

A
DOMAIN SPECIFIC MINI PROJECT REPORT
ON
“ COURT AT DOOR ”



Submitted To
Shivaji University

In Partial Fulfillment of
T. Y. B. Tech (Computer Science and Engineering)

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CERTIFICATE

This is to certify to following Project group member of T. Y. B. Tech. (Computer Science & Engineering) has satisfactory completed Domain Specific Mini-Project work entitled "Court At Door" to the partial fulfillment of T. Y. B. Tech. (CSE) course as per the rules laid down by Shivaji University, Kolhapur, for Academic year 2023 - 24. This report represents the bonafied work carried out by the following students.

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ABSTRACT

Court at Door, refers to the use of information technology and digital platforms to facilitate various aspects of the judicial process. It involves the integration of technology into the legal system to streamline court proceedings, enhance accessibility, and improve the overall efficiency of the judicial system. Here is a description related to Court at Door:

Court at Door represents a transformative approach to the traditional legal system, leveraging the power of digital innovation to revolutionize how courts operate. In an Court at Door setup, legal processes are conducted through electronic means, encompassing electronic filing of documents, virtual hearings, online case management, and digital communication between stakeholders. This shift towards digitization aims to create a more accessible, transparent, and efficient judicial system.

One of the key features of Court at Door is the electronic filing system, which enables litigants, lawyers, and other participants to submit legal documents and pleadings electronically. This not only reduces the reliance on physical paperwork but also expedites the filing process, leading to quicker resolution of cases.

Reducing the need for physical presence in the courtroom. Facilitates the interaction between lawyers and other parties involved in a case, promoting flexibility and saving time and resources.

These systems may also include electronic databases, making it easier for judges to access relevant information and precedents, thereby enhancing decision-making.

By embracing Court at Door, the legal system aims to overcome geographical barriers, and reduce delays in case resolution. While ensuring the protection of sensitive information through robust cybersecurity measures, Court at Door stands as a testament to the ongoing digital transformation in the legal landscape, promoting a more responsive and modernized judicial system.

CHAPTER-1

INTRODUCTION

1.1 Domain Information:

The Domain on which we are working on is primarily a mixture of data mining and web development. Data mining is defined as a process used to extract usable data from a larger set of any raw data. Data mining goes beyond the search process, as it uses data to evaluate future probabilities and develop actionable analyses. Data mining is most useful in identifying data patterns and deriving useful business insights from those patterns. To accomplish these tasks, data miners use a variety of techniques to generate different results like we have used here classification based on location. Uses of data mining – Whether forecasting, sales, share marketing, healthcare, business and many more. Careers in Data mining are :- Database administrator, Computer and information scientist, market research analyst, computer network architect, information security analyst.

Web development refers to the process of building, creating, and maintaining websites and web applications. It involves various tasks, including web design, front-end development, back-end development, database management, and server configuration, to produce functional and visually appealing online platforms.

1.2 Reasoning and significance of project:

Accessibility: By bringing legal services online, the project makes legal assistance more accessible to a broader range of people, regardless of their location or budget constraints. This addresses a common issue where individuals struggle to find suitable legal representation within their means.

Efficiency: The platform streamlines the process of connecting clients with lawyers based on their specific needs, such as budget and geographical location. This saves time and effort for both parties, as they can quickly find matches without extensive searching or vetting.

Transparency: By providing detailed information about the lawyers' specializations, locations, and case histories, the platform promotes transparency. Clients can make informed decisions when selecting a lawyer, leading to more satisfactory outcomes for both parties.

Convenience: The online platform offers convenience for both clients and lawyers by centralizing all necessary information and interactions in one place. Clients can easily track their cases and communicate with their lawyers, while lawyers can efficiently manage their caseload and respond to client inquiries.

Networking: The project facilitates networking opportunities for lawyers by connecting them with potential clients who match their expertise and preferences. This can help lawyers expand their client base and grow their practices, ultimately benefiting the legal community as a whole.

Overall, the project addresses common challenges in the legal industry by leveraging technology to improve access, efficiency, transparency, and convenience for both clients and lawyers. By providing a user-friendly platform for connecting legal professionals with those in need of their services, the project aims to enhance the delivery of legal assistance and promote fair and equal access to justice.

1.3 Objectives:

- **Website Purpose:** The website, named "court at door," aims to assist clients in finding a lawyer based on their budget and the location where the case will take place.
- The main home page provides two options: client, and advocate.
- Clients can log in or create an account. During account creation, clients provide personal details, contact information, case details (allocation and type), and budget for a lawyer. The search function matches clients with lawyers based on budget and location. Returning clients can access their previous case history and information about recruited lawyers.
- Advocates can log in or create an account. Account creation requires personal details, contact information, speciality, practice location, and a detailed introduction. Upon logging in, advocates can view their current cases, won cases, and the total number of cases handled. Advocates receive requests for information from clients and can accept or reject these requests. Accepted requests are displayed on the client's page.

1.4 Literature Survey:

e-Courts Project: A Giant Leap by Indian Judiciary :- Kshitiz Verma LNMIIT Jaipur

This paper enumerates the efforts made by the Supreme Court of India and proposes a road map of how the existing Information and Communication Technology (ICT) can help Indian judiciary to evolve as more technology driven with increased transparency. The main drive behind the efforts made by the Supreme Court is through e-Courts project. The Government of India has unleashed huge amount of funds to enhance the rate of justice and reduce the piling up of huge number of cases in the courts in India. Various steps have been taken to utilize the power of the Internet to ease the life of the litigant and all the other stakeholders in the process. The efforts are specially targeted to help the poor. The eCourts project has led to scanning, digitization and digital preservation of case records, enabling videoconferencing for courts and jails, etc. A major outcome of the eCourts project is the National Judicial Data Grid (NJDG).

