<u>Legal-Sathi: Legal Service Provider Booking</u> <u>Application</u>

A Dissertation submitted

for the partial fulfillment of the degree of

Bachelor of Engineering in

Information Technology Engineering

(Session 2023-2024)

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Dissertation Approval Sheet

The dissertation entitled "Legal-Sathi: Legal Service Provider Booking Application" submitted by Ali Hussain Mansuri and Aman Tripathi is approved as partial fulfillment for the award of Bachelor of Engineering in Information Technology degree by Devi Ahilya Vishwavidyalaya, Indore.

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Recommendation

The dissertation entitled "Legal-Sathi: Legal Service Provider Booking Application" submitted by Ali Hussain Mansuri and Aman Tripathi is a satisfactory account of the bonafide work done under my supervision is recommended towards the partial fulfillment for the award of Bachelor of Engineering in Information Technology degree by Devi Ahilya Vishwavidyalaya, Indore.

Project	Guide
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Dr. Vrinda Tokekar Head,
Department of Information Technology

Candidate Declaration

We hereby declare that the work which is being presented in this project entitled

Legal-Sathi: Legal Service Provider Booking Application in partial fulfillment

of degree of Bachelor of Engineering in Information Technology is an authentic

record of our own work carried out under the supervision and guidance of Mr.

Shyam Maheshwari, Assistant Professor in Department of Information

Technology, Institute of Engineering and Technology, Devi Ahilya

Vishwavidyalaya, Indore

We are fully responsible for the matter embodied in this project in case of any

discrepancy found in the project and the project has not been submitted for the

award of any other degree.

Date:

Place: Indore

Ali Hussain Mansuri

Aman Tripathi

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Information Technology Department and Dr. Vrinda Tokekar Ma'am, Director

Institute of Engineering & Technology, Devi Ahilya Vishwavidyalaya who gave

us the golden opportunity to do this wonderful project.

Sincerely,

Ali Hussain Mansuri

Aman Tripathi

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ABSTRACT

In the landscape of India's legal service sector, the absence of a centralized platform has resulted in challenges such as a lack of transparency, difficulty in finding suitable legal service providers, and elevated costs for clients. This project endeavors to address these issues by proposing an incentivized eMarketplace designed to onboard legal service providers, offering enhanced accessibility and transparency. The envisioned platform should be user-friendly, secure, and capable of tackling challenges related to incentivization, transparency, service quality, matchmaking, and socio-economic inclusivity. Proposed solutions may incorporate bonus structures, rewards, and gamification for provider motivation, along with integration possibilities with legal institutions.

Expected Outcomes:

- The developed e-marketplace will serve as a centralized hub connecting legal service providers with clients.
- Clients will have the ability to create personalized profiles, tailoring their experience within the platform.
- A comprehensive set of features will empower users to conveniently access legal services.
- Future enhancements may encompass augmented reality (AR) try-on experiences, personalized recommendations, and multilingual support.
- The project anticipates continuous evolution and expansion, contributing to the transformation of legal services in India.

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Chapter-1 Introduction

1.1 Overview and Issues Involved

The proposed eMarketplace for legal services in India is a transformative initiative designed to organize and enhance the legal service sector. The platform offers a centralized hub for connecting legal service providers with clients. Key features include location-based filtering for user convenience, multilingual support to accommodate India's linguistic diversity, and specialized case filters for precise service matching. An integral component of the platform is the incentivized competition model, motivating legal service providers to excel in their performance. The introduction of a dynamic leaderboard showcases top-performing lawyers, providing clients with valuable insights into the reputations of various professionals. These features collectively contribute to enhanced transparency, making detailed provider profiles, including location, language proficiency, and specialization, readily accessible. The platform's design addresses challenges related to efficient provider matching, cost management through competitive pricing, and the assurance of service quality through a robust framework of user reviews and success rates.

The platform prioritizes socio-economic inclusivity through a user-friendly interface and multilingual support. It is designed for scalability, allowing seamless integration with legal institutions for future expansion. This concise overview highlights the platform's potential to revolutionize the legal service sector in India with its innovative, transparent, and user-centric approach.

1.1 The primary objectives of the Legal-Sathi e-marketplace include:

• Organize the Legal Service Sector: The platform aims to bring organization to the largely unorganized legal service sector in India by providing a centralized hub for legal professionals to offer their services.

