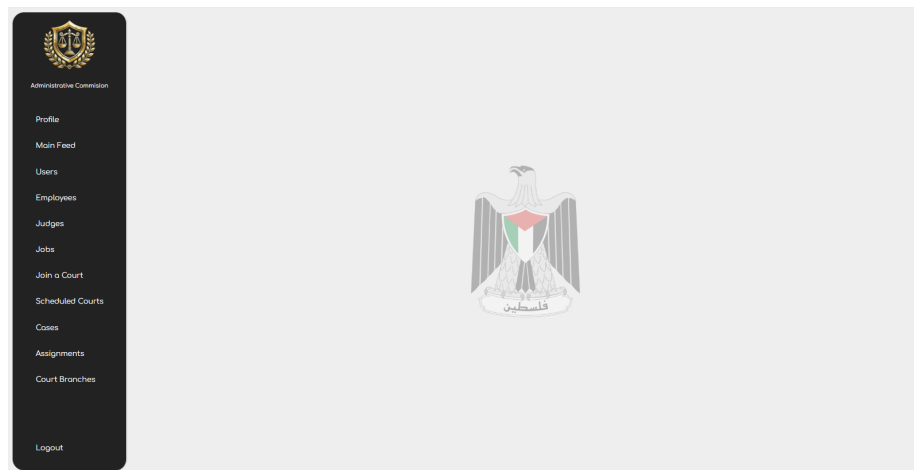


Figure 3.34: Main page

## Profile

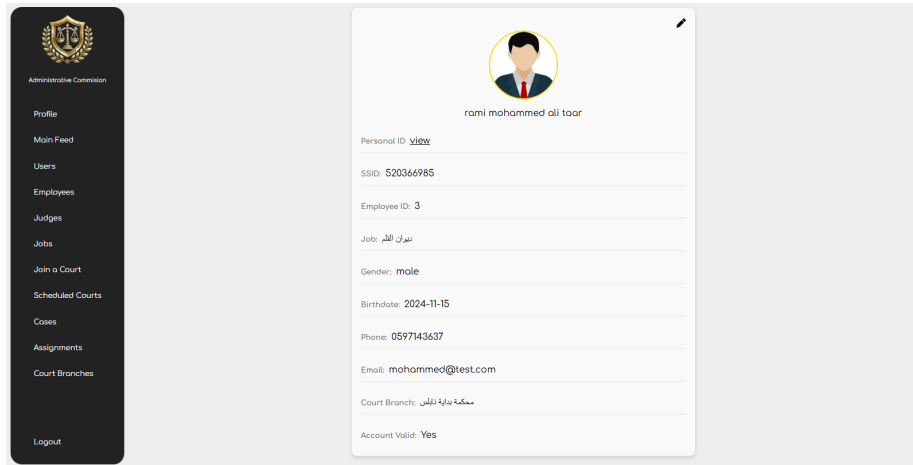


Figure 3.35: Admin Profile page

## Main Feed

the same feed which was explained in the users' page

## Users and Lawyers

in this page the employee can view the users and lawyers who have account on the website, and verify the lawyers accounts.

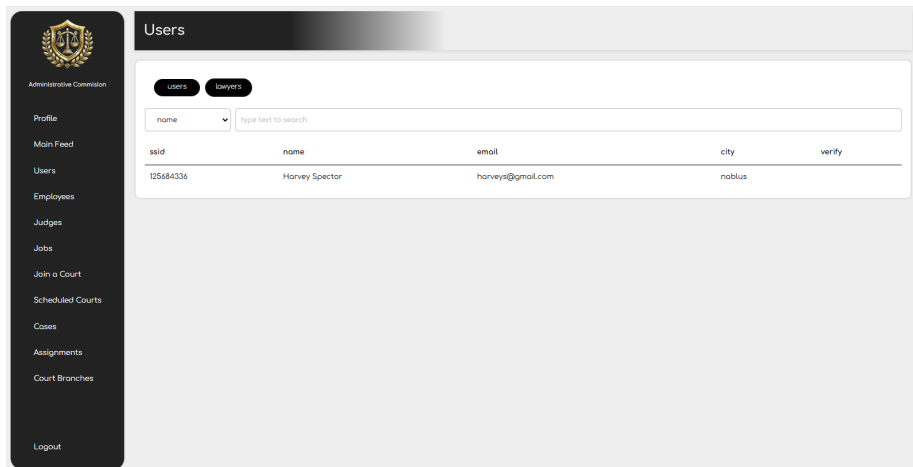
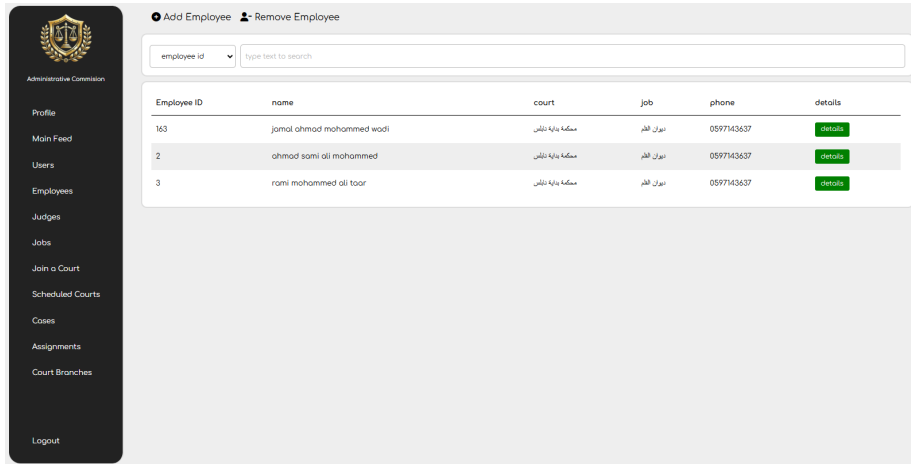


Figure 3.36: Users and Lawyers table

## Employees

in this page the employee can view the employees in their courts, or all employees if the account is general.



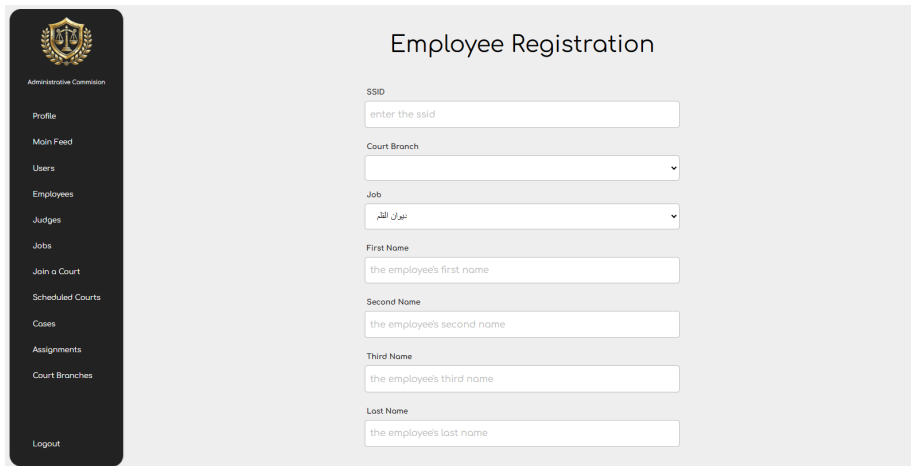
● Add Employee    ✖ Remove Employee

employee id    type text to search

Employee ID	name	court	job	phone	details
163	jamal ahmad mohammed wadi	مستكمة بداية النفل	ديون القدر	0597143637	details
2	ahmad sami ali mohammed	مستكمة بداية النفل	ديون القدر	0597143637	details
3	rami mohammed ali toar	مستكمة بداية النفل	ديون القدر	0597143637	details

Figure 3.37: Employees table

through this page, the employees who have access can create accounts for new employees.



### Employee Registration

SSID  
enter the ssid

Court Branch  
▼

Job  
ديون القدر ▼

First Name  
the employee's first name

Second Name  
the employee's second name

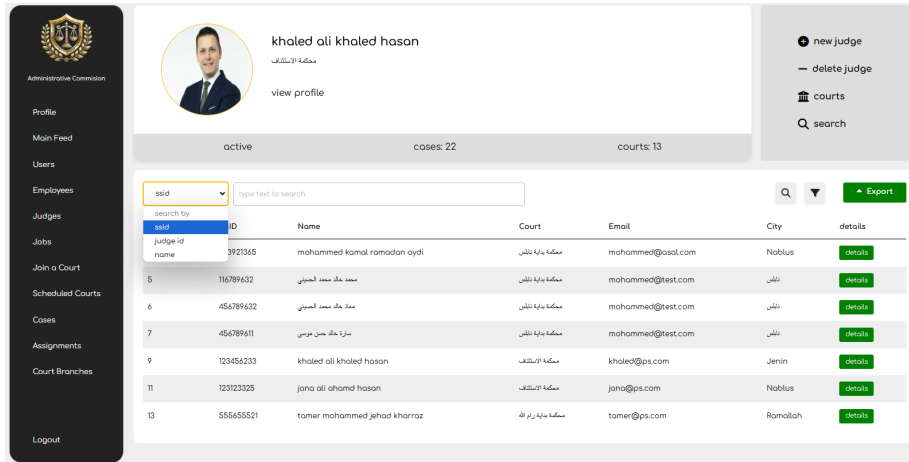
Third Name  
the employee's third name

Last Name  
the employee's last name

Figure 3.38: Employees Form

## Judges

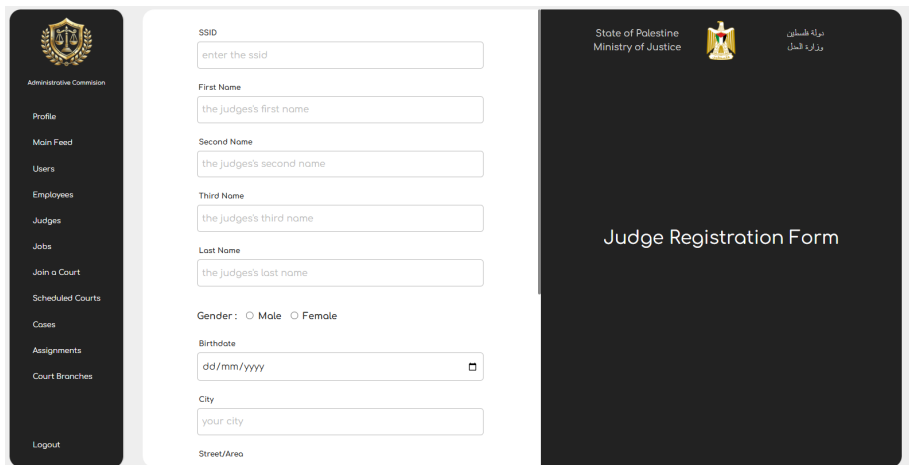
through this page, the employee can view judges and their data, and add or delete new judges.



ID	Name	Court	Email	City	details
3921345	mohammed kamal ramadan aydi	مكة دائرة نبلوس	mohammed@ssal.com	Nabulus	details
5	محمد خالد محمد الحسيني	مكة دائرة نبلوس	mohammed@test.com	نبلوس	details
6	محمد خالد محمد الحسيني	مكة دائرة نبلوس	mohammed@test.com	نبلوس	details
7	سوزا خالد حسن موسى	مكة دائرة نبلوس	mohammed@test.com	نبلوس	details
9	khaled ali khaled hasan	مكة دائرة نبلوس	khaled@ps.com	Jenin	details
11	jana ali ahmad hasan	مكة دائرة نبلوس	jana@ps.com	Nabulus	details
13	tamer mohammed jehad kharraz	مكة دائرة نبلوس	tamer@ps.com	Ramallah	details

Figure 3.39: Judges page

## Judges Registration from



State of Palestine  
Ministry of Justice

دولة فلسطين  
وزارة العدل

Judge Registration Form

SSID  
enter the ssid

First Name  
the judge's first name

Second Name  
the judge's second name

Third Name  
the judge's third name

Last Name  
the judge's last name

Gender :  Male  Female

Birthdate  
dd/mm/yyyy

City  
your city

Street/Area

Figure 3.40: Judges Form

## Jobs

through this page, the employee can view current jobs and their permissions, update a job's permissions and create new jobs.

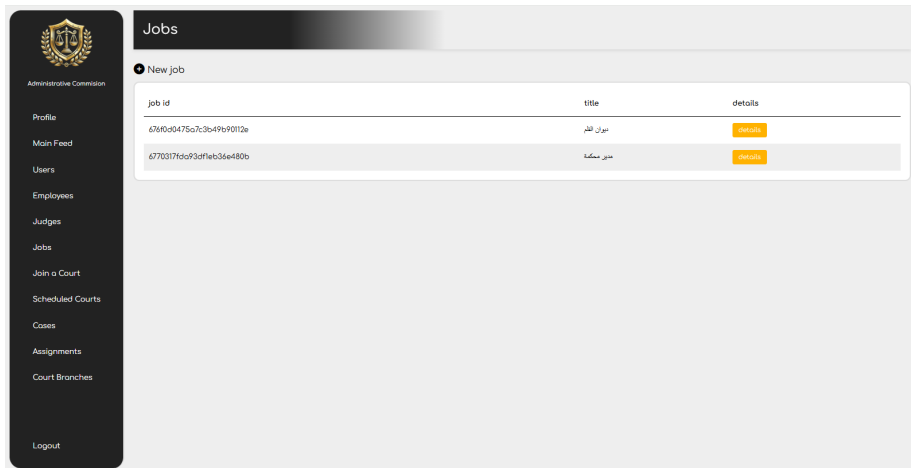


Figure 3.41: Jobs page

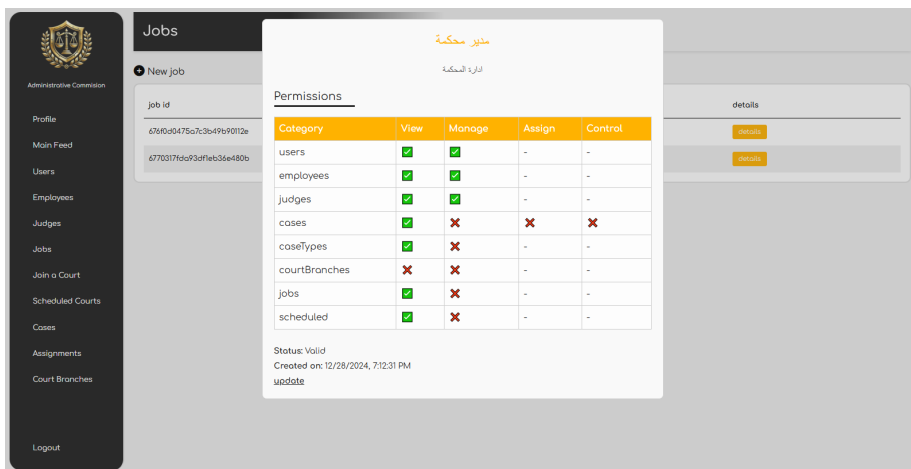


Figure 3.42: Jobs data

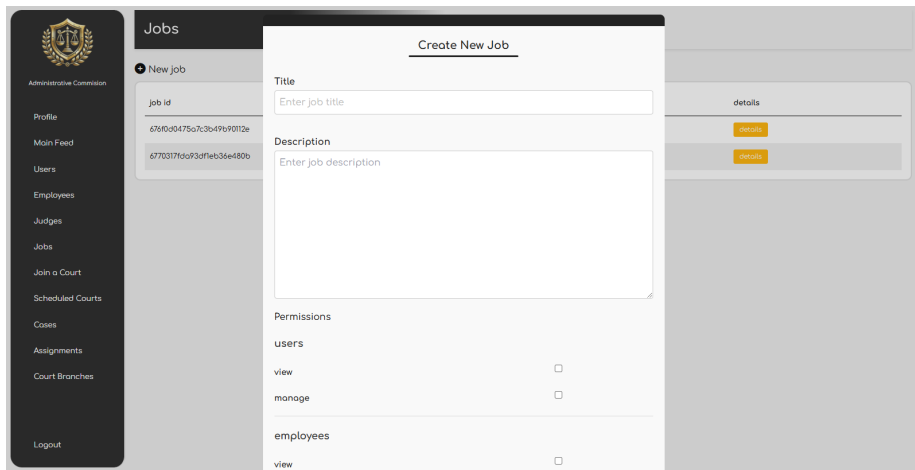


Figure 3.43: Jobs Form

### Join Court

through this page, the employee can see his scheduled courts and join them.