Digitalization - The New Era of Indian Judiciary, Ratnesh Kumar Tiwari, Aman Singh

Justice delayed is justice denied.” But the Indian judiciary is infested with recurrent. Judiciary plays a very important role to deliver justice in any country but if we talk about the judicial system in India then the condition of the judiciary is terrible because in India there are 25 High Courts and many district courts but due to the massive population, a high number of cases are pending in the Indian courts right from the lower court to the Apex court. Because if we see, the Indian court system then we find that all the work is done manually and there is the least use of technology in the court. If we talk about the data then there are three million cases are pending in Indian courts and also 26.3 million cases are pending in lower courts across the country and it is also the lack of the judges. “14.7 judges available to per million people” so that’s why the number of cases increased day by day and it is a burden on our judicial system. And that’s why the cost and inefficiency dealing with the records has up slowly over time and it’s time to think about the technology to bring something new because if we see the efforts of the other agencies like police, jails, accused, witness, pieces of evidence, etc. to bring in the courtroom is very costly and too risky. So, in Indian judiciary is on the use of technology so that manage the case proceeding in the use of the electronic format and this gives a new invention or new idea to the Indian judiciary.

Digital Courts: Future Of The Indian Legal System, Akshat Khetan The journey towards digitalization of India's judicial system started in 2005 with the setting up of the Supreme Court of India's e-Committee. Nearly 18 years later, Phase-II of the e-Courts Project is nearing completion. This Phase has focused on citizen-centric e-services while computerizing 18,735 courts and connecting them with Wide Area Networks.

Development of Online Legal Information System : Lawyers' Perceptions , Raj Kumar Bhardwaj It is very cumbersome and expensive for the common man to get legal information. Therefore, it is imperative that all stakeholders involved in the creation, interpretation, and distribution of law strive to develop a legal information system. Experts in the field have suggested that designers of online information systems ought to use information-seeking models as theoretical lenses to analyse users' behaviour to identify the shortcomings of the existing systems. Majority of practicing lawyers depend on discussions with colleagues as a channel for exchanging information more than external communications with others. However, there is a significant difference in the requirements of practicing and academic legal professionals. Thus, this study strives to understand the differences in perceptions of practicing and academic lawyers in the development of an online legal information system.

CHAPTER-2

PROBLEM DEFINATION

&

SCOPE

2.1 Problem Defination:

The problem definition for an e-court website typically involves identifying the challenges and inefficiencies within the traditional court system that the e-court website aims to address. This may include issues such as lengthy processing times, paperwork overload, difficulty accessing case information, lack of transparency, and inefficient communication between parties involved in legal proceedings. The goal of the e-court website would be to streamline court processes, improve access to justice, enhance transparency, and facilitate communication and collaboration among all stakeholders involved in the legal system.

2.2 Scope:

Developing a mobile application can make the platform more accessible and convenient for users. A mobile app would allow clients and lawyers to engage with the platform on-the-go, facilitating a seamless experience.

Evolving into a comprehensive legal marketplace ecosystem where additional legal services, such as legal document creation, mediation services, or dispute resolution mechanisms, can be offered.

Might include integrating features such as virtual consultations, document automation, or AI-driven legal research tools.

The platform can explore opportunities to expand its services to cover a broader geographic area.

Offering educational resources to users, such as legal guides, FAQs, or informative content about various legal processes, could enhance the overall user experience.

2.3 Software and Hardware Requirements:

2.3.1 Software Requirements:

Database management system (e.g., MySQL, PHP) to store user data, case details, and other information.

User authentication and authorization system to manage login sessions for clients and advocates.

Front-end technologies (e.g., HTML, CSS, JavaScript) for creating user interfaces and interactive elements.

Search functionality to filter lawyers based on budget and location.

2.3.2 Hardware Requirements:

Database server to manage and store data securely.

Sufficient storage space to store user data, case details, and other information.

Reliable internet connection to ensure smooth communication between clients, advocates, and the server.

Client devices (e.g., computers, smartphones, tablets) with web browsers to access the website.

2.4 Functional and Non-functional Requirements:

2.4.1 Functional Requirements :-

1. User Registration and Profile Creation: Users need to fill essential information like it's contact information, email id, full name with some essential inputs like password and username for authentication purposes.

2. Lawyer Registration and Profile Management : Lawyers need to fill essential information like it's contact information, email id, full name with some essential inputs like password and username for authentication purposes.

3. User/Lawyer Authentication: Users/lawyer should be able to register for their own account. Hence, the mandatory process is of logging in just to ensure the legitimate user/lawyer.

4. Searching: Users search for the lawyers based on one's preferences w.r.t. budget and location of the case.

5. Matchmaking: If lawyer accepts the request from client then the pairing of client and lawyer is done. Remember at a time a lawyer can handle more than one case.

6. Contact Sharing: If the client/user sends the request and the lawyer accepts the request then and then only the client gets to access the information of the lawyer.