- Enhance Accessibility: Facilitate easy access to legal services for citizens by offering a user-friendly platform that enables them to find, connect with, and engage legal service providers based on their specific needs.
- Ensure Transparency: Address the lack of transparency in the legal service sector by implementing features such as incentivized competition, dynamic leaderboards, and user reviews, promoting accountability and transparency in service provision.
- **Incentivize Legal Service Providers:** Develop a system that incentivizes legal service providers to join the platform, ensuring a diverse pool of professionals offering their services and fostering healthy competition.
- Ensure Service Quality: Implement measures to ensure the quality of legal services by encouraging competition among service providers and allowing users to provide feedback, contributing to continuous improvement.
- **Socio-Economic Inclusivity:** Design the platform to be accessible to citizens from all socio-economic backgrounds, addressing the diverse needs of the population.
- **Integration with Legal Institutions:** Plan for future integration with legal institutions, including courts, legal aid clinics, and bar associations, to create a comprehensive legal ecosystem.
- **Multilingual Support:** Incorporate multilingual support to cater to India's linguistic diversity, ensuring that users can interact with the platform in their preferred language.
- Location-Based Filtering: Introduce location-based filtering to help users find legal service providers in their vicinity, enhancing convenience and accessibility.
- Specialized Case Filters: Implement specialized case filters to enable users to find legal professionals with expertise in specific areas of law, ensuring precise service matching.

1.2 Problem Definition

- Unorganized Legal Sector: India's legal services are disorganized, making it
 hard for citizens to find the right services due to the lack of a centralized
 platform.
- Lack of Transparency: Without a centralized system, there's little transparency, leading to difficulties in identifying suitable legal providers and potential high costs.
- Access Barriers: The decentralized nature of legal services limits accessibility, particularly for those from diverse socio-economic backgrounds.
- Quality Assurance: Ensuring service quality among numerous independent providers is challenging without accountability mechanisms.
- **Incentivizing Participation**: Effective incentives are needed to encourage legal service providers to join and actively participate in the proposed platform.

1.3 Proposed Solution

"Legal-Sathi" aims to address these issues by developing an innovative eMarketplace with the following features:

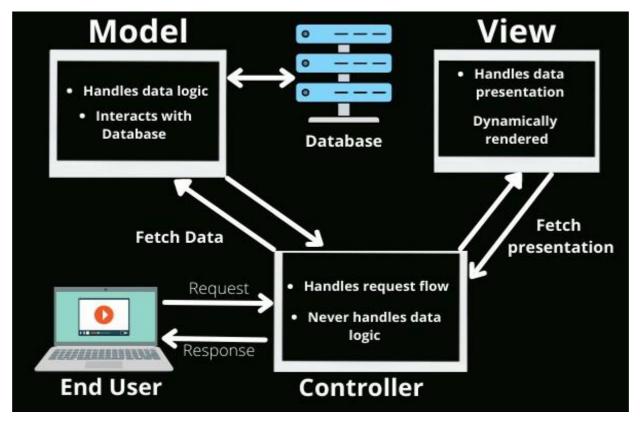
- Centralized Legal-Services Hub: A comprehensive platform for various legal services, simplifying access by centralizing the unorganized sector.
- User-Centric Design: A user-friendly interface with intuitive navigation, personalized profiles, and efficient filters to enhance user experience.
- **Incentivization Mechanisms**: Attract legal service providers through bonuses, rewards, and recognition to foster active participation.
- Transparency and Accountability Measures: Implement feedback mechanisms for clients to rate and review providers, ensuring high service standards.
- Accessibility Initiatives: Ensure accessibility for all users with features like multilanguage support, easy navigation, and outreach programs to reach a broader audience.

CHAPTER 2 LITERATURE SURVEY

2.1 Methodology

Our primary objective is to create an e-marketplace application that offers a personalized and secure legal service provider booking application for client while ensuring effective two-way communication between clients and the lawyers.

In achieving this goal, we have adopted the Model-View-Controller (MVC) architectural pat - tern. The MVC pattern divides the application into three distinct logical components: the model, the view, and the controller. Each of these components is tailored to handle specific aspects of application development, promoting scalability and extensibility. The MVC framework is a widely recognized industry standard for web development, particularly for creating projects that can grow and adapt over time.



2.1.1 MVC Architecture

Model: The Model component in our e-marketplace application encompasses all data-related logic with which clients interact. It is responsible for managing data transfers between the View and controller component, as well as any other business logic realted data. For instance, a User Mode retrieves product information from the database, processes and manipulates data, and updates it in the database. It plays a critical role in handling data storage, retrieval, and management within the application.

View : The View component in our e-marketplace application is dedicated to managing the user interface (UI) logic. It comprises all UI elements that customers interact with when using the application. For example, the Lawyer View includes UI components like lawyer lists, lawyer details, booking interfaces, and other elements that client interact with when browsing and booking lawyers.

Controller: The Controller is the third and integral component of our MVC architecture. It is responsible for handling user requests, processing input, and orchestrating the interactions between the Model and View components. The Controller ensures that when a customer interacts with the application, the appropriate View is rendered with data from the Model as a response. It plays a vital role in managing the flow of data and user interactions, making the application responsive to user requests. This architecture allows us to develop an e-marketplace application that is structured, maintain-able, and extensible. It promotes the separation of concerns, ensuring each component has a specific role and within the application. By adopting this industry-standard framework, we aim to create a robust and adaptable ecommerce platform that aligns with modern web develop- ment practices and provides customers with an exceptional shopping experience.