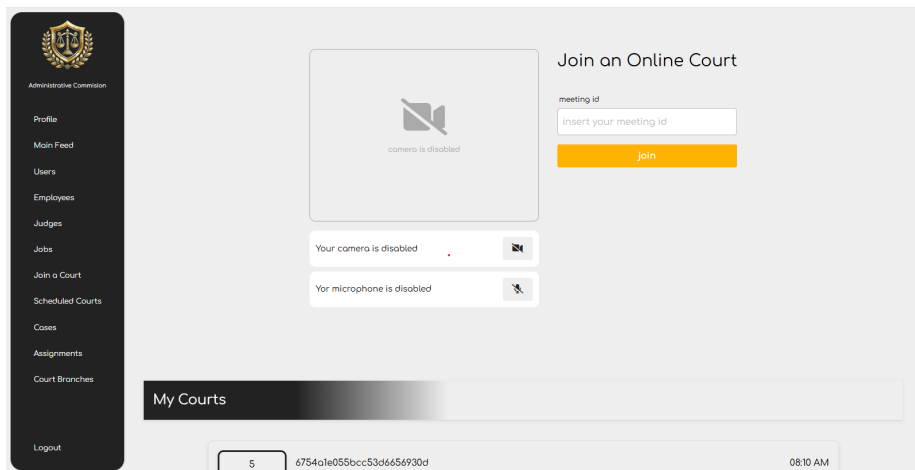


Figure 3.44: Join court page

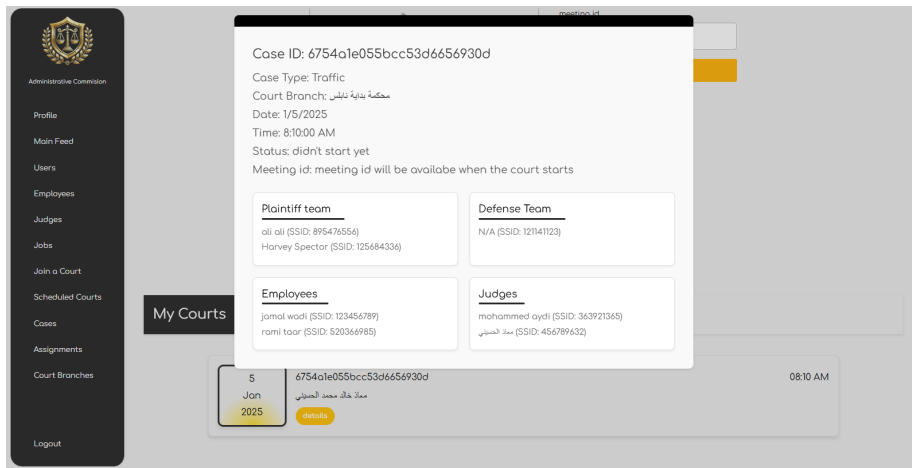


Figure 3.45: My Courts

### Assigned Cases

in this page admins, can view all the assigned cases and the employee in charge of it.

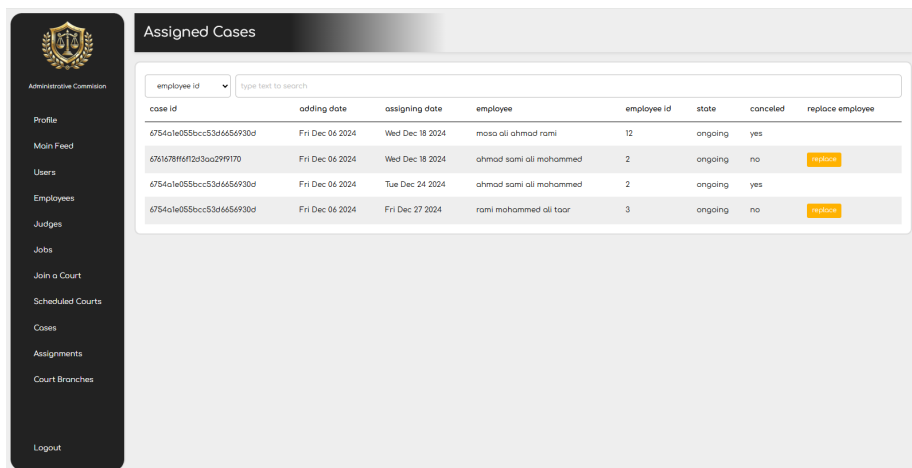


Figure 3.46: Assignments page

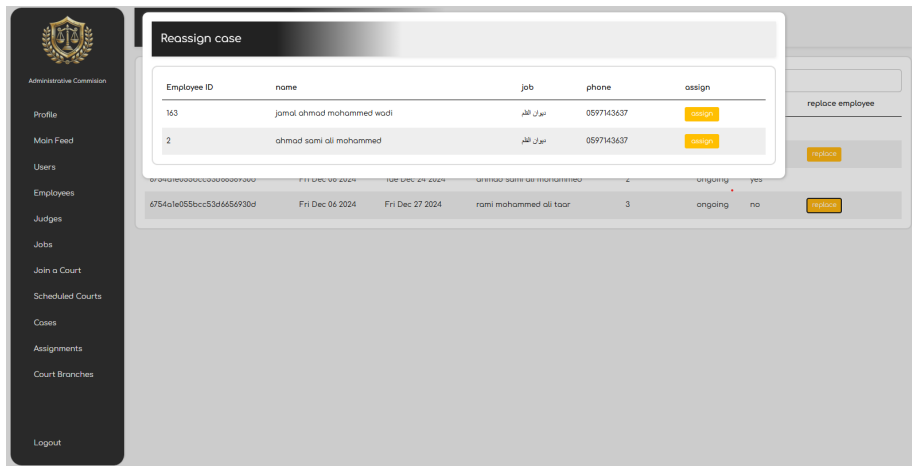


Figure 3.47: Replace Employee

### Court Branches

in this page admins can check the available courts, add new courts, or delete them.

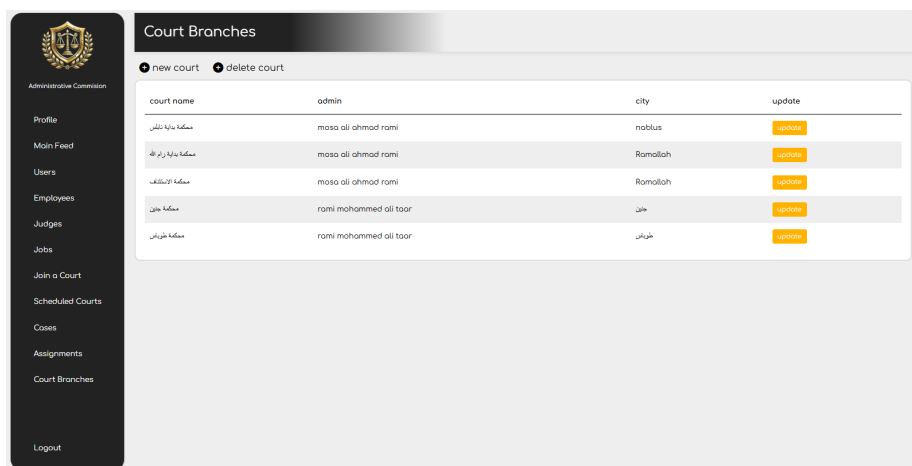


Figure 3.48: Court Branches

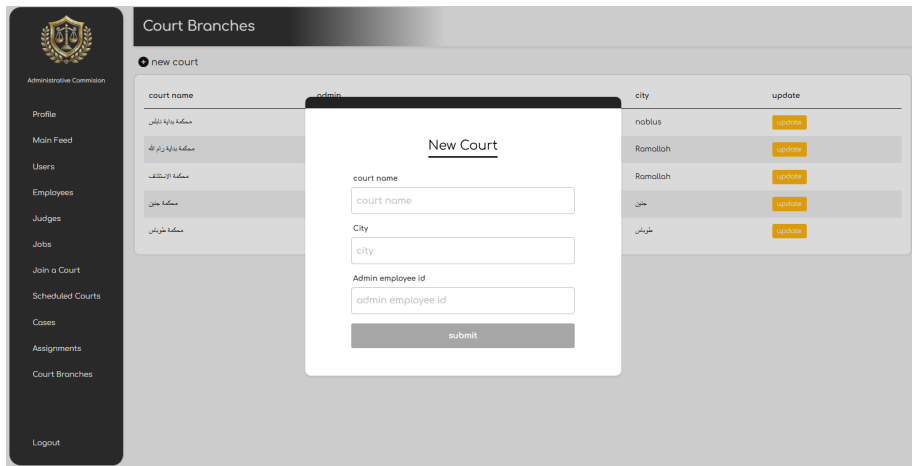


Figure 3.49: Court Branches Form

## Cases

this page contains all the cases, the employee can only see the cases related to their courts, or all cases if the account is general, it includes charts at the top and advanced filtering options, and the ability to export the cases.

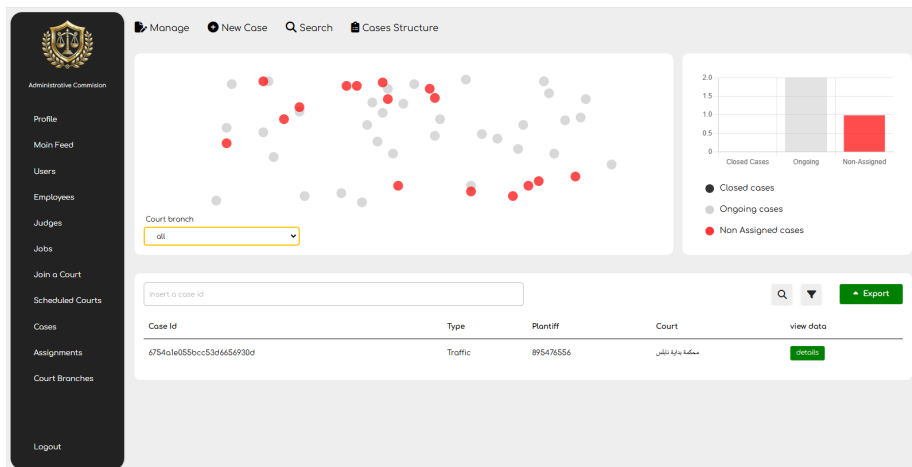


Figure 3.50: Cases Page

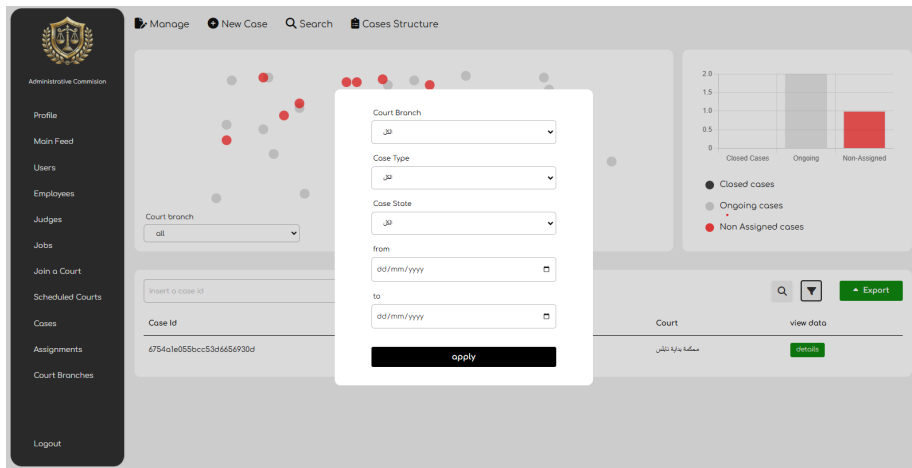


Figure 3.51: Cases Filter

by choosing a case the employee can view the case's state and assign it to a certain employee.