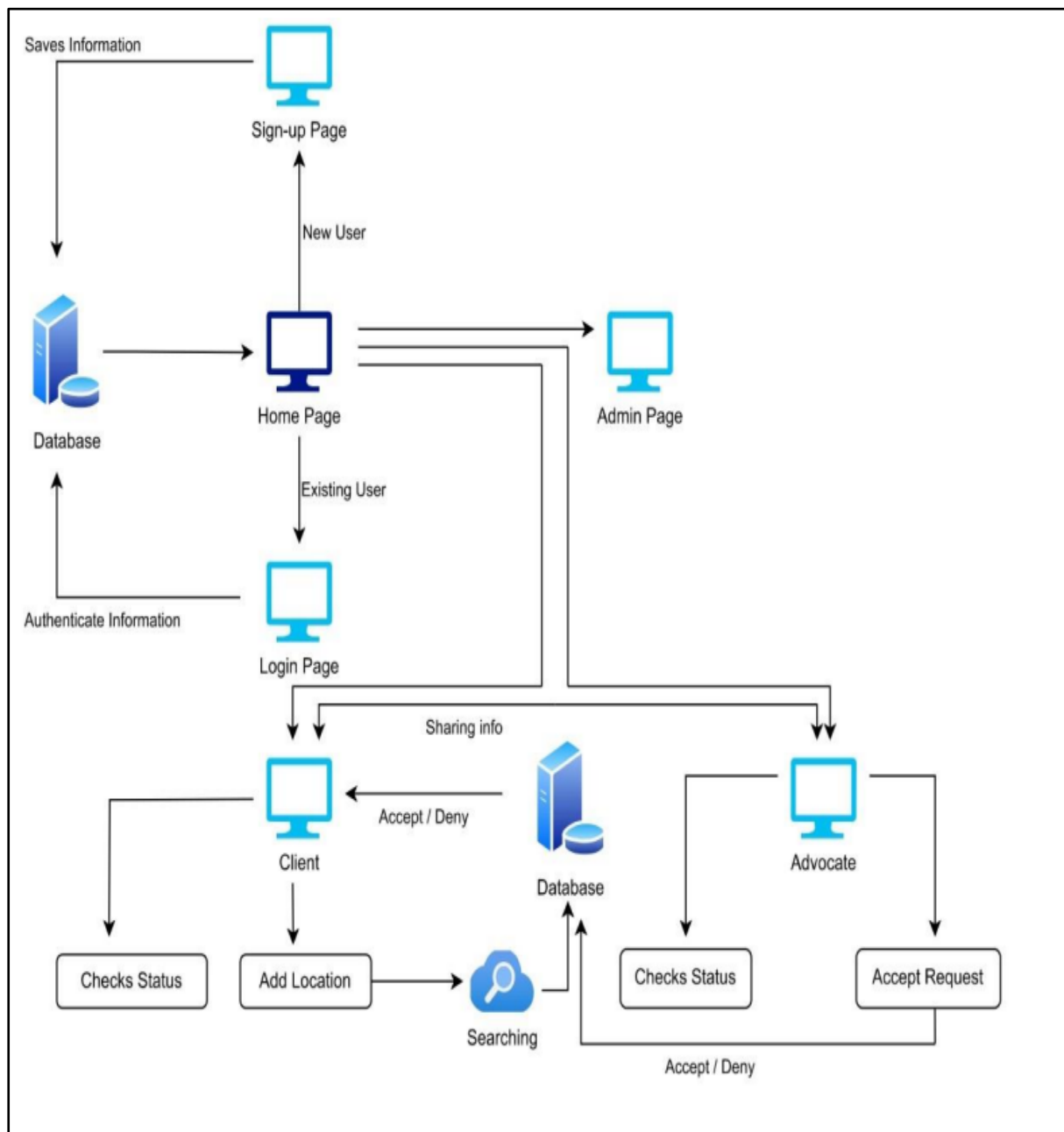
2.4.2 Non-Functional Requirements :-

- 1. Performance:** The website have low latency and respond quickly to user/lawyer interactions.
- 2. Scalability:** The system can be designed to handle an increasing number of users, cases, and advocates if it managed efficiently updating of the database for efficient handling is need to be done regularly.
- 3. Reliability:** The system is reliable and available 24/7 . One can make request or one can accept request as per there schedule . Bothe of them are taken place parallely to each other so you need some patience for receiving the status .
- 4. Usability:** The user interface is intuitive and user-friendly for both clients and advocates. Accessibility standards are followed to ensure usability for all users.
- 5. Data Maintenance :** The data of particular user as well as of lawyer is done at the backed of the system using SQL and for accessing the data easily it is stored in the tables. The main role is to avoid data loss.
- 6. Security:** The system is opened under https protocol which itself is the secure protocol. For the security of the client and the lawyer the contact information are hidden unless and until they match and willing to form a communication with the another party.
- 7. Compliance:** In this system is built following all the rules which include avoiding of publicizing the person's information , privacy policy is maintained , inappropriate use of user's data is avoided by our end.
- 8. Compatibility:** The website is compatible with different browsers and is moldable and manageable.