2.2 Technology Stack



2.3 Existing Solutions

- **LegalMatch** has a large network of lawyers, which means that clients are more likely to find a lawyer who meets their needs. It also offers a free initial consultation, which can be helpful for clients who are not sure if they need to hire a lawyer.
- Rocket Lawyer offers a variety of legal services, including document review, legal advice, and legal representation. It also offers a subscription plan that includes access to a variety of legal documents and resources, which can be helpful for businesses and individuals who have ongoing legal needs.
- **UpCounsel** is specifically designed for businesses. It offers a variety of features that are helpful for businesses, such as the ability to get quotes from multiple lawyers and the ability to hire lawyers on a subscription basis.
- LawRato is a popular platform in India. It offers a variety of features that are helpful for Indian clients, such as the ability to search for lawyers by language and the ability to pay for legal services using Indian payment methods.
- **Legalkart** is another popular platform in India. It offers a variety of features that are helpful for Indian clients, such as the ability to search for lawyers by city and the ability to book appointments online.

CHAPTER-3 ANALYSIS

3.1 Software Requirements:

To ensure a seamless shopping experience for customers on "Legal-Sathi: Legal Service Provider Booking Application" the following software requirements are necessary:

Web Browsers:

The e-market application should be accessible and fully functional on a variety of web browsers. Customers should be able to use the platform with ease. We recommend the use of modern and widely-used web browsers, including:

- Google Chrome
- Mozilla Firefox
- Microsoft Edge
- Opera Browser

Operating Systems:

The application should support multiple operating systems to accommodate a broad range of users. Customers should be able to access "Chanchala Garment's CG-Store" on the following operating systems:

- Windows 7 or above
- Mac OS X 10.9 or above

3.1 Hardware Requirements:

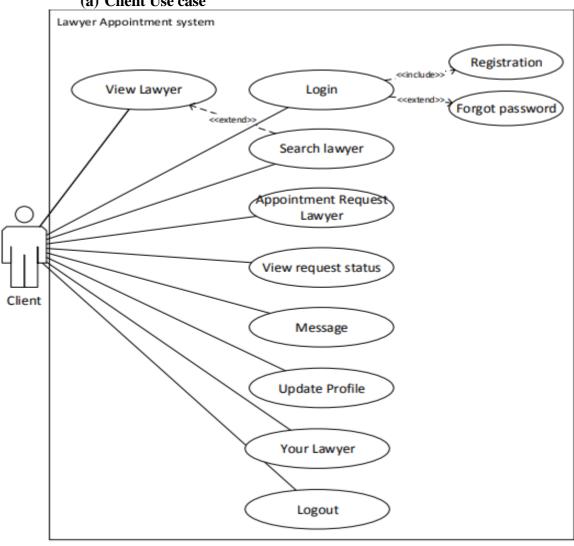
To ensure customers can access and use "Legal-Sathi: Legal Service Provider Booking Application" with optimal performance, the following hardware requirements are recommended:

- Computing Devices: "Legal-Sathi: Legal Service Provider Booking Application" is designed to be accessible on a variety of computing devices, including laptops and PC's.
- **Processor:** An Intel i3 processor (1GHz or higher) or an equivalent processor is recommended to provide customers with a smooth and responsive shopping experience.
- **Graphics:** Graphics capabilities are essential for rendering images and visuals on the application. We recommend an Intel HD3000 graphics card or a comparable graphics card to ensure a visually pleasing and seamless experience.
- **Memory (RAM):** Having sufficient memory is crucial for the application's performance. We recommend a minimum of 4GB of RAM to facilitate smooth and efficient operations.
- **Storage:** Customers should have sufficient disk space available on their devices to install and run a web browser to access "Legal-Sathi: Legal Service Provider BookingApplication".

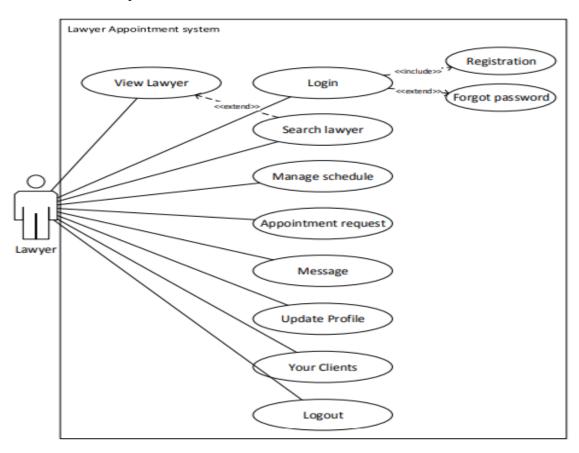
3.1 Analysis Diagrams:

3.1.1 Use Case Diagram:

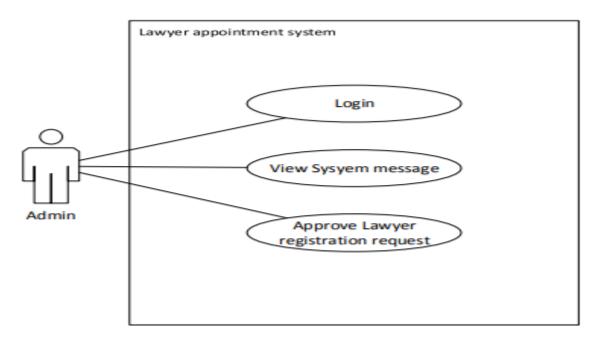
(a) Client Use case



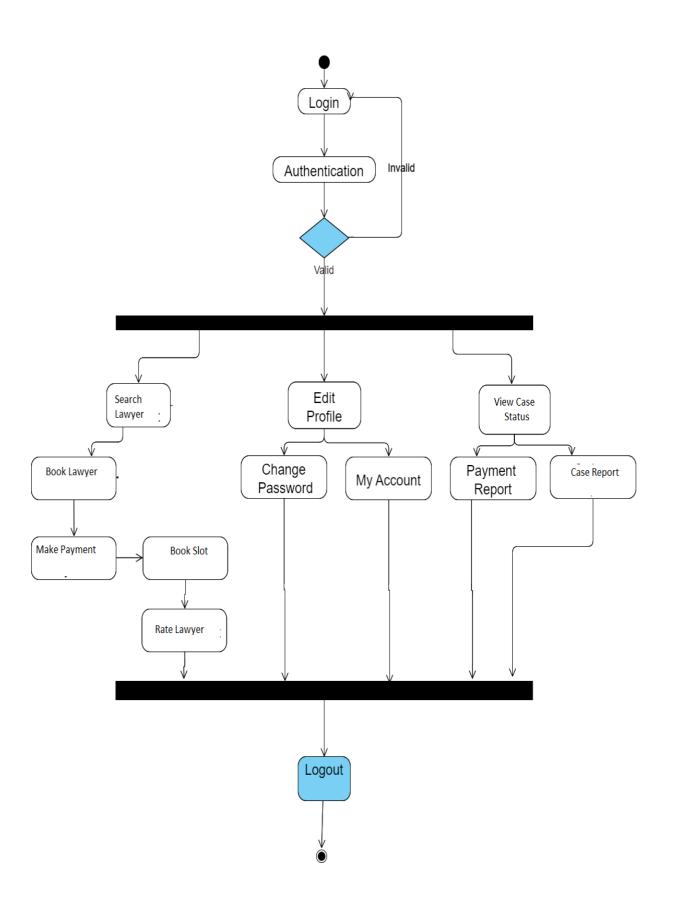
(b) Lawyer Use case



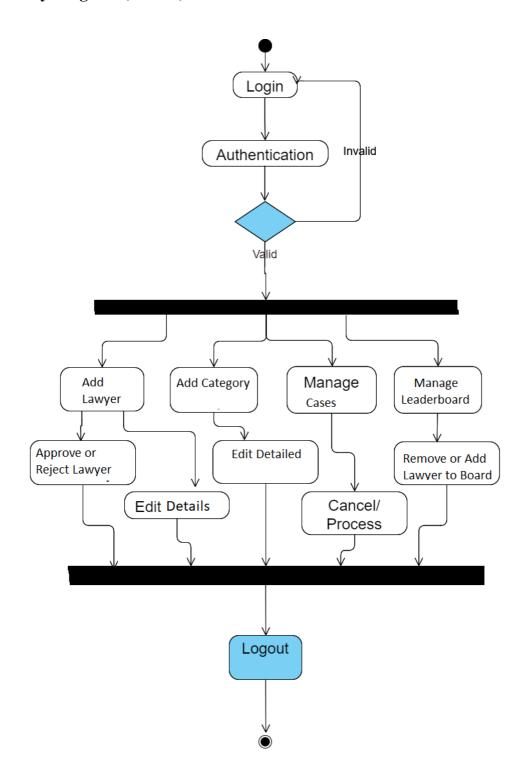
(c) Admin Use Case



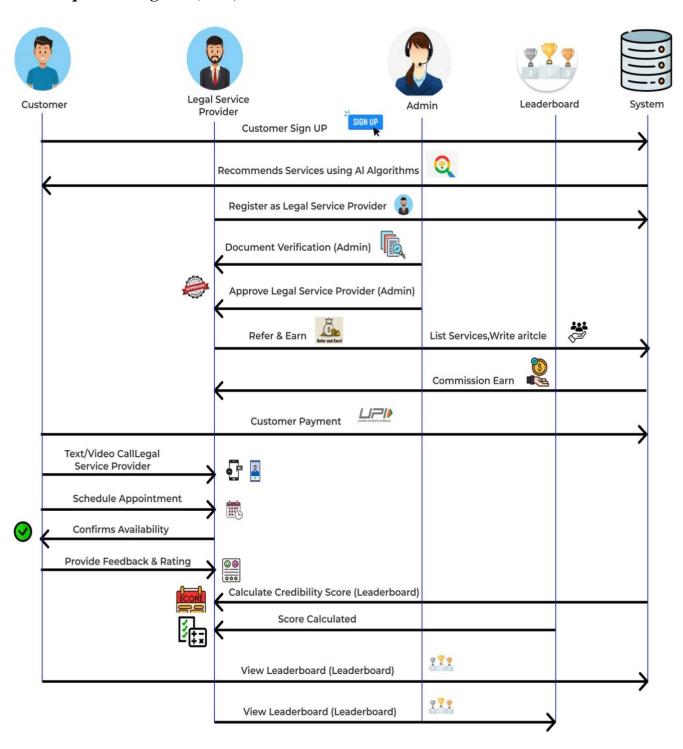
3.1.2 Activity Diagram (User):



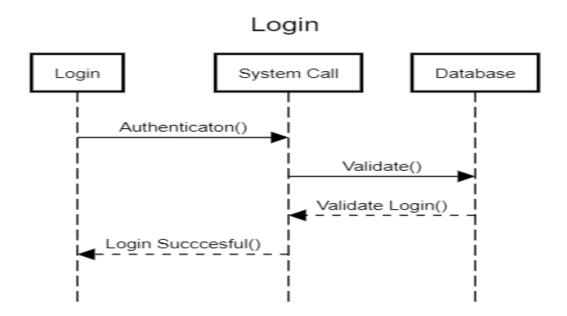
3.1.3 Activity Diagram (Admin):



3.1.4 Sequence Diagram (User):



3.1.4 Sequence Diagram (Login):



Chapter-4 Implementation and Testing

4.1 Database Design Models

• User Model

Table 4.1 User Model

Attribute	Data Type
_id	ObjectId
firstName	String
lastName	String
email	String
password	Array
address	String

• Admin Model

Table 4.2 Admin Model

Attribute	Data Type
_id	ObjectId