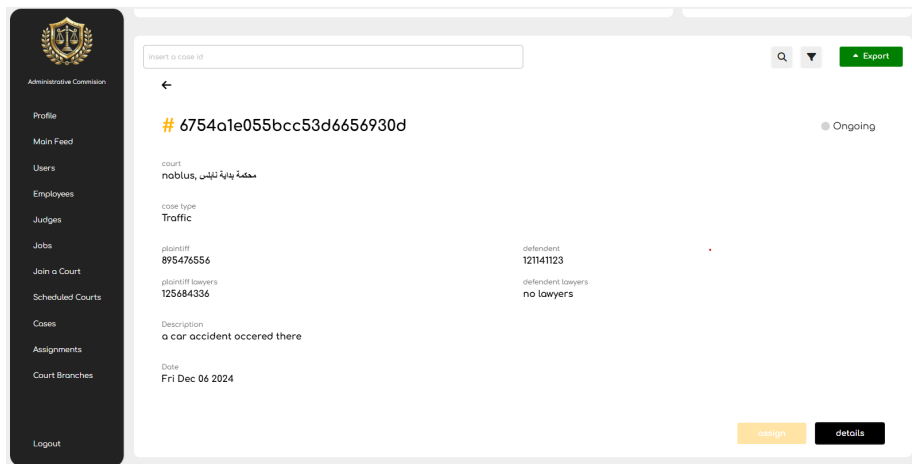


Figure 3.52: Case Details

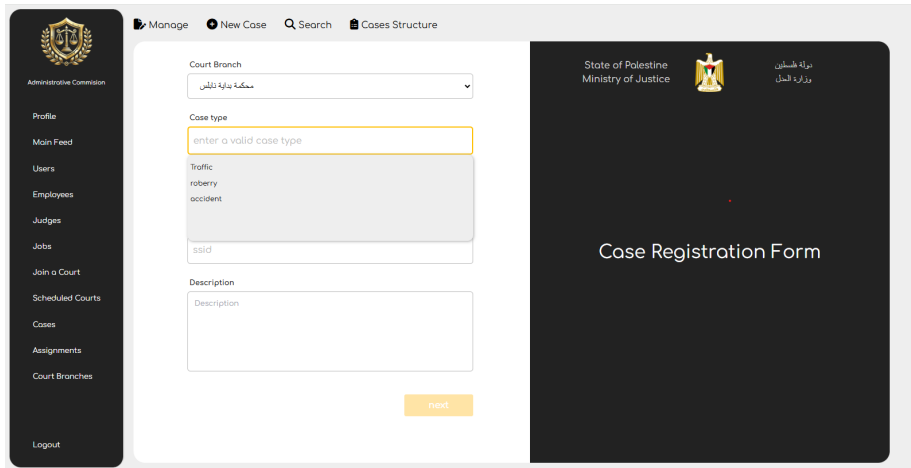


Figure 3.53: Case Form

### Case Types

this page contains all case types, which are predefined templates for cases.

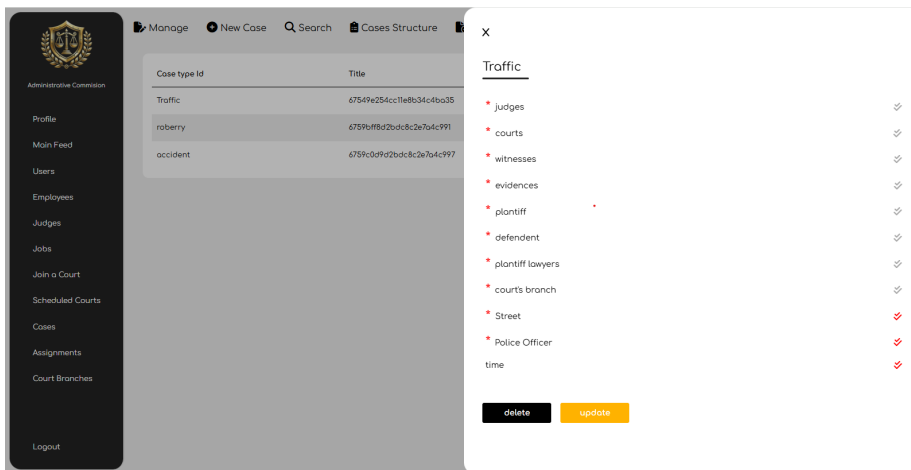


Figure 3.54: Case Types

Figure 3.55: Case Types Form

## My Cases

page containing all the cases assigned to the employee.

Figure 3.56: My Cases

This page contains all the data related to a case, and enables the in charge employee to manage the case easily.

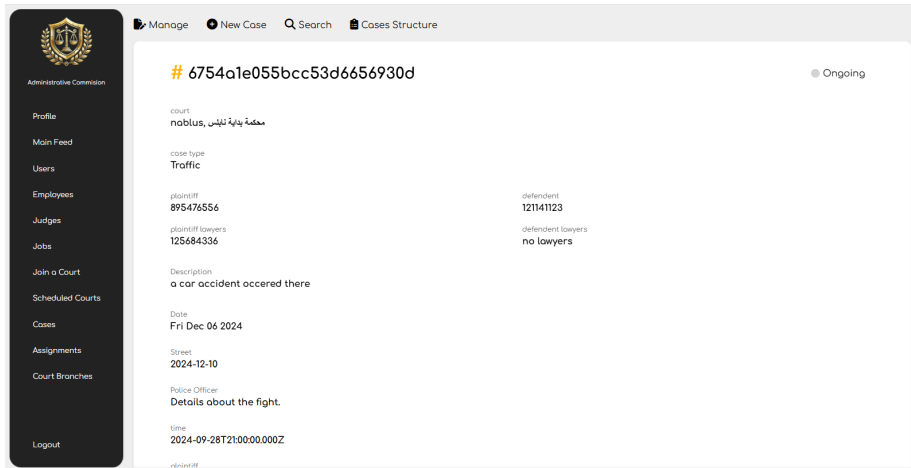


Figure 3.57: Case Profile

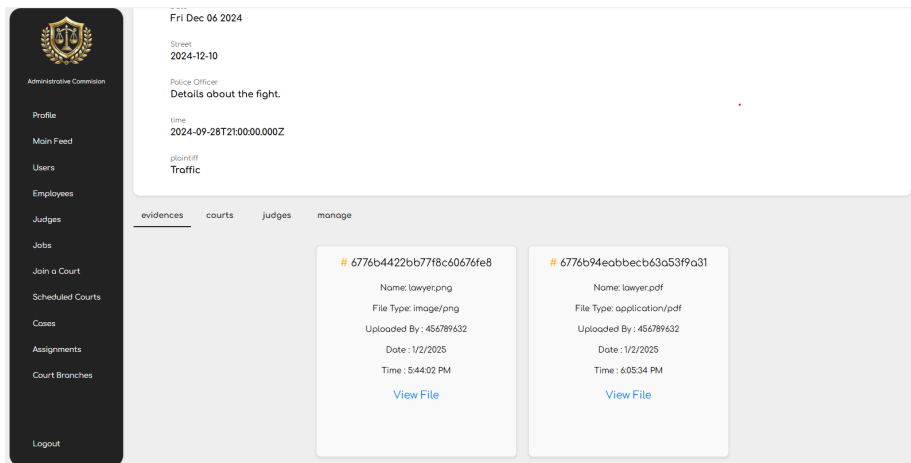


Figure 3.58: Case Profile Evidences

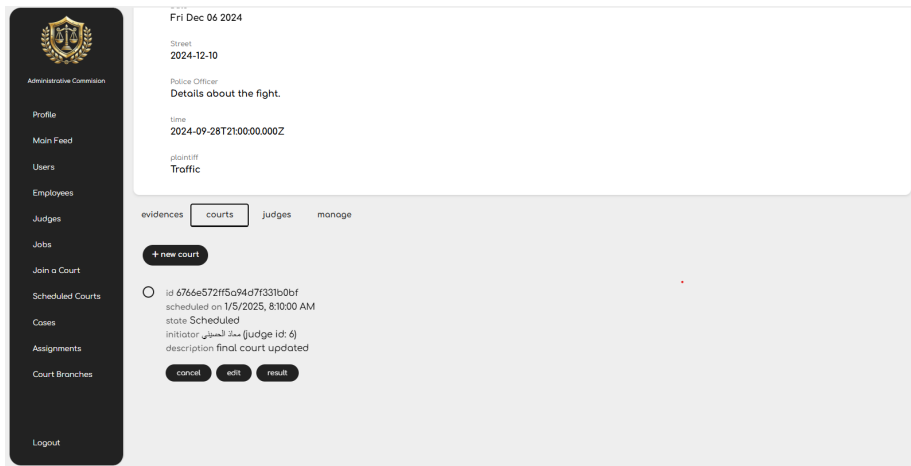


Figure 3.59: Case Profile Courts

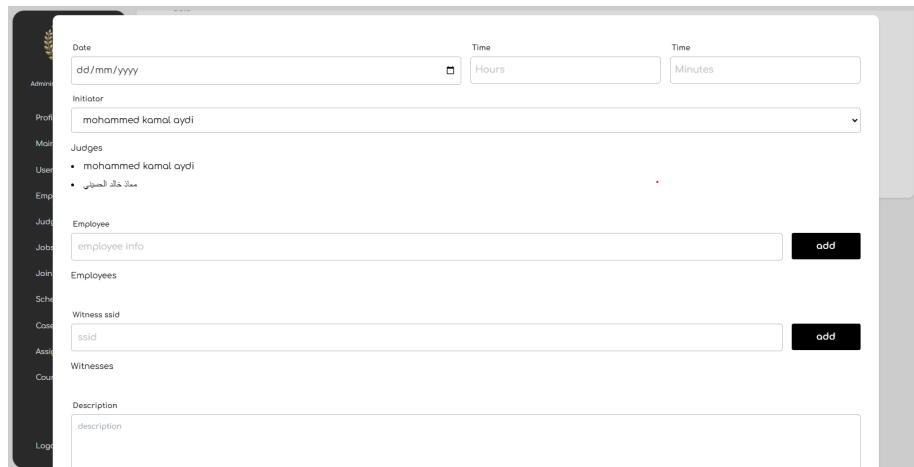


Figure 3.60: Case Profile Court Form

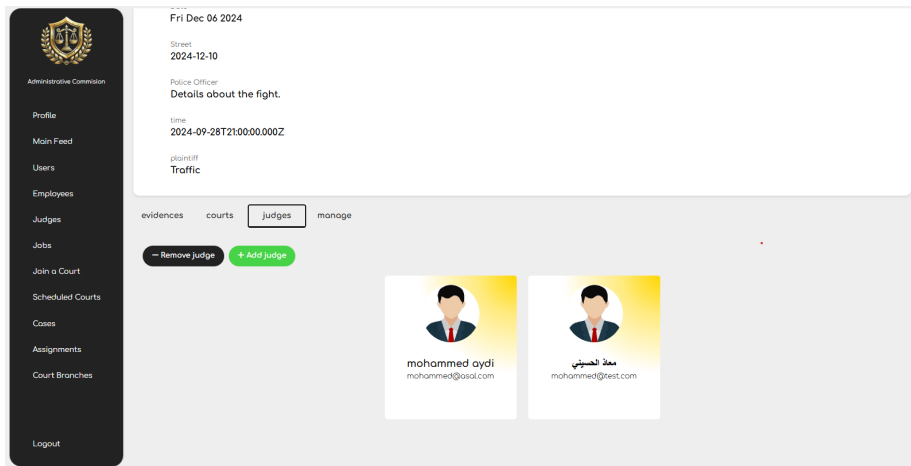


Figure 3.61: Case Profile Judges

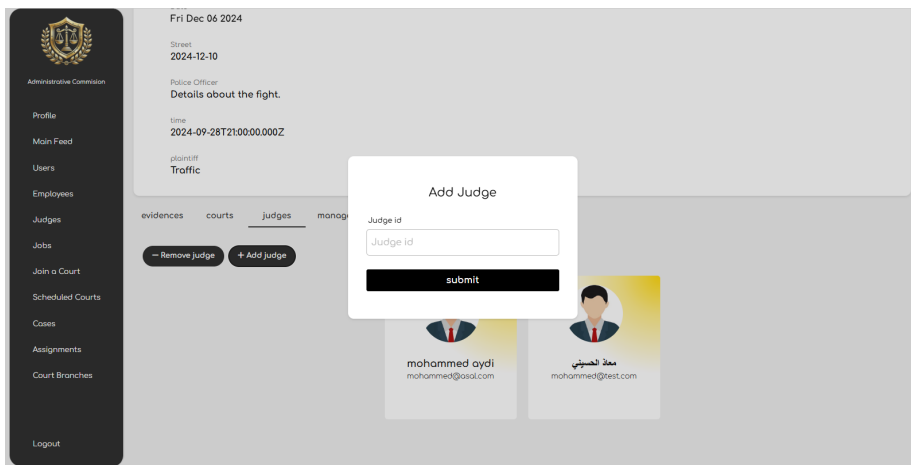


Figure 3.62: Add judge to a case

### 3.1.5 Judge Dashboard

it is the same dashboard as the employee's with a little different things. here is the dashboard of the judge

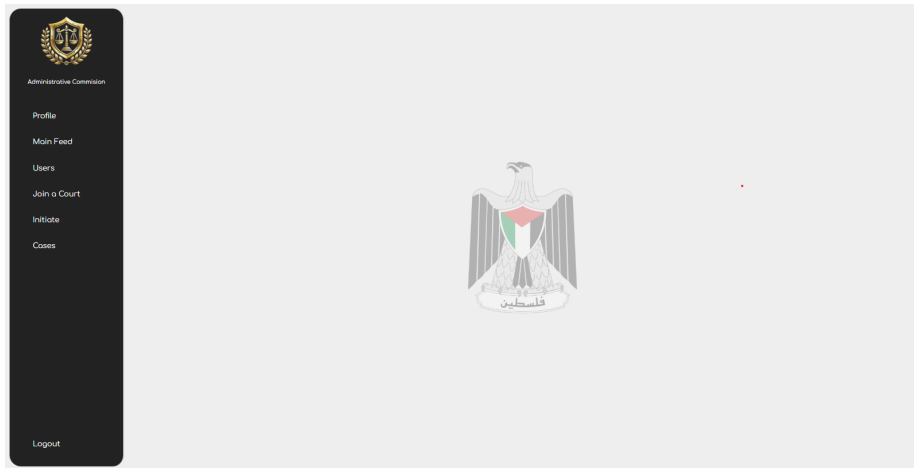


Figure 3.63: Judge Dashboard

from this page the judge can initiate the court.