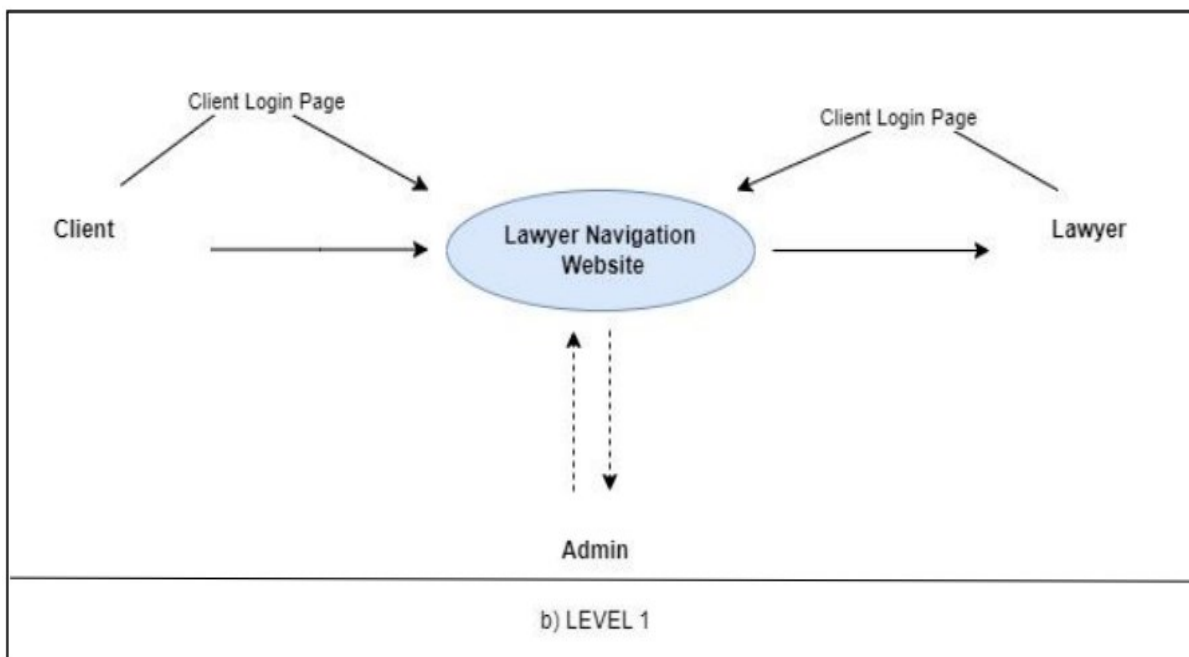
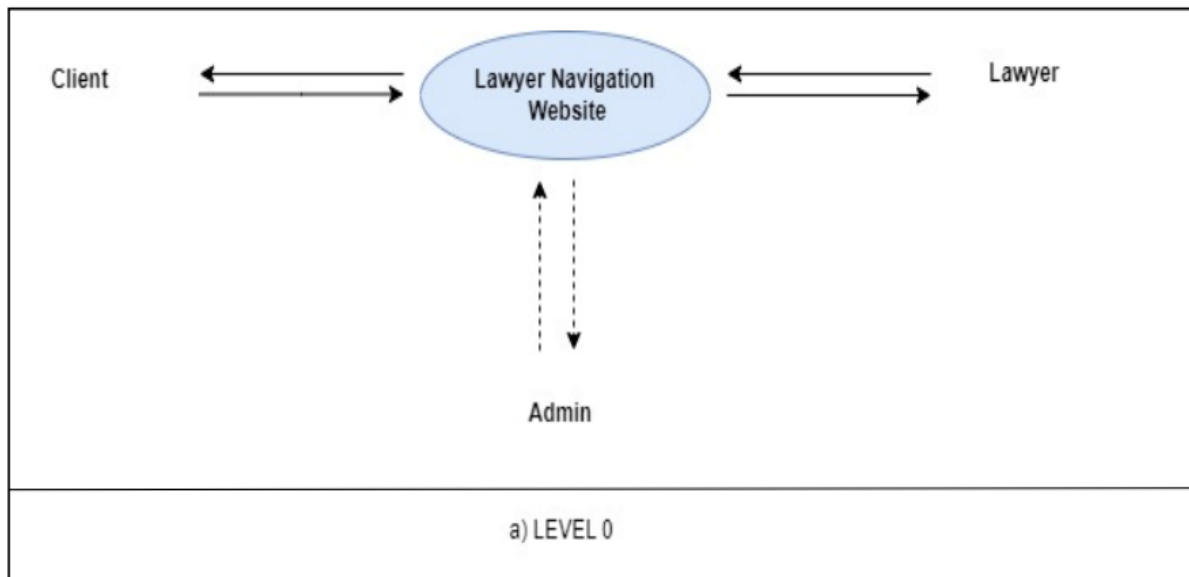
CHAPTER-3