name	String
email	String
password	String
isAdmin	Boolean

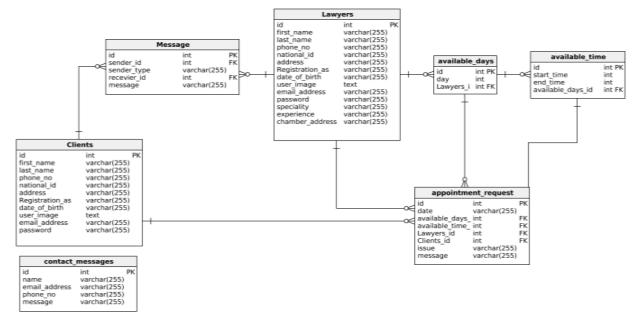
• Legal Service Provier Model:

Table 4.3 Legal Service Provider Model

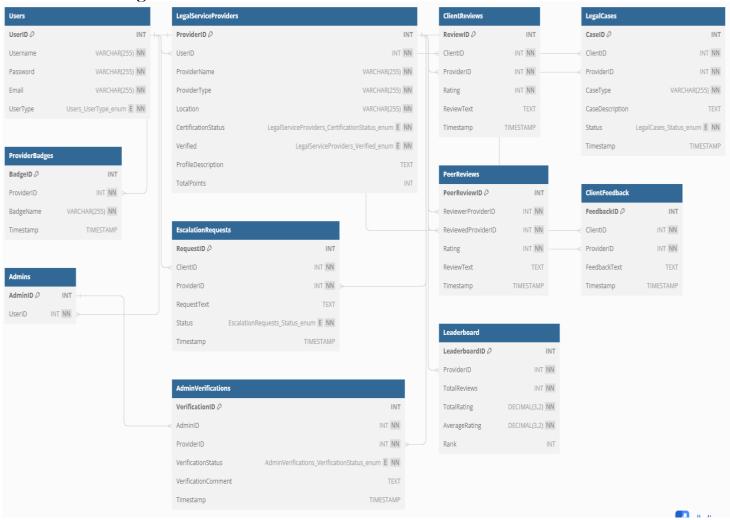
Attribute	Data Type
_id	ObjectId
firstName	String
lastName	String
email	String
password	String
city	String
state	String
barCouncilId	String
gender	String
langauges	Array of Strings
specialization	Array of String
rating	Number
experience	Number
image	Object
aadhar	String

4.2 ER Diagram

An Entity-Relationship (ER) diagram is a visual representation of the relationships between entities in a database. It helps illustrate the structure of a database and the relationships between its entities.