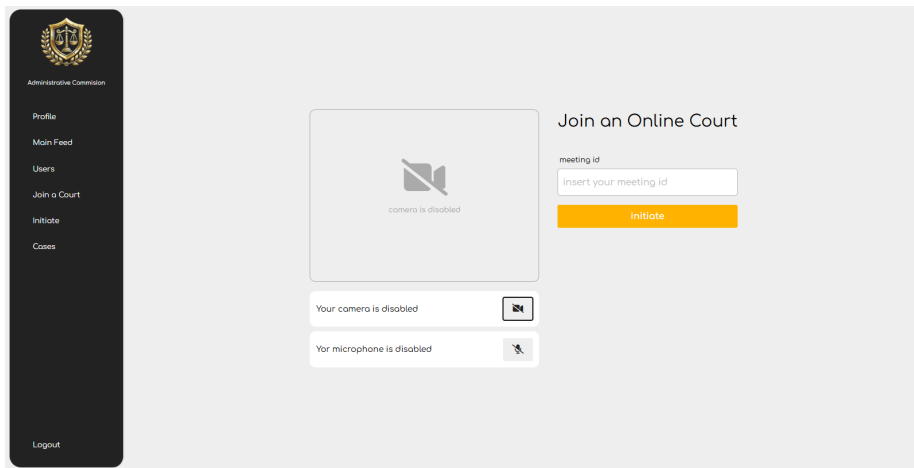


Figure 3.64: Judge Dashboard

### 3.1.6 Online Court

This is the interface of the online court, which all types of users can join.

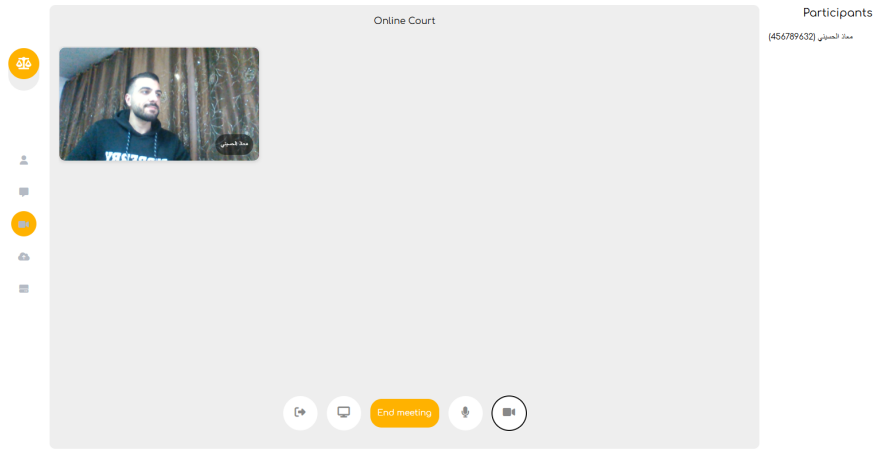


Figure 3.65: Online Court

Here the user who has permission can view the evidences related to the case.

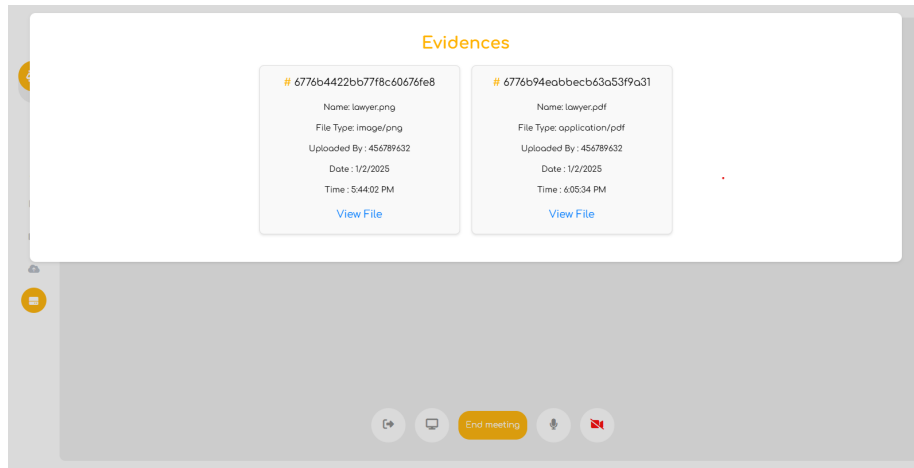


Figure 3.66: Online Court Evidences

From this from the user who has permission can update an evidence

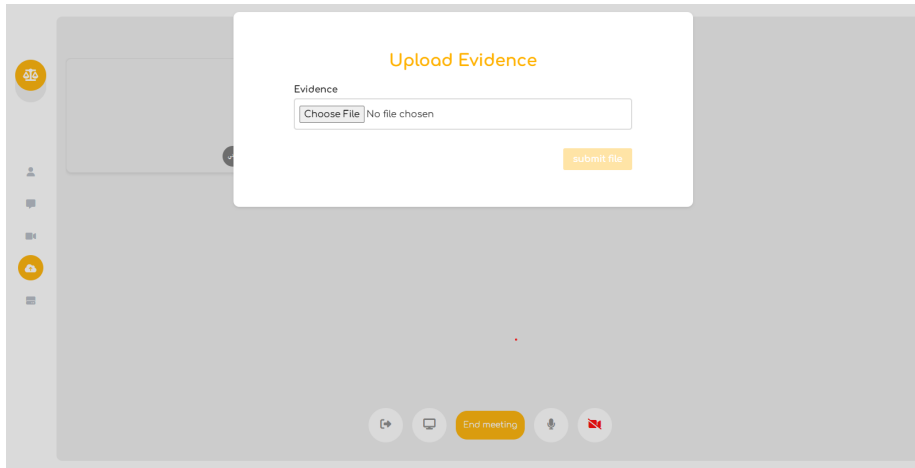


Figure 3.67: Online Court File Upload

the user who has permission can share their screen.

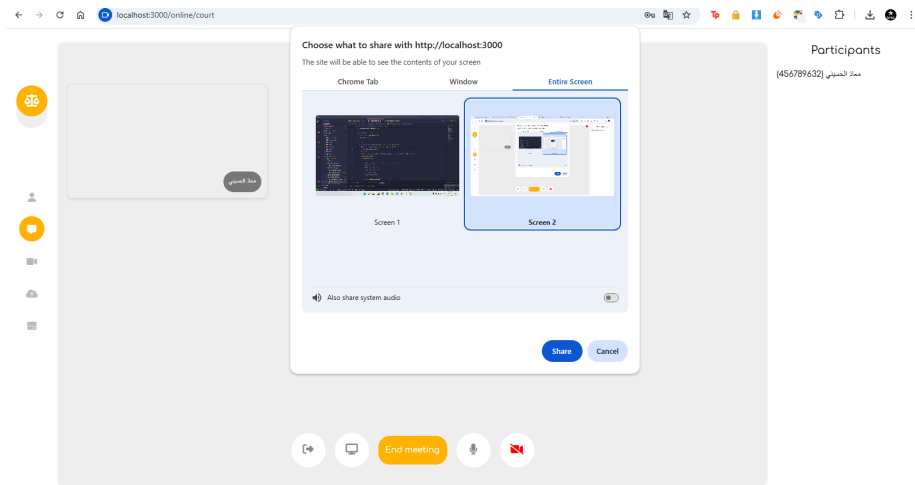


Figure 3.68: Online Court File Upload

and other users can watch the stream as shown here

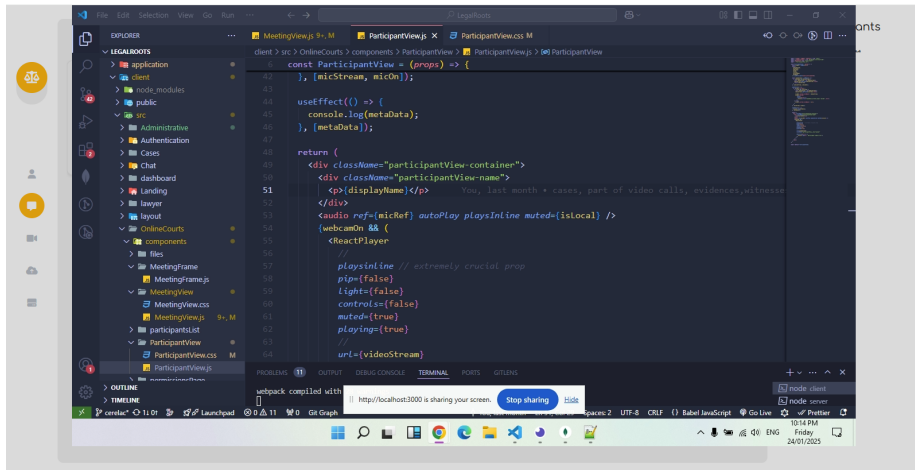


Figure 3.69: Online Court File Upload

through this menu the judges can control the permissions of all users in the court.

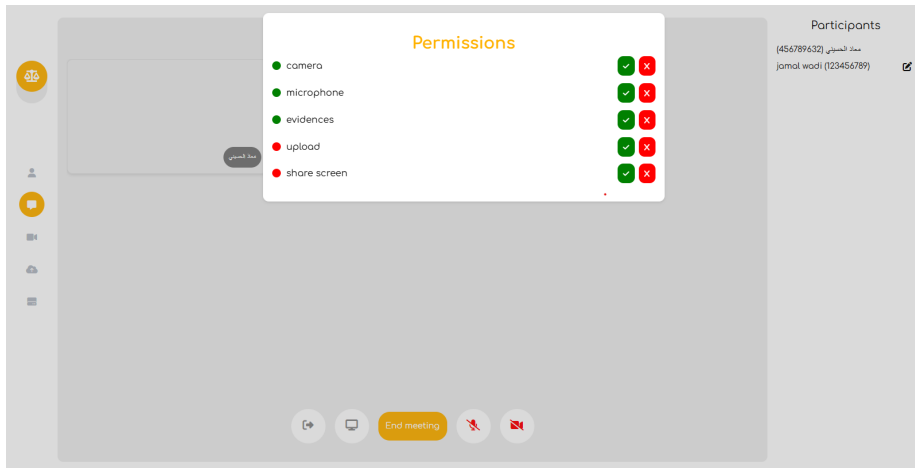


Figure 3.70: Online Court Permissions

### 3.2 Mobile Application

Same features as on the web application:

### 3.2.1 Login And Signup

#### Login

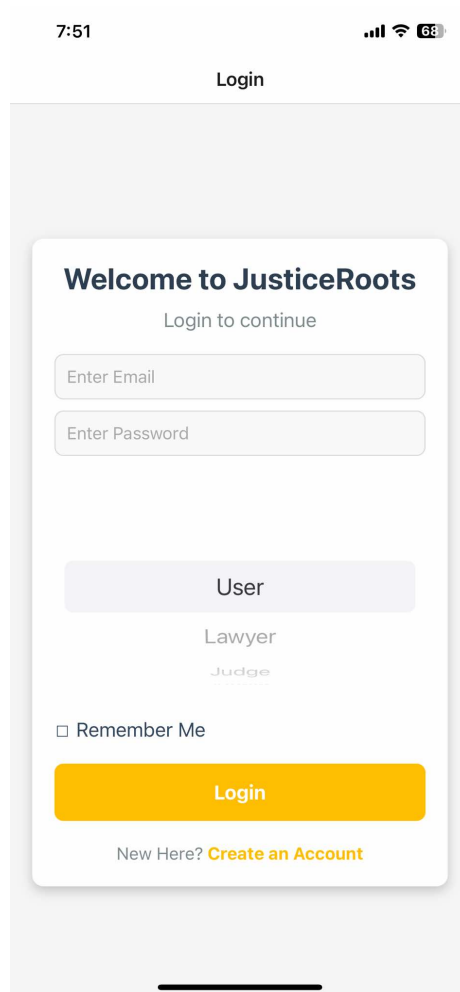
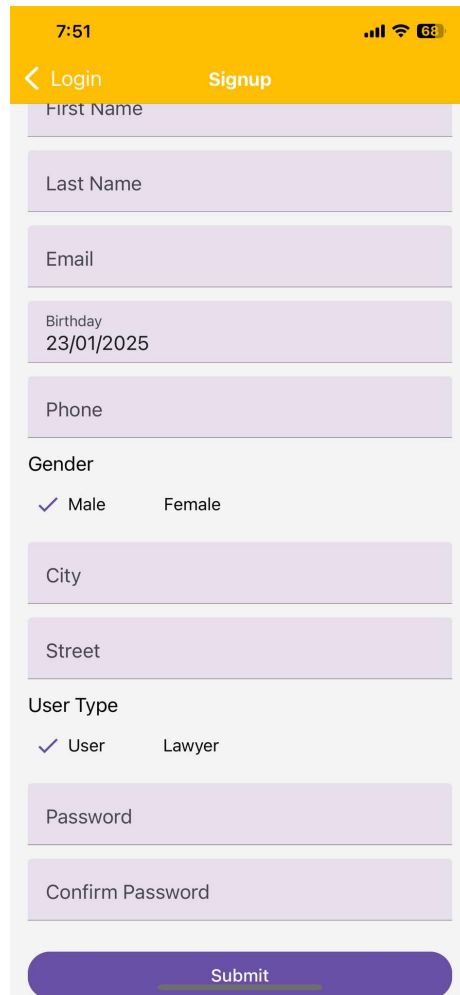


Figure 3.71: Login Page

## Signup



A mobile application screenshot of a signup page. The page has a yellow header with a back arrow, 'Login', and 'Signup' text. The form fields are: First Name, Last Name, Email, Birthday (23/01/2025), Phone, Gender (Male selected), City, Street, User Type (User selected), Password, and Confirm Password. A purple 'Submit' button is at the bottom.