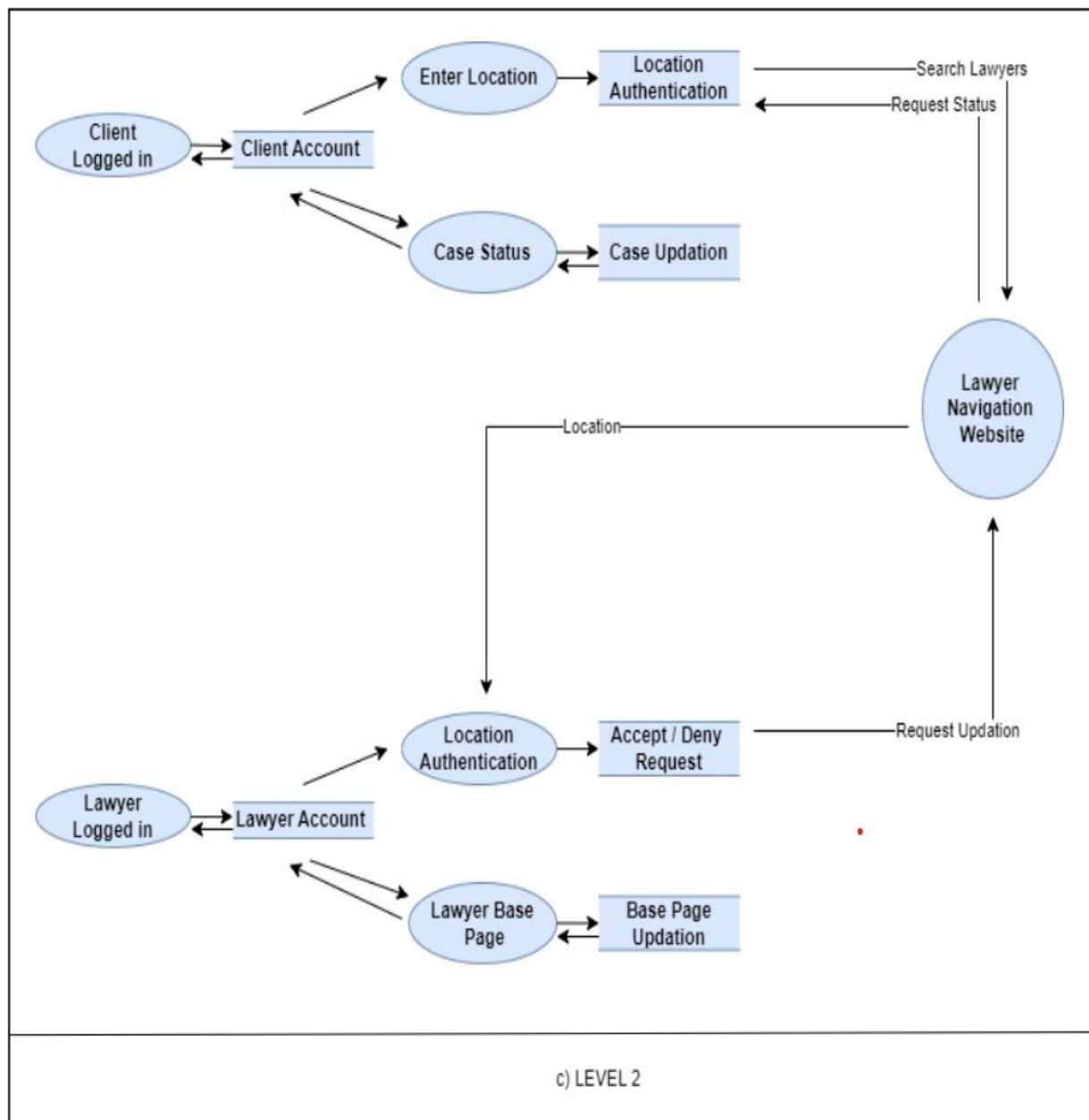
DESIGN

3.1 System Architecture:

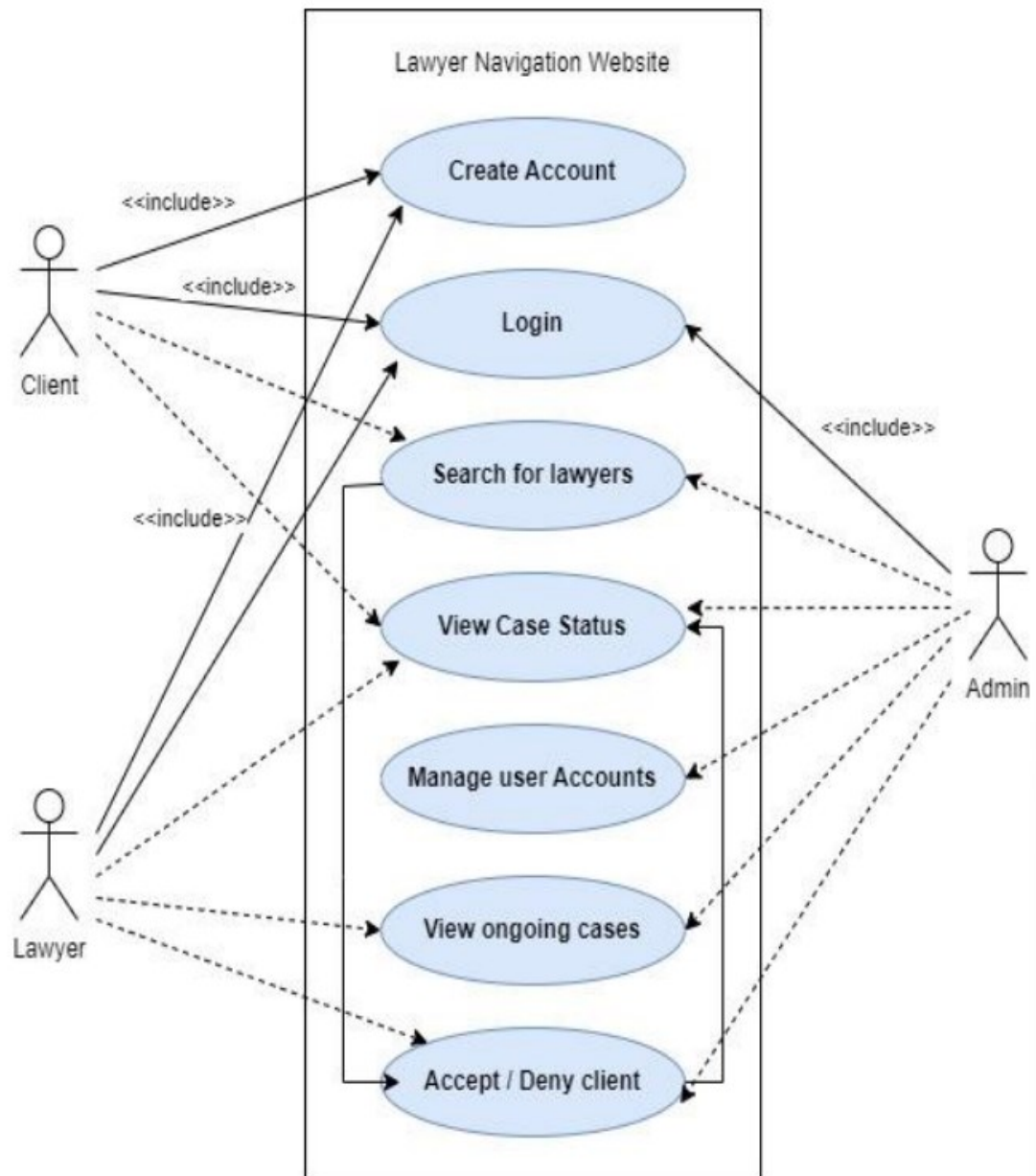


3.2 Data Flow Diagram:





3.3 Usecase Diagram:



CHAPTER-4

IMPLEMENTATION AND TESTING

4.1 Implementation Details

4.1.1 Module 1 – Admin Dashboard Module: Provides an administrative interface for managing users, lawyers and other system settings.

4.1.2 Module 2 – User Management Module: This module handles user registration, login, profile management, and authentication functionalities.

4.1.3 Module 3 - Lawyer Database Module: A database module to store information about lawyers, including their specialization, contact details, and availability.

4.1.4 Module 4 - Search Module: This module enables users to search for lawyers based on various criteria such as location, practice area, expertise. It should also provide personalized recommendations based on user preferences and past interactions.

4.2 Testing Strategy:

User Experience Testing: Ensure the website is easy to navigate and understand for potential clients. Conduct usability testing to identify any usability issues and make necessary improvements.

Compatibility Testing: Test the website across different devices (desktops, laptops, tablets, smartphones) and browser (Chrome) to ensure it functions correctly and looks good on all platforms.