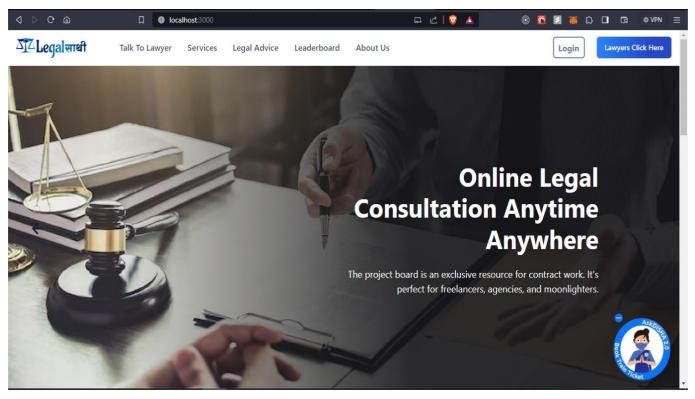
4.4 Database Diagram:



4.4 Screenshots

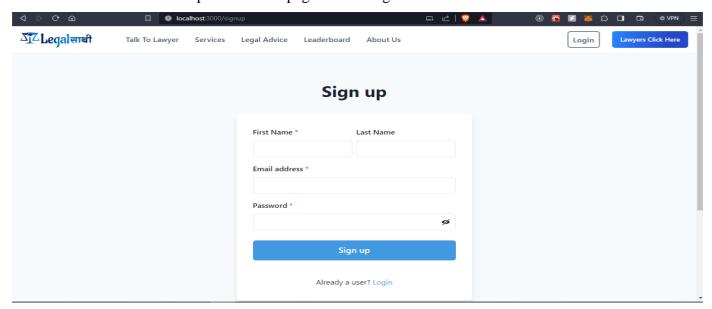
4.4.1 Home Page

This snapshot gives us the information of how the home page of the project will be visible to an unregistered user.



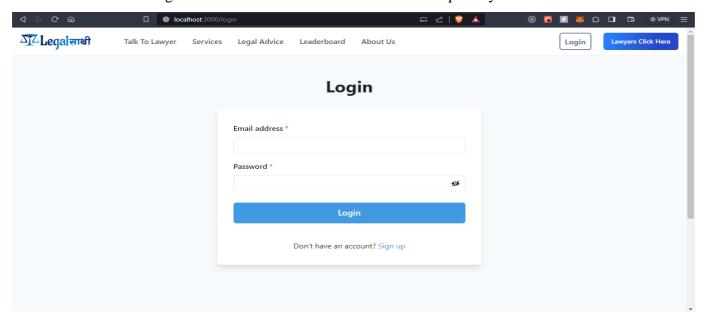
4.4.2 Signup Page

This snapshot shows the login/register page for the users and admin and after successful login the users will be redirected to their respective home pages according to their roles.

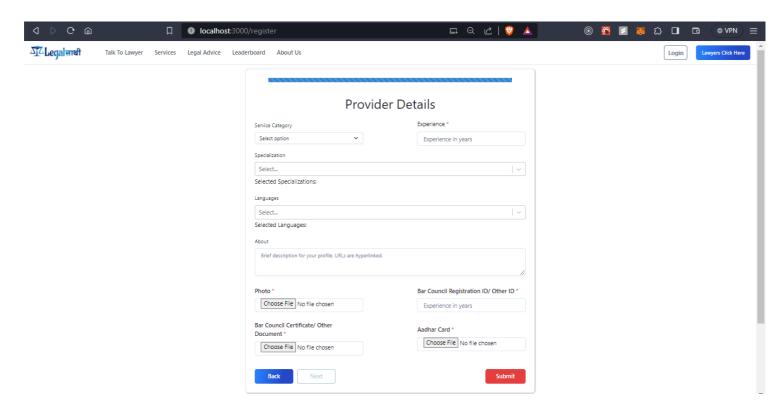


4.4.3 Login Page

The snapshot below shows us how product details will be visible whenever a particular product is selected along with the features to add to cart and select quantity.