7:51

< Login Signup

First Name

Last Name

Email

Birthday  
23/01/2025

Phone

Gender

Male  Female

City

Street

User Type

User  Lawyer

Password

Confirm Password

Submit

Figure 3.72: Sign up Page

### 3.2.2 User Dashboard

#### Profile

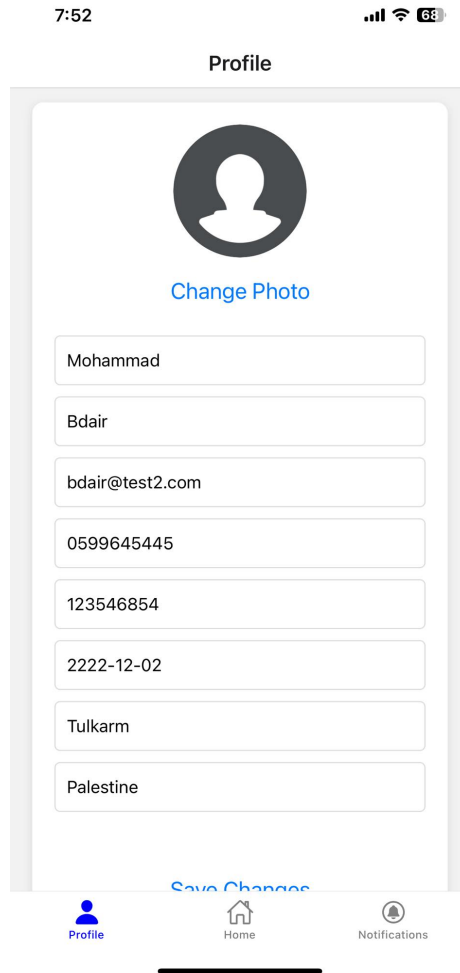


Figure 3.73: Client Profile

## Dashboard

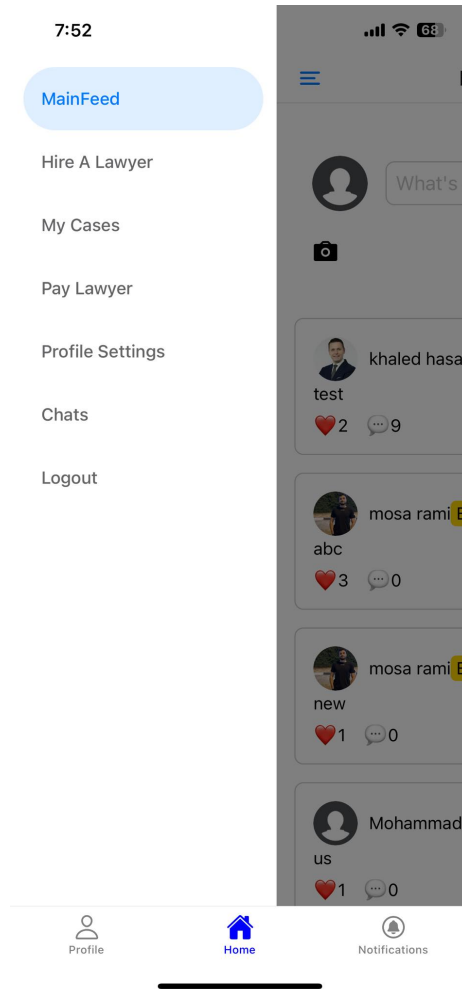


Figure 3.74: Client Dashboard

## Notifications

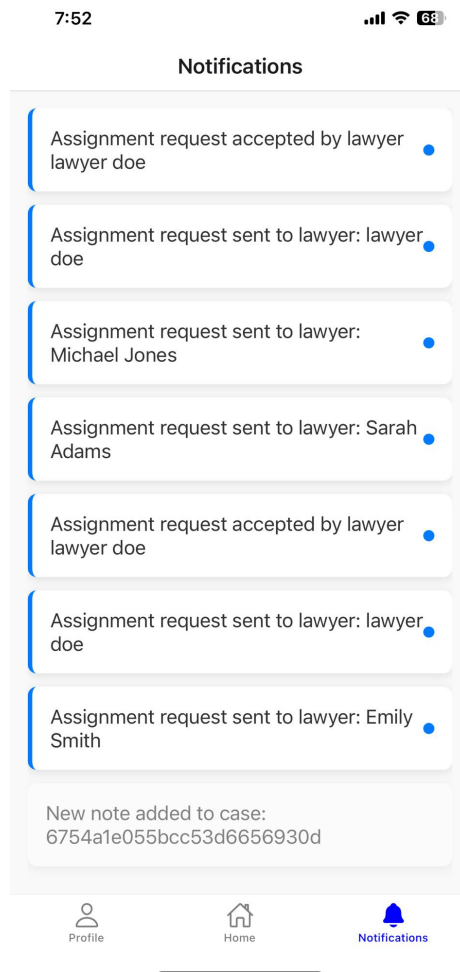


Figure 3.75: Client Notifications

## Main Feed

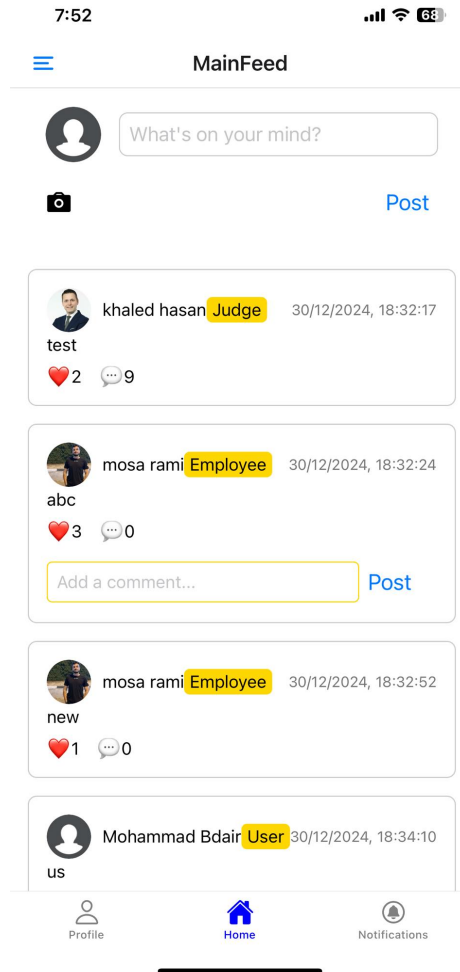


Figure 3.76: Main Feed

# Hire A Lawyer

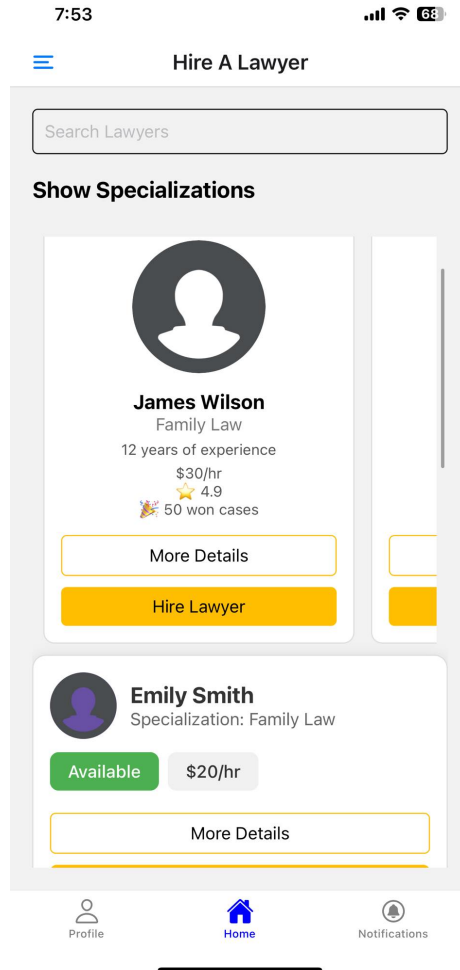


Figure 3.77: Hire A Lawyer

## James Wilson

Close

### James Wilson

Specialization: Family Law

Years of Experience: 12

Consultation Price: \$30

Rating (out of 5): 4.9

Last Active: 9 days ago

[Download CV](#)

### Contact Details

Email: familylaw2@test.com

Phone: 0599705678

City: Ramallah

Street: Al-Quds Street

### Performance Metrics

Total Cases: 60

Won Cases: 50

Lost Cases: 5

Ongoing Cases: 5

### Client Reviews

No reviews yet.



Figure 3.78: Lawyer Details

7:53



Select a Case

Case ID: 6769bd1fe40f56b54bb2b0d1  
Case Type: Traffic  
Case Description: a car accident occered there

Close

---

Figure 3.79: Select Case to hire

## Client Cases Page

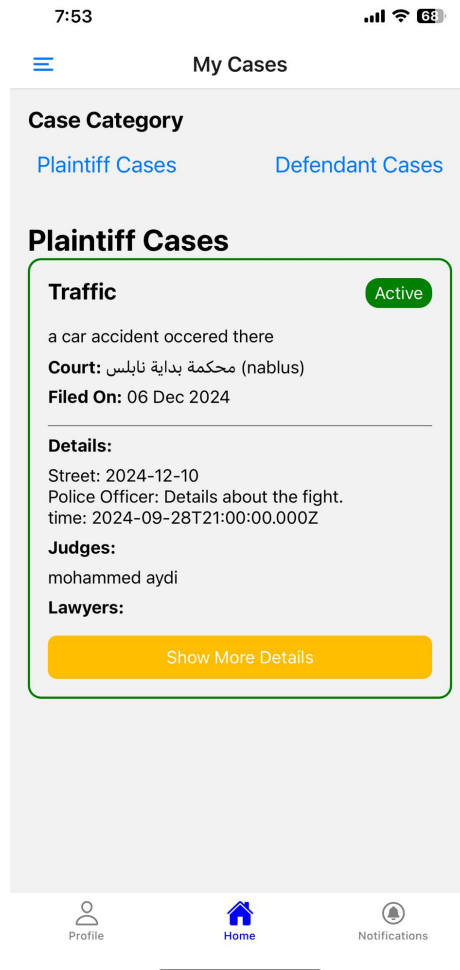


Figure 3.80: Client Cases

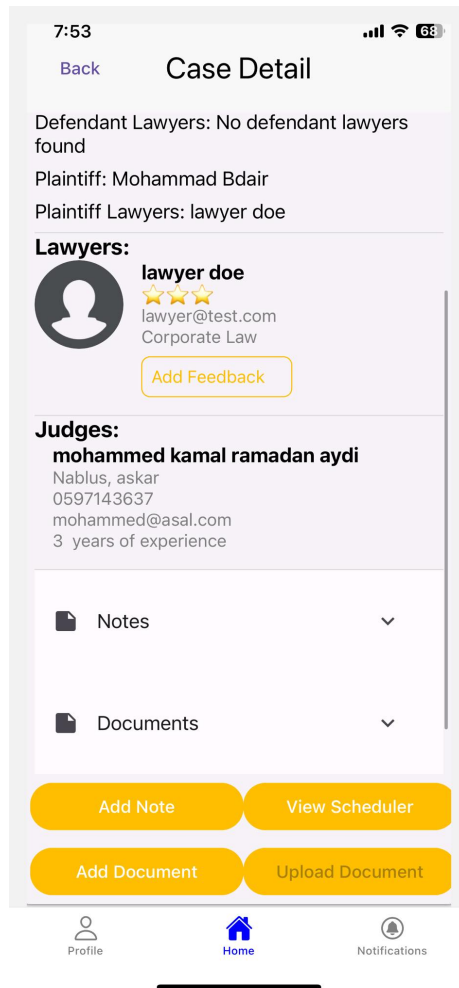


Figure 3.81: Case Details

## Client Cases Page

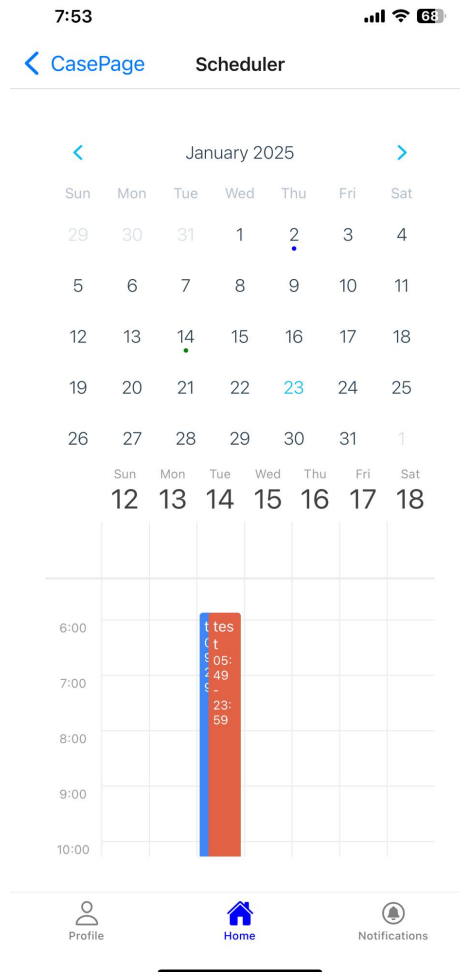


Figure 3.82: Case Scheduler


## Pay A Lawyer

7:53 📶 🔋 68%

☰ Pay Lawyer

### Pay Lawyer

lawyer doe



lawyer doe  
lawyer@test.com  
Consultation Price: 14\$

#### Payment Details

Card Number

Expiry Date  CVV

[Pay Now](#)

Profile Home Notifications

Figure 3.83: Pay a Lawyer

## Chats Page

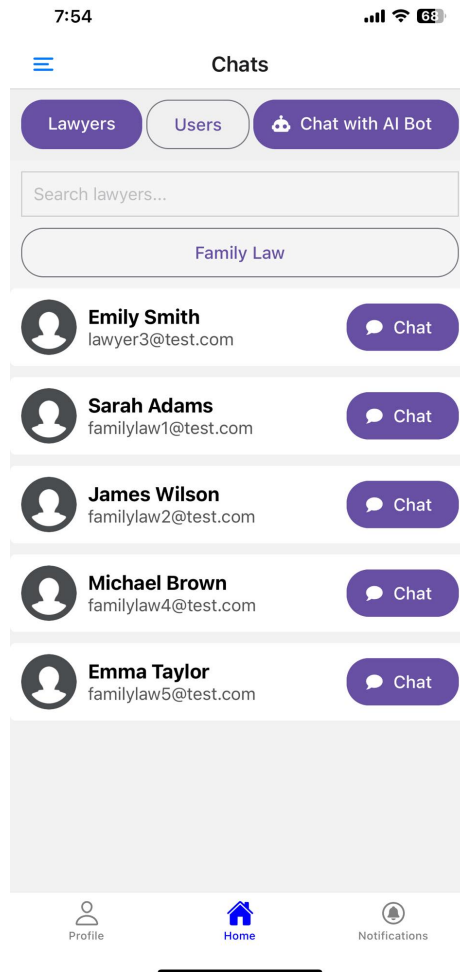


Figure 3.84: Chats Page

### 3.2.3 Lawyer Dashboard

Similar to lawyer's dashboard on the web application:

## Profile

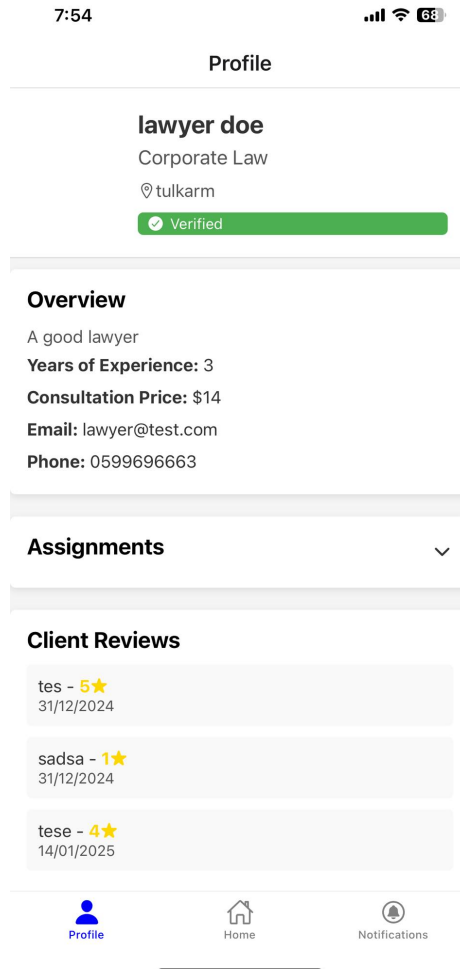


Figure 3.85: Lawyer Profile

## Notifications

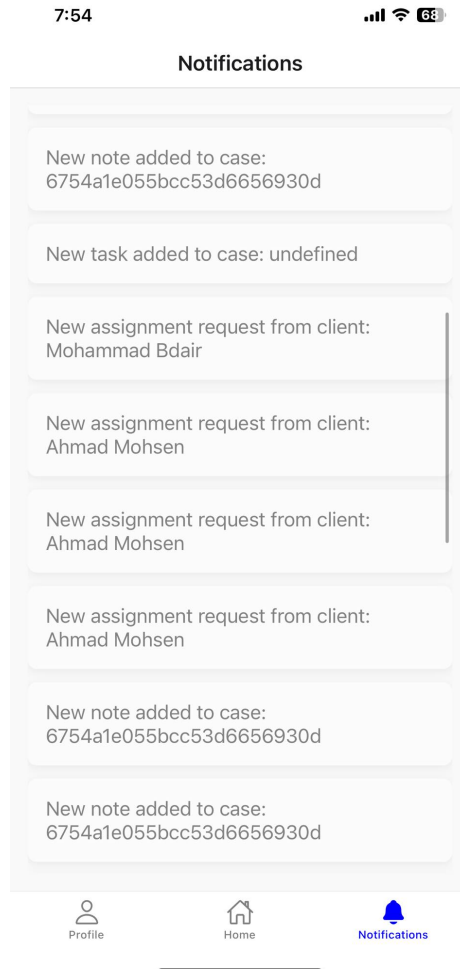


Figure 3.86: Notifications

## Dashboard

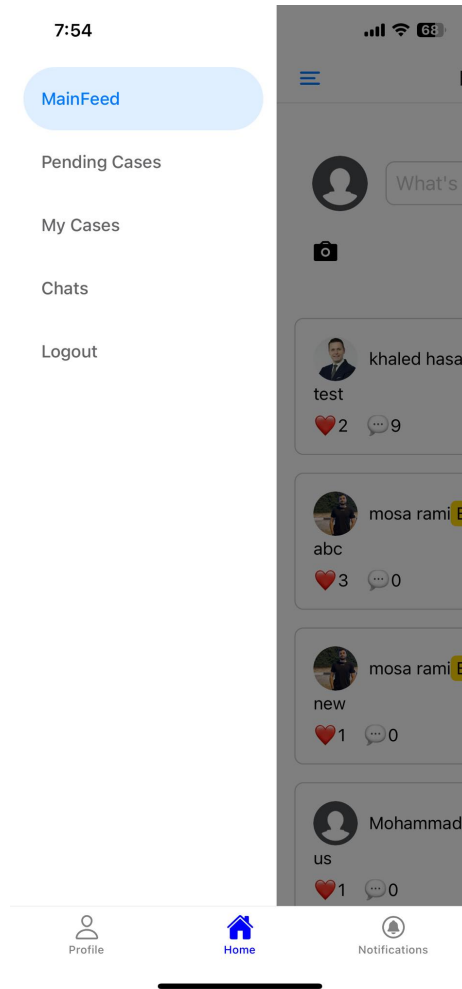


Figure 3.87: Dashboard

## Main Feed

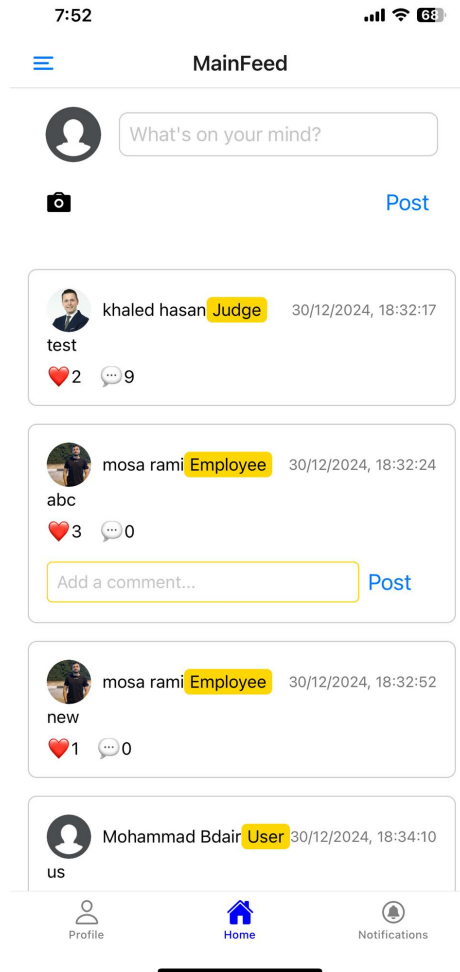


Figure 3.88: Main Feed

## Pending Cases

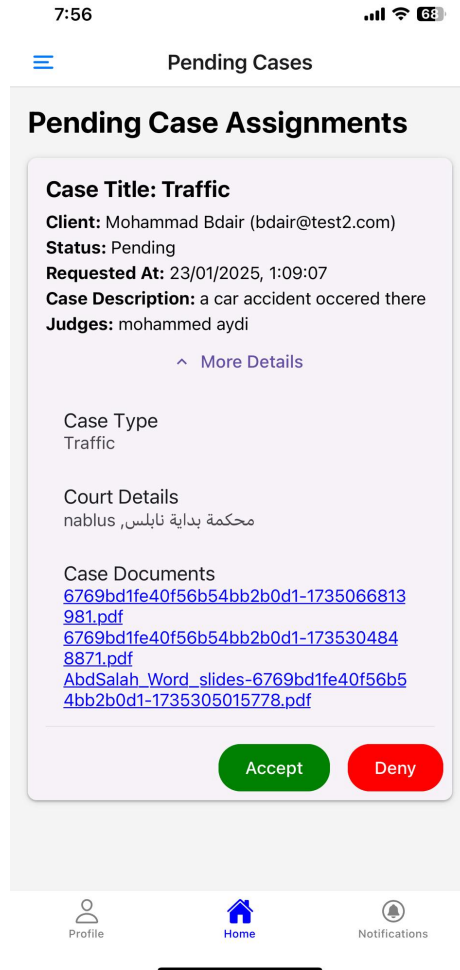


Figure 3.89: Pending Cases

## Lawyer Cases

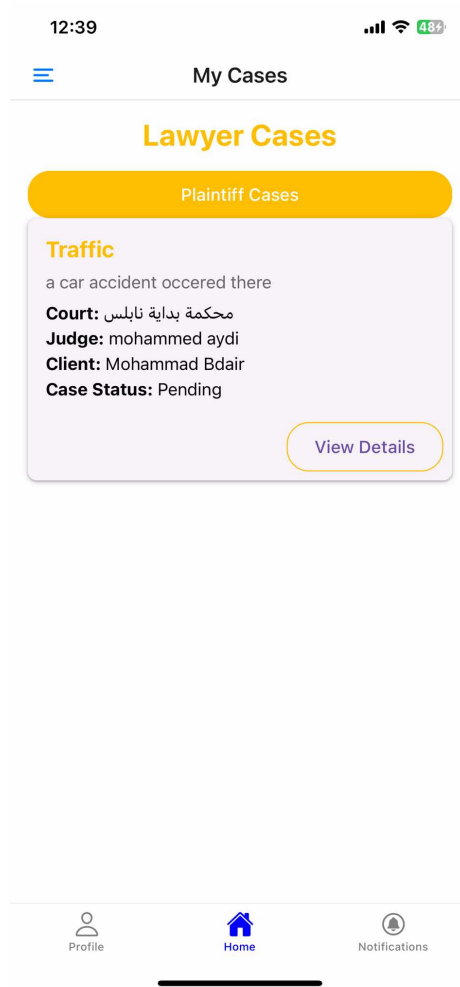


Figure 3.90: Lawyer Cases

## Lawyer Case Details

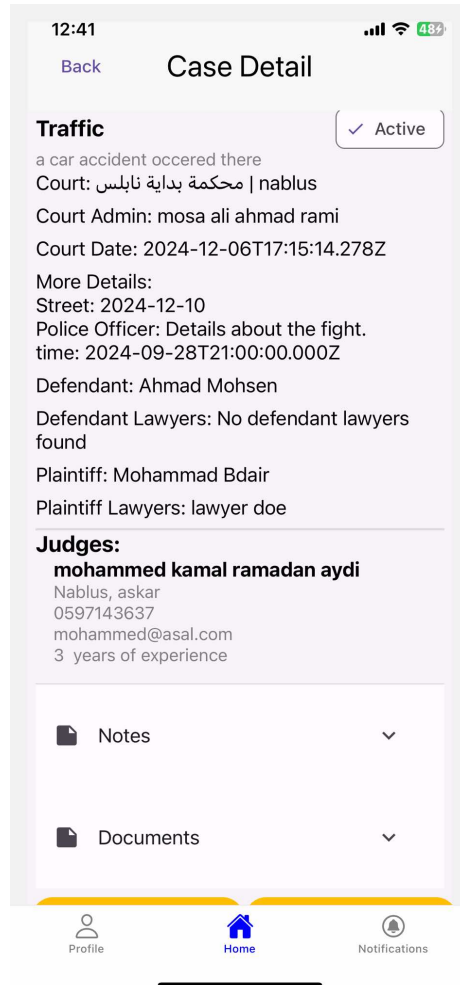


Figure 3.91: Lawyer Case Details

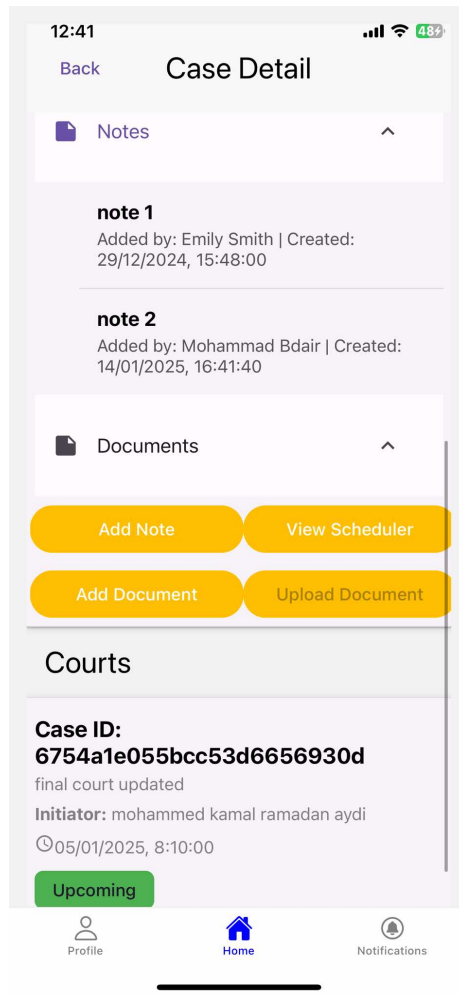


Figure 3.92: Lawyer Case Details

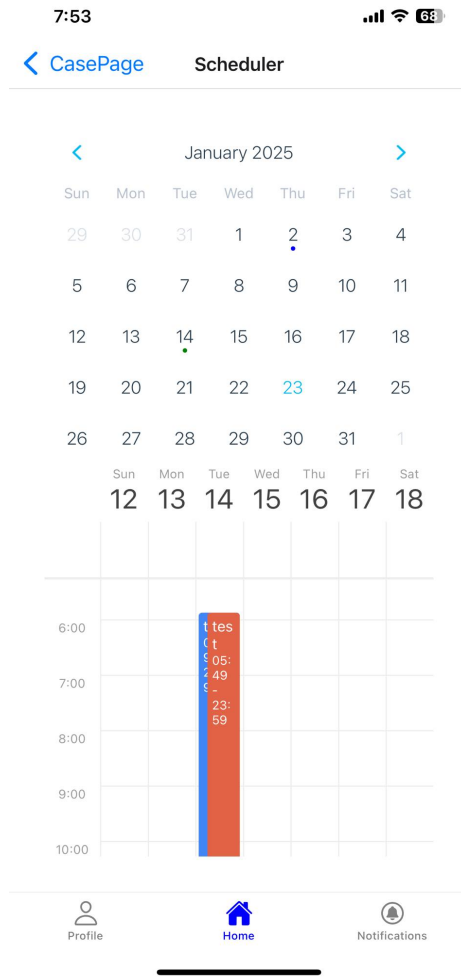


Figure 3.93: Case Scheduler

## Lawyer Chats

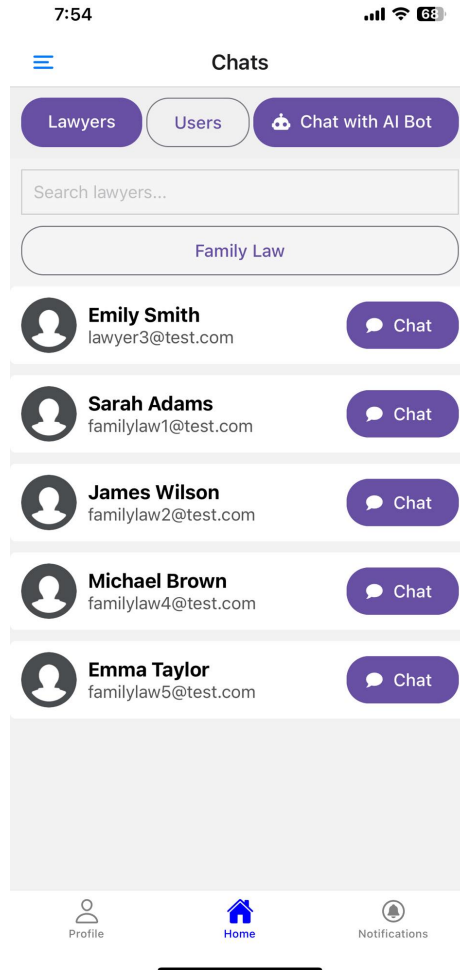


Figure 3.94: Lawyer Chats Page

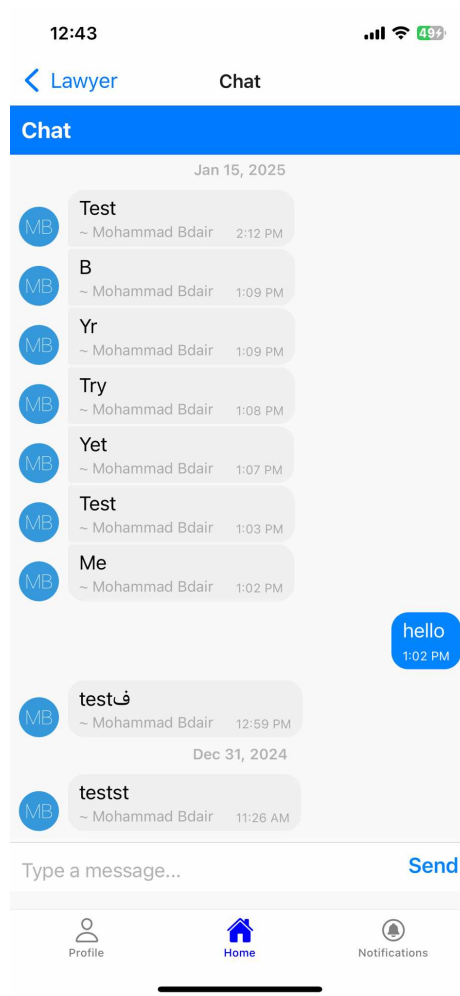


Figure 3.95: Chat

### 3.2.4 Employee Dashboard

some features of the web app, which enables the employee to view important data from their phone.