Security Testing: Conduct security testing to identify and address any vulnerabilities that could compromise the confidentiality or integrity of client information. This includes testing for SSL/TLS encryption, secure authentication mechanisms, and protection against common web security threats like SQL injection and cross-site scripting (XSS).

Content Testing: Review all website content, including text, images, and videos, for accuracy, relevance, and readability. Ensure that legal disclaimers and privacy policies are prominently displayed and up-to-date.

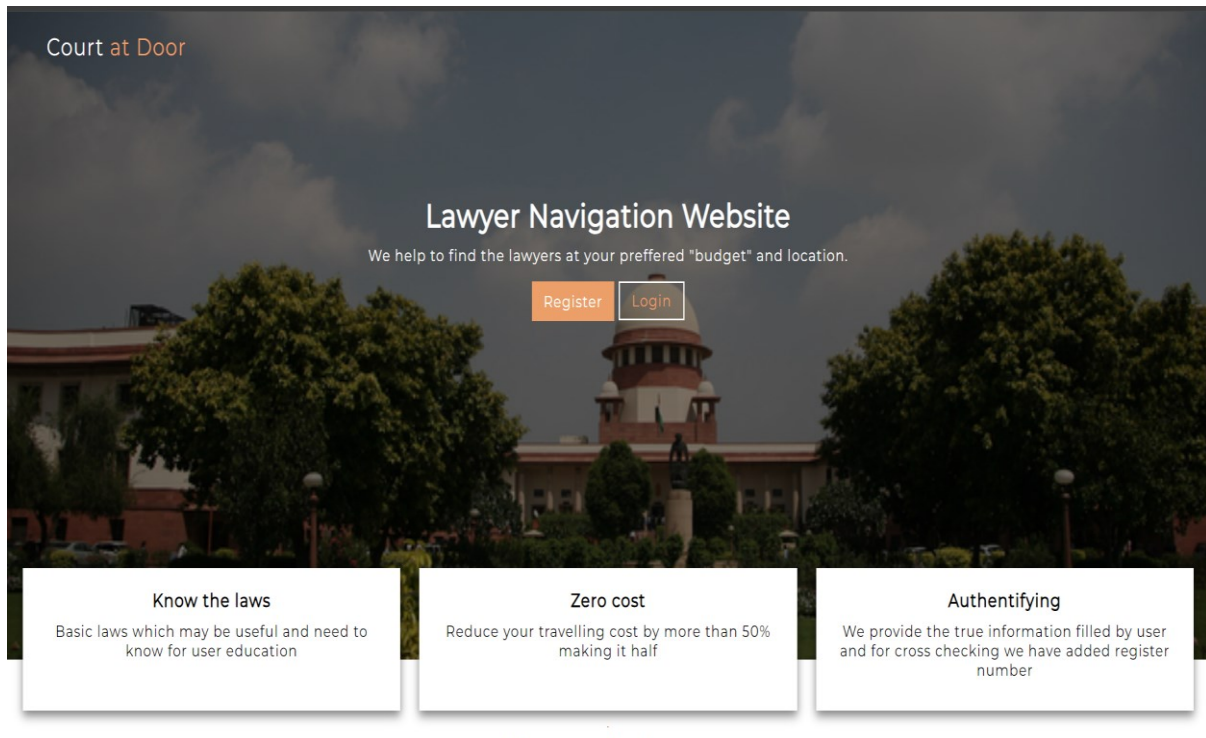
Search Engine Optimization (SEO) Tools: Modules to optimize your website's visibility on search engines, ensuring potential clients can find your firm online.

CHAPTER-5

DEPLOYMENT

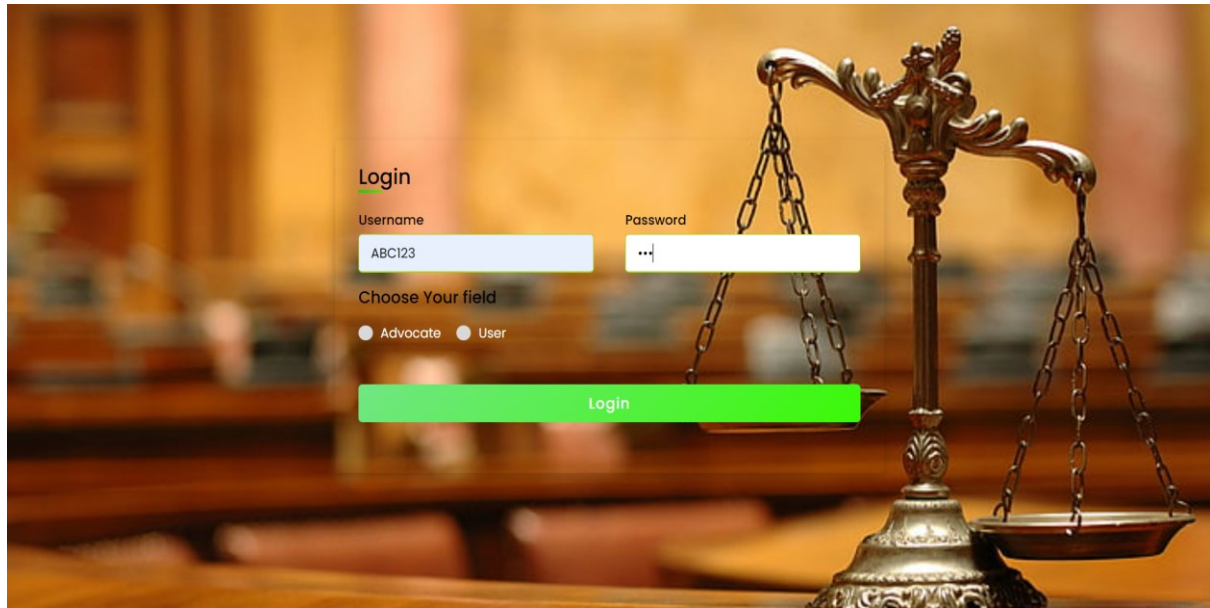
5.1 Result and Application:

5.1.1 Homepage : It has two buttons on it . One for new users i.e., ‘register’ and the other for the existing users i.e, ‘login’. It also shows the benefits of using website and some general laws.