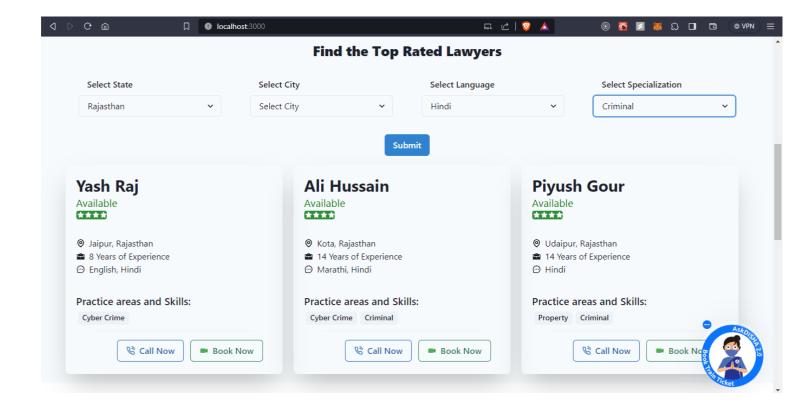


4.4.4 Lawyer Registration Page



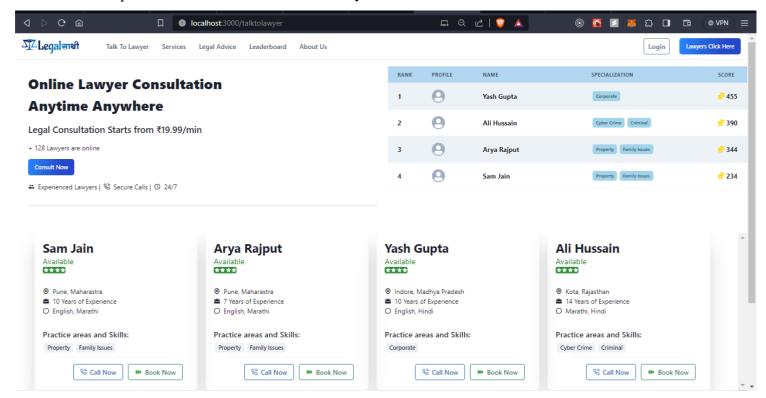
4.4.5 Search Filter

After successful login by the user he/she is provided with search functionalities and the filters that can be applied for better selection of the lawyers. The snapshot below depicts us how this functionality will look.

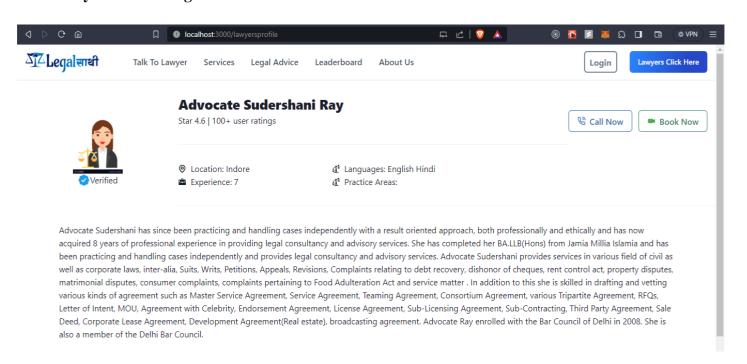


4.4.6 Talk to Lawyer

The snapshot below shows us the talk to lawyer window visible to the user.

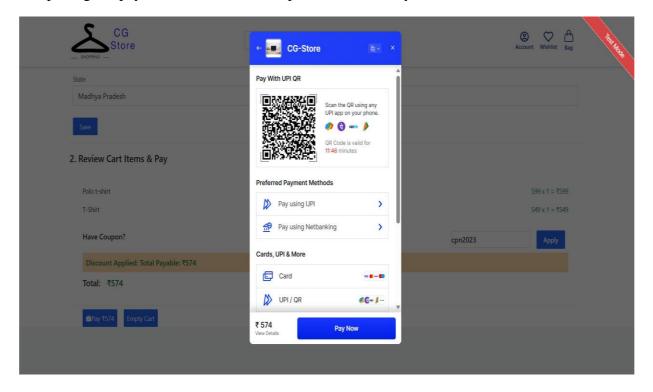


4.4.7 Lawyers Profile Page :

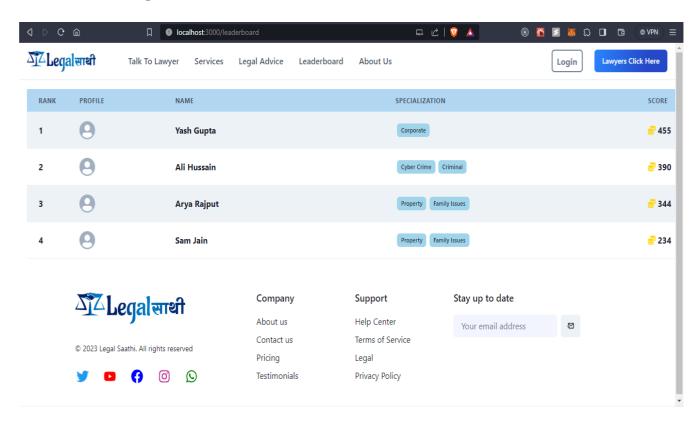


4.4.7 Payment / Booking Page

After successful checkout the user will be redirected to the payment portal where after completing the payment the order will be placed successfully.