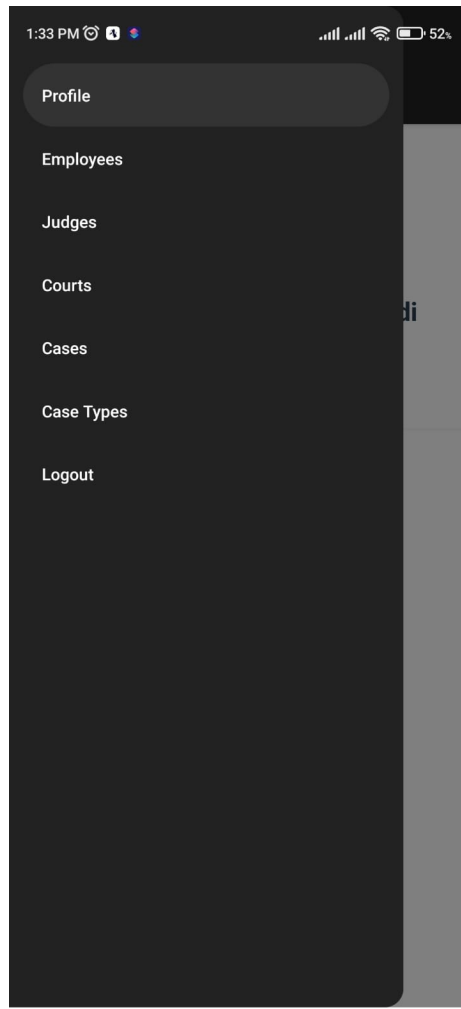



Figure 3.96: Employee Dashboard

## Profile

1:33 PM 52%

Profile

Ladle

**jamal ahmad mohammed wadi**  
ديوان القلم

---

Gender:  
male

Birthdate:  
2024-11-01

Phone:  
0597143637

Email:  
kamals@test.com

Court Branch:  
محكمة بداية نابلس

Figure 3.97: Employee Profile

## Employees

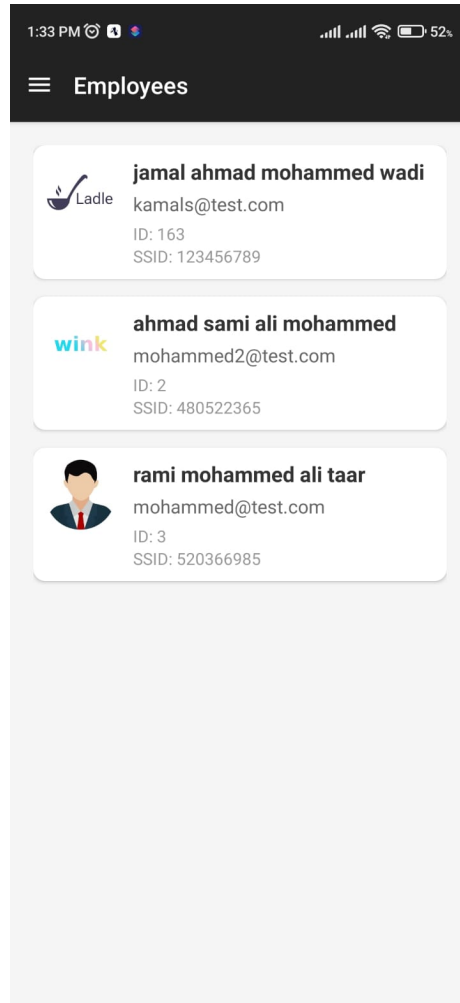


Figure 3.98: Employees data

## Judges

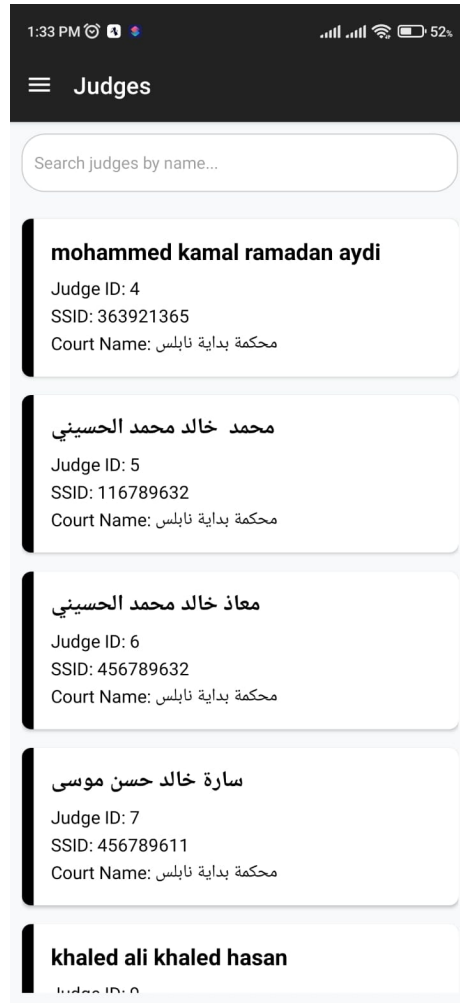


Figure 3.99: Judges data

## Courts

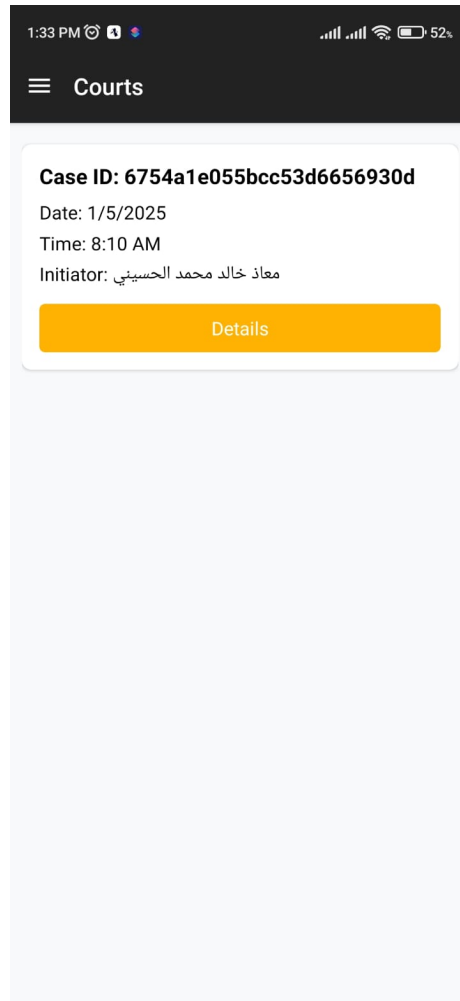


Figure 3.100: Courts data

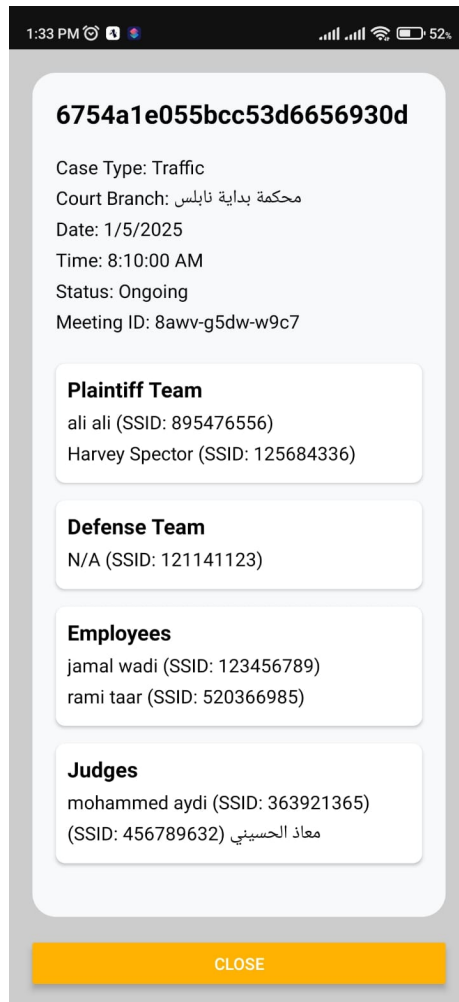


Figure 3.101: Court data

## Cases

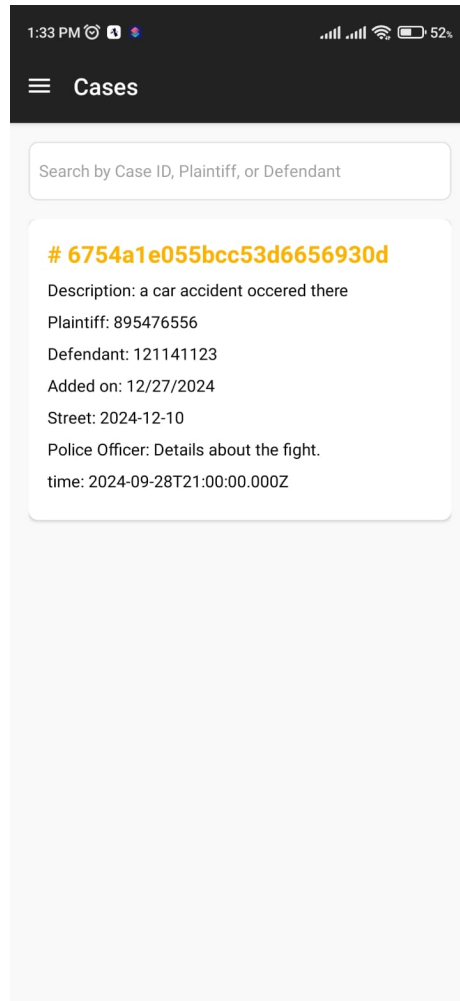


Figure 3.102: Cases data

## Case Types

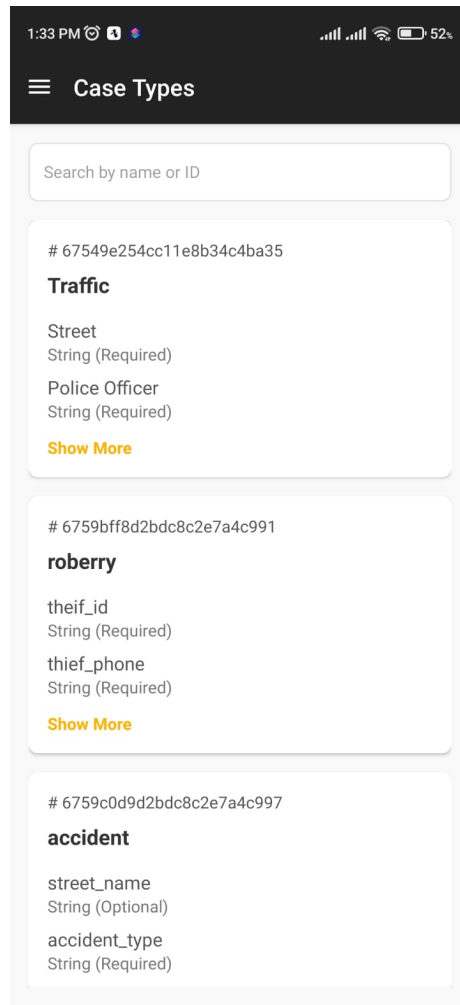


Figure 3.103: Case Types

### 3.2.5 Judge Dashboard

some features of the web app, which enables the judge to view important data via their phone.