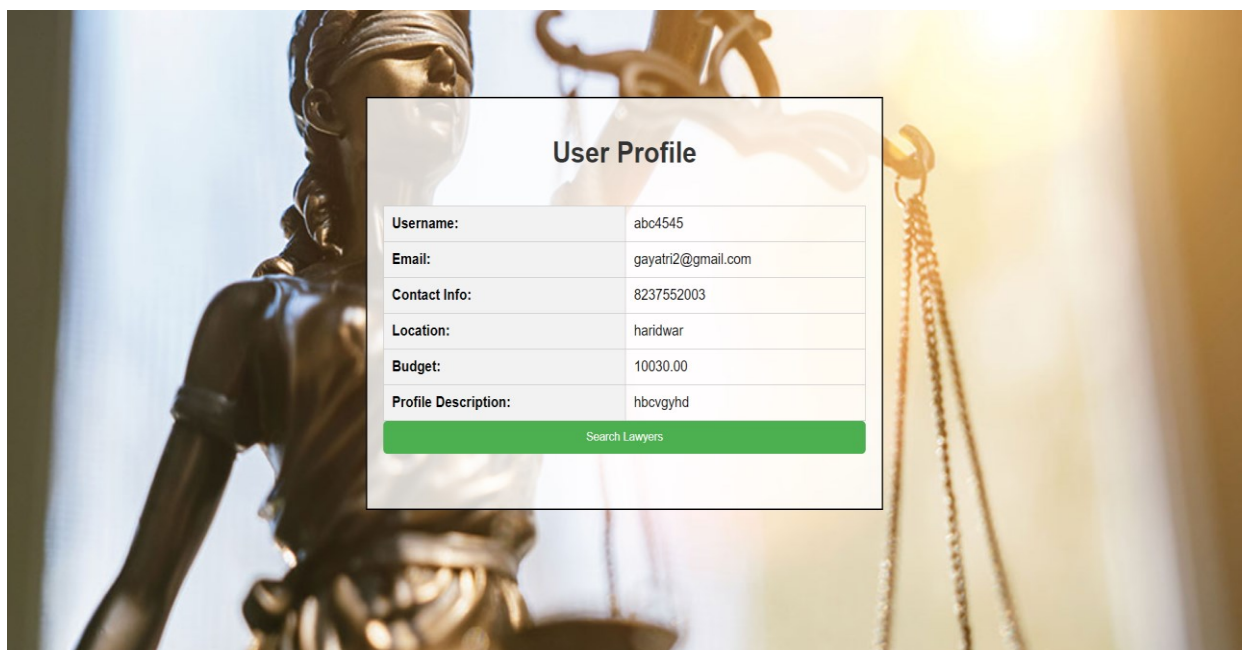


5.1.2 Registration and Login Pages : Asks for essential information from the person which will be displayed later in profile page.

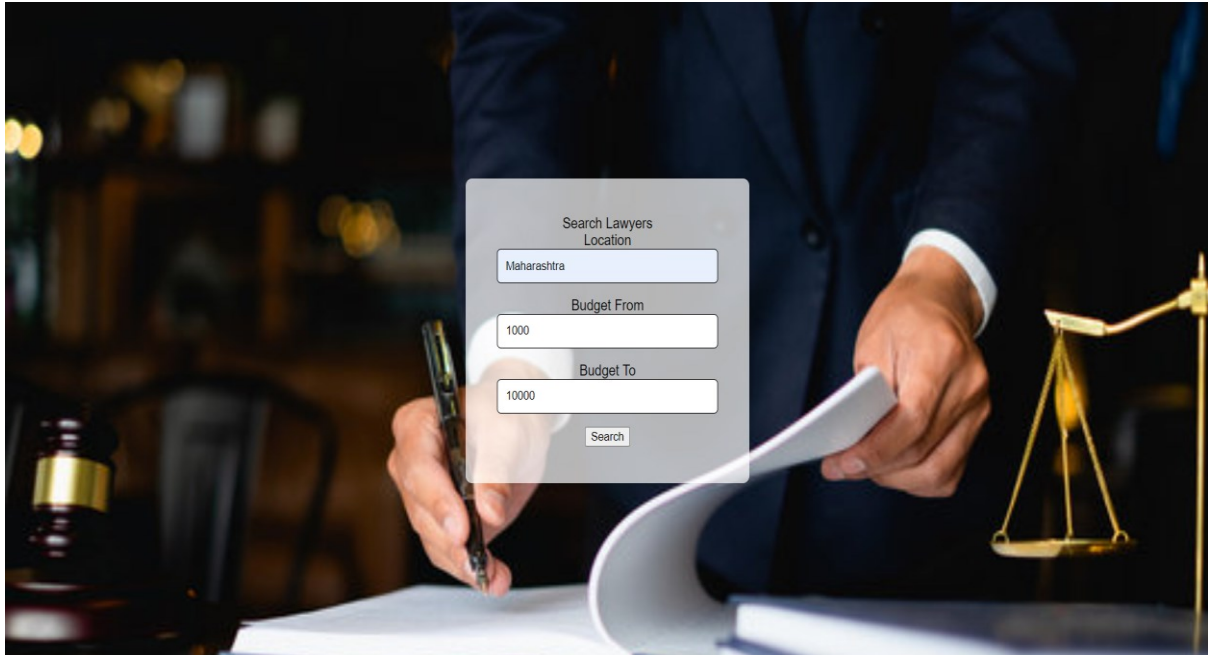
The screenshot shows a registration form titled "Registration" overlaid on a background image of a golden scale of justice. The form fields are: Username (ABC123), Email (ABC123@gmail.com), Phone Number (9934567890), Password (masked with three dots), Choose File (Choose File | No file chosen), Location (Maharashtra), Budget (12000), and Profile Description (His, My name is ABC I am an Advocate). At the bottom, there are radio buttons for "Advocate" (selected) and "User", and a large green "Register" button.