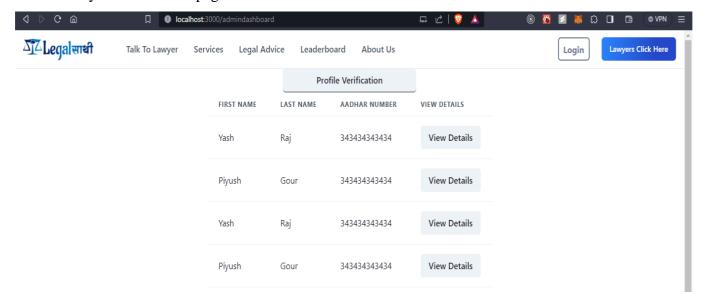


4.4.8 Leaderboard Page



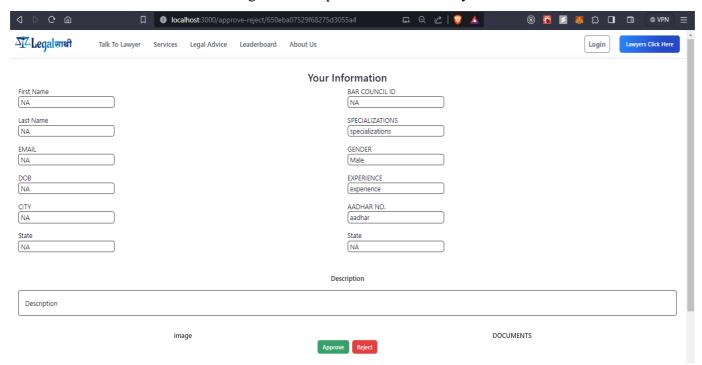
4.4.9 Admin Lawyer List

The user can also add products to his/her wishlist for future references. The snapshot below shows the functionality of the wishlist page.



4.4.10 Admin Approval Page

After successful payment the user has to functionality to download the bill invoice generated in pdf format for future references. The image below depicts this functionality.



Chapter-5 CONCLUSION AND FUTURE SCOPE

5.1 Conclusion

The Legal-Sathi project endeavors to revolutionize the legal service sector in India by providing an innovative e-marketplace that addresses the challenges of an unorganized legal landscape. Through this project, we aim to incentivize legal service providers to join a centralized platform, fostering transparency, accessibility, and quality in legal services. The platform, equipped with user-friendly features and gamification techniques, seeks to create a seamless experience for both service providers and clients.

In conclusion, Legal-Sathi strives to bridge the gap between legal professionals and citizens, ensuring that legal services are easily accessible, accountable, and tailored to diverse socio-economic backgrounds. Through innovation and technology, Legal-Sathi aspires to contribute significantly to the transformation of the legal service landscape, making legal assistance more transparent, efficient, and client-centric.

5.2 Future Scope

- 1. **Multilingual Support:** Introduce language options to cater to a diverse user base, allowing users to access legal services and information in their preferred languages.
- 2. **Integration with Government Systems:** Explore collaborations with government databases to enhance data accuracy, legal compliance, and streamline access to official documentation.
- 3. **Advanced Analytics and Reporting:** Implement analytics tools to analyze user behavior, service provider performance, and legal service trends. Generate reports to help legal service providers enhance their offerings and optimize the platform.

- 4. **Artificial Intelligence for Legal Assistance:** Integrate AI-powered chatbots or virtual legal assistants to provide preliminary legal guidance, answer common queries, and facilitate smoother interactions between service providers and clients.
- 5. **Blockchain for Document Verification:** Leverage blockchain technology to enhance the security and authenticity of legal documents, ensuring a tamper-proof record of transactions and agreements.

Chapter-6 Requirements

This project mainly uses MERN stack (MongoDB, Express.js, React.js, Node.js), HTML5 and Chakra UI. Apart from this we require the following modules for proper functioning of the web application.

- cloudinary (v1.32.0)
- cors (v2.8.5)
- express (v4.18.1)
- jsonwebtoken (v8.5.1)
- mongoose (v6.6.0)
- razorpay (v2.8.3)
- axios (v0.27.2)
- dotenv (v16.0.2)
- firebase (v9.9.4)
- react (v18.2.0)
- react-icons (v4.4.0)
- react-redux (v8.0.2)
- react-responsive-carousel (v3.2.23)
- react-star-ratings (v2.3.0)
- react-toastify (v9.0.8)
- redux (v4.2.0)
- tailwindcss (v3.1.8)

Chapter-7 References

- https://www.youtube.com/watch?v=HVjjoMvutj4&t=18665s&pp=ygUhZnVsb CBzdGFjayB3ZWIgZGV2ZWxvcG1lbnQgY291cnNl
- https://www.youtube.com/watch?v=K4_J3ShsUOY&t=596s&pp=ygU0b25saW5lIGxhd3llciBib29ra W5nIGFwcGxpY2F0aW9uIHByb2plY3QgbWVybiBzdGFjaw%3D%3D
- https://sih.gov.in/sih2023PS?technology_bucket=Nw==&category=QWxs&organization=QWxs&organization_type=QWxs
- https://www.legalkart.com

APPENDIX

HTML: Hypertext Markup Language

• **CSS**: Cascading Stylesheets

• **E-marketplace**: Electronic marketplace

• **GUI**: Graphical User Interface

■ **DB**: Database

■ **MVC**: Model View Controllers