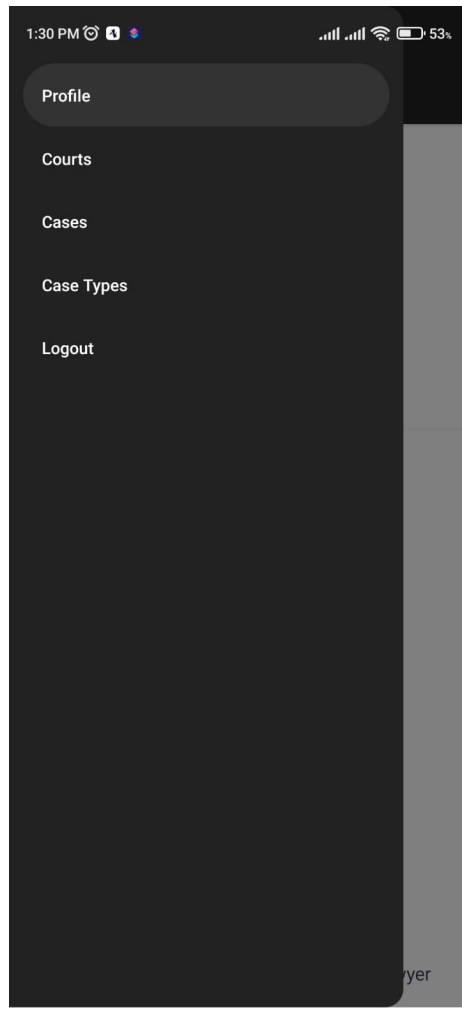
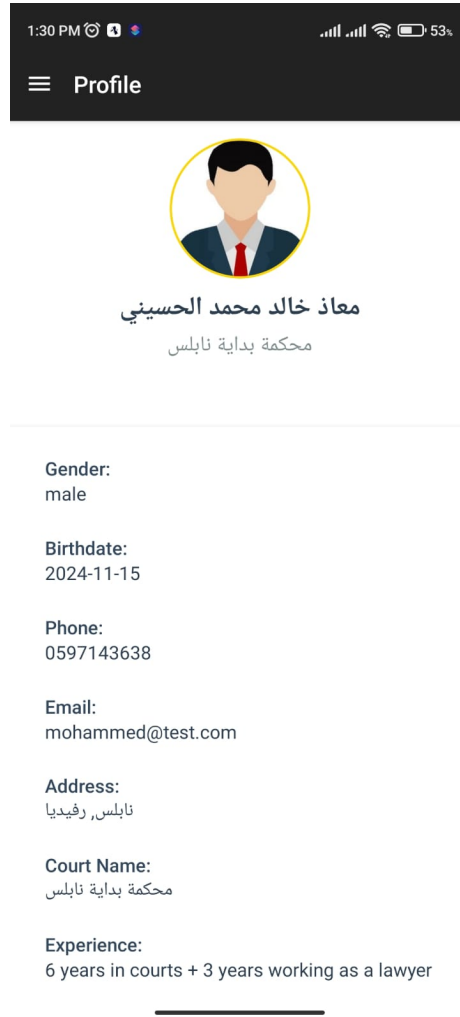


Figure 3.104: Judge Drawer

## Profile



The image shows a mobile application interface for a judge's profile. At the top, there is a dark header with a hamburger menu icon and the word "Profile". Below the header is a circular profile picture of a man in a suit and tie. Underneath the picture, the name "معاذ خالد محمد الحسيني" and the title "محكمة بداية نابلس" are displayed in Arabic. A horizontal line separates the header from the profile details. The details are listed as follows:

- Gender:** male
- Birthdate:** 2024-11-15
- Phone:** 0597143638
- Email:** mohammed@test.com
- Address:** نابلس, رفيديا
- Court Name:** محكمة بداية نابلس
- Experience:** 6 years in courts + 3 years working as a lawyer

Figure 3.105: Judge Profile

## Courts

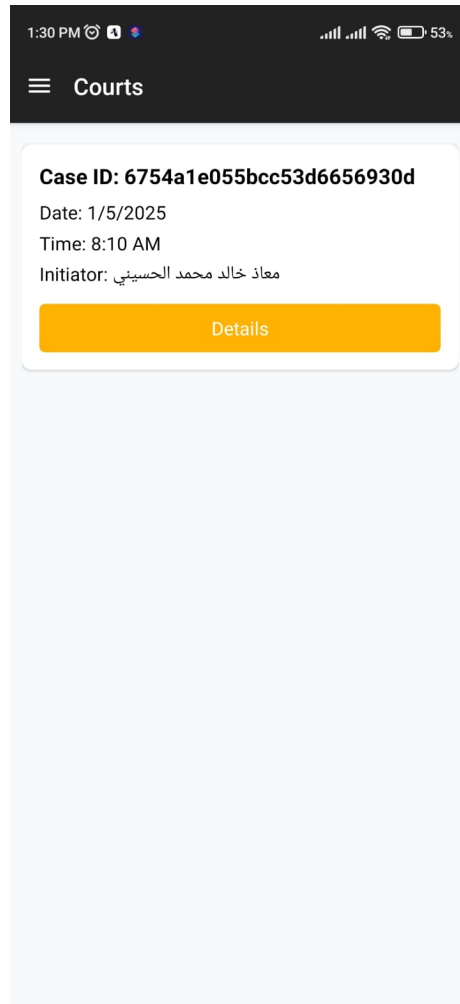


Figure 3.106: Courts data

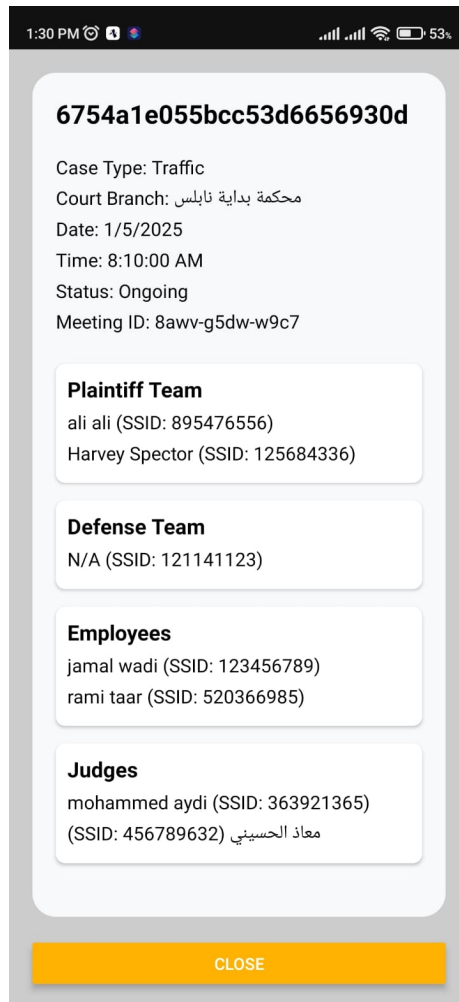


Figure 3.107: Court data

## Cases

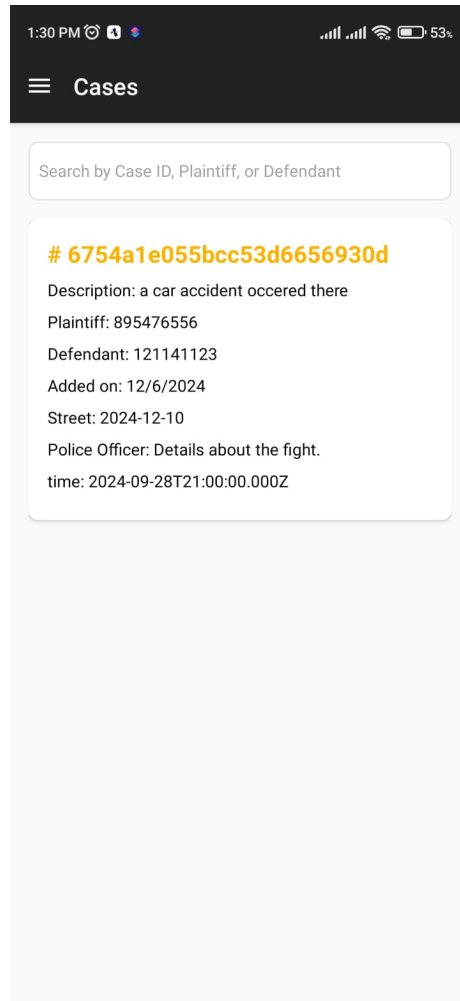


Figure 3.108: Cases data

## Case Types

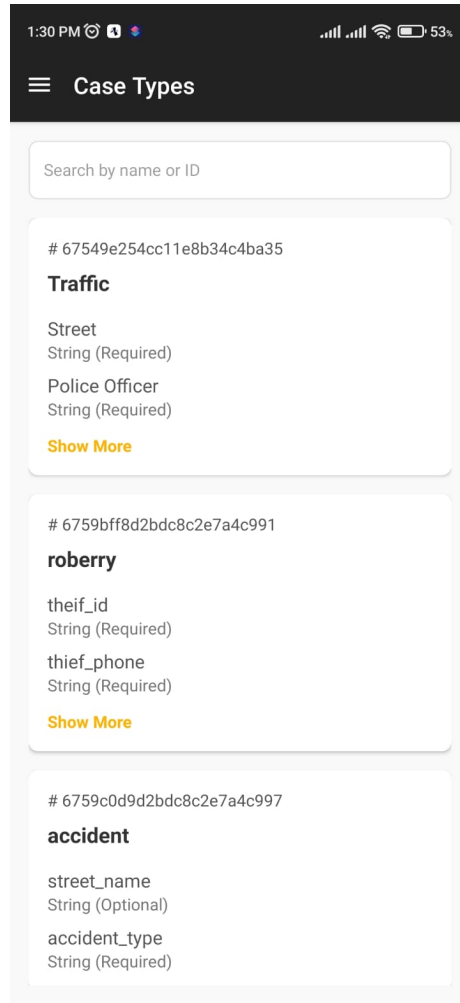


Figure 3.109: Case Types data

# Chapter 4

## Results and Discussion

JusticeRoots was developed to address the challenges of accessibility, efficiency, and transparency in the legal system. The results achieved reflect the platform's ability to meet its objectives through the integration of innovative technologies and user-centric design. This chapter discusses the outcomes observed during testing and deployment, evaluates their alignment with the project's objectives, and highlights challenges faced during development and how they were addressed.

### 4.1 Results

- **Improved Accessibility:** JusticeRoots successfully reduced the barriers to accessing legal services by providing a digital platform that connects users with lawyers and other legal professionals. User feedback indicated that the platform's intuitive interface enabled citizens with minimal technical knowledge to navigate and utilize its features effectively.
- **Efficiency in Case Management:** The real-time communication tools, case tracking features, and AI-driven lawyer recommendations streamlined the legal process. Testing revealed a significant reduction in the time required to initiate and manage cases, with users reporting greater satisfaction in tracking their case progress.
- **User Engagement:** The incorporation of social media-like features, such as a news feed and interactive posts, encouraged user engagement. Metrics such as time spent on the platform and interaction rates demonstrated the success of this approach in fostering collaboration and knowledge sharing among users.
- **Scalability and Performance:** Performance testing showed that the system could handle a large number of concurrent users without significant latency. The use of MongoDB ensured efficient data storage and retrieval, even under heavy loads.

## 4.2 Discussion

- **Challenges and Solutions:**

1. **Data Security and Privacy:** One of the most significant challenges faced during the development of JusticeRoots was ensuring the confidentiality and security of sensitive user data. Since the platform deals with legal cases, personal information, and professional communication, robust security measures were essential. This was addressed by implementing end-to-end encryption for communications, role-based access control to manage permissions, and regular vulnerability assessments to identify and fix potential security loopholes.
2. **User Interface and Experience:** Ensuring the platform was intuitive and user-friendly posed another challenge, especially given the diverse range of users with varying technical expertise. Iterative design processes, usability testing, and integrating feedback from focus groups helped refine the interface to meet user needs effectively.
3. **Legal Compliance:** Operating in a domain as regulated as the legal industry required careful consideration of local and international laws regarding data storage, processing, and user privacy.

- **User Feedback and Iterative Improvements:** Regular feedback loops from users played a critical role in identifying gaps and enhancing the platform. For instance, early adopters highlighted the need for better case categorization and simplified navigation for tracking legal documentation. These suggestions were incorporated into subsequent updates, significantly improving user satisfaction. Additionally, features like real-time notifications for case updates and document sharing were added based on user requests, enhancing the platform's practicality.
- **Alignment with Objectives:** JusticeRoots effectively met its core objectives by addressing key pain points in accessing legal services. The platform improved accessibility by providing a centralized digital space where users could find legal assistance without geographic constraints. It promoted transparency by allowing users to monitor their case progress and view shared documentation. Moreover, the integrated tools for case management and communication streamlined legal processes, reducing delays and increasing efficiency for all stakeholders.
- **Future Enhancements:** While the platform has delivered on its promises, there are still areas for growth. Expanding multilingual support to cater to a broader audience, integrating more legal resources and templates, and establishing partnerships with legal organizations for increased trust and credibility are potential directions for future development.

## **Chapter 5**

# **Conclusions and Recommendation**

### **5.1 Conclusions**

JusticeRoots has demonstrated its potential as an innovative platform for bridging the gap between citizens and the legal system. By integrating tools for real-time communication, case management, and user-friendly interfaces, the platform has streamlined legal processes and enhanced accessibility for diverse users. The development journey involved overcoming challenges related to data security, user interface design, and legal compliance, ultimately resulting in a solution that addresses the inefficiencies of traditional legal systems. JusticeRoots successfully fulfills its goal of creating a more transparent, efficient, and inclusive legal ecosystem, making justice more approachable for everyone.

### **5.2 Recommendations:**

To maximize the impact and adoption of JusticeRoots, it is recommended that further emphasis be placed on user education and awareness campaigns to familiarize individuals with the platform's capabilities. Strengthening collaborations with legal institutions and professional organizations can bolster credibility and expand the user base. Additionally, offering tailored solutions for specific legal practices or regions can cater to unique needs and encourage widespread usage. Regularly updating the platform based on user feedback will ensure it remains relevant and continues to address emerging challenges in the legal sector.

### **5.3 Future Work:**

The future of JusticeRoots lies in its ability to evolve with the needs of its users and the legal industry. Potential areas of exploration include integrating support for mul-

tilingual users to broaden the platform’s reach and incorporating advanced tools for legal research and document automation to further assist professionals. Expanding partnerships with governmental and non-governmental organizations can enhance the platform’s credibility and functionality. Continued focus on refining the user experience, coupled with the adoption of emerging technologies, will ensure that JusticeRoots remains a vital tool for transforming the legal landscape.

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- [1] R. Susskind, *Online courts and the future of justice*. Oxford University Press, 2019.
- [2] R. E. Susskind, “Expert systems in law: A jurisprudential approach to artificial intelligence and legal reasoning,” *The modern law review*, vol. 49, no. 2, pp. 168–194, 1986.
- [3] L. Bedford, “Using social media as a platform for a virtual professional learning community,” *Online Learning*, vol. 23, no. 3, pp. 120–136, 2019.
- [4] D. Habrat, “Legal challenges of digitalization and automation in the context of industry 4.0,” *Procedia Manufacturing*, vol. 51, pp. 938–942, 2020.