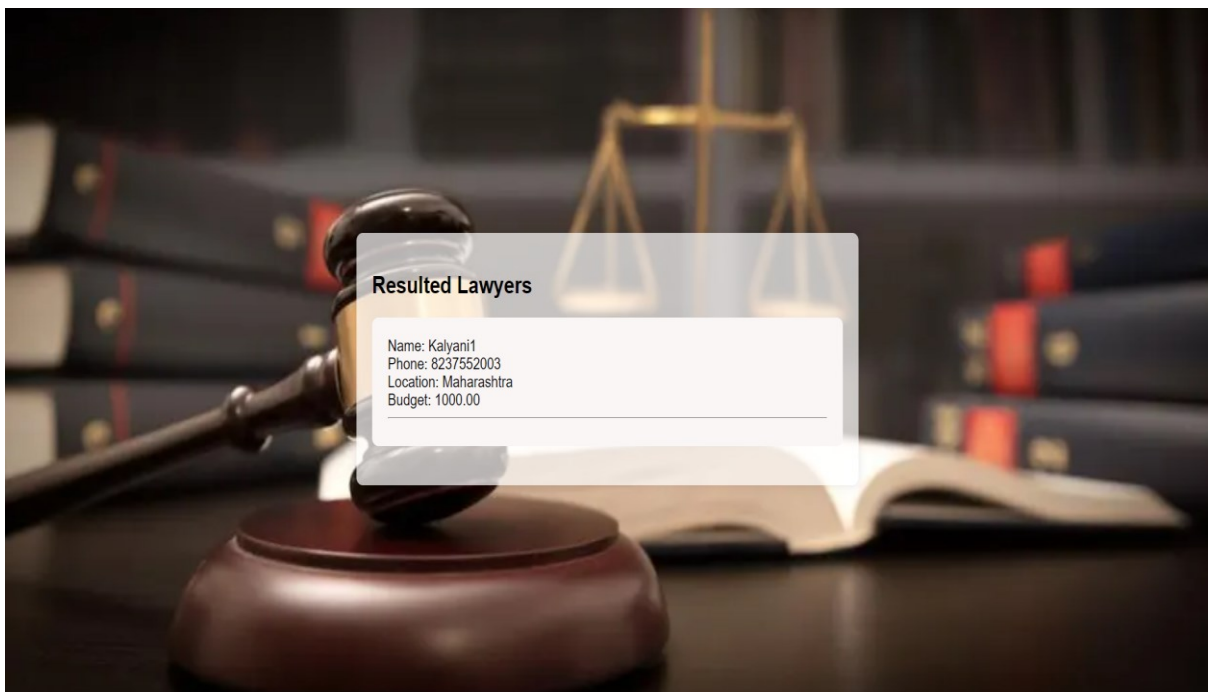
5.1.3 Profile page : It displays all the information taken during registration. The profile page for user and for advocate is same . But the additional feature for user is button ‘search lawyer’,



5.1.4 Search Lawyer : This page asks for location and the budget of the user to hier the lawyer according to it , it displays the list of lawyers.



5.1.5 Results Page :The lawyer who fits under the category of the user is shown on this page along with it's contact information such that the user can contact the user using it.



5.1.6 Applications

The website can find applications in various real-world scenarios, including:

1. Legal Consultation Platforms: Providing a platform for users to search and connect with lawyers for legal advice and consultation.
2. Remote Legal Assistance: Enabling users to access legal services remotely,
3. Legal Tech Solutions: Integrating with other legal tech solutions to enhance the overall legal service ecosystem, providing value-added services such as case management or document preparation.
4. Small Business Legal Support: Assisting small businesses in finding legal counsel for matters such as contract drafting, intellectual property protection, or regulatory compliance.

5.2 Conclusion:

Our website fills a crucial gap left by eCourtServices, the government app for court-related tasks, by offering a dedicated platform for searching lawyers, a functionality absent in the former. By providing users with the ability to access legal services remotely, our website significantly reduces the need for physical travel, thereby cutting down on associated expenses. Moreover, it eliminates the inefficiencies of traditional lawyer search methods, streamlining the process and saving users valuable time. This initiative not only addresses the limitations of existing state applications but also exemplifies a modern approach to accessing legal assistance, enhancing convenience and accessibility for users seeking legal representation.

5.3 Future Enhancement:

The website holds promising potential for future expansion and enhancement. Some avenues for future development and growth include:

1. **Feature Diversification** : Introducing new features such as advanced search filters, real-time chat support with lawyers, appointment scheduling, and document sharing capabilities to enrich the user experience and provide comprehensive legal assistance.
2. **Geographical Expansion** : Scaling the platform to serve users across different regions or countries by partnering with legal professionals globally, thereby broadening the reach and accessibility of legal services.
3. **Mobile Application Development** : Developing a dedicated mobile application for the website to cater to the growing trend of mobile usage, enabling users to access legal services conveniently on their smartphones or tablets.
4. **Data Analytics and Personalization** : Leveraging data analytics to gain insights into user behavior, preferences, and trends, enabling personalized recommendations, targeted marketing campaigns, and continuous improvement of services based on user feedback.
5. **Compliance and Security Enhancements** : Prioritizing data security and compliance with legal regulations such as GDPR (General Data Protection Regulation) or HIPAA (Health Insurance Portability and Accountability Act) to build trust and confidence among users regarding the privacy and confidentiality of their information.

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- 6. Digitalization - The New Era of Indian Judiciary, Ratnesh Kumar Tiwari, Aman Singh** Justice delayed is justice denied.” in Indian judiciary is on the use of technology so that manage the case proceeding in the use of the electronic format and this gives a new invention or new idea to the Indian judiciary.