WOMEN LEGAL ADVOCATE FINDER APP

A Project report submitted in partial fulfillment

for the award of the degree of

MASTER OF COMPUTER APPLICATIONS

(2023-2025)

Submitted by

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Under the esteemed guidance of

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CERTIFICATE

This is to certify that the project report entitled "**WOMEN LEGAL ADVOCATE FINDER APP**" is the bonafide work done by me **K. GAYATHRI, REGD.NO-23G21F0024** in partial fulfillment of the requirements for the award of the degree of **Master of Computer Applications,** from Jawaharlal Nehru Technological University Ananthapuramu, during the year 2023-2025.

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Internal Examiner **External Examiner**

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DECLARATION

I, Ms. K. GAYATHRI, Regd.**No.23G21F0024,** here by declare that the project work entitled "**WOMEN LEGAL ADVOCATE FINDER APP**" done by us under the esteemed guidance of Assistant Professor **Ms. V. SAVITRI** and is submitted in partial fulfillment of the requirements for the award of the Master's degree in **Computer Applications.**

Date:

Place:

Signature of the Candidate

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(23G21F0024)

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ABSTRACT

Today, we're highlighting a key issue that most women experience: the difficulty of getting through the legal process. It's not a secret that women tend to suffer because they lack access to legal aid. That's why our brand-new application, the Women Legal Advocate Finder App, is so crucial. Using this mighty tool, we seek to portray and tackle the issues of women who need legal aid-the new game changer for women who need legal aid. Our groundbreaking system offers a space where women can simply find and link up with the best advocates for their particular cases. This app also enables women to share their legal issues so that any advocate can provide help. With the Women Legal Advocate Finder App, getting the appropriate legal assistance has never been simpler.

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1. INTRODUCTION

Introducing the Women Legal Advocate Finder App: Empowering Women through Android and Web Applications In today's fast-paced world, it is crucial to have easy access to legal assistance, especially for women who often face unique challenges. To address this need, we are proud to introduce the Women Legal Advocate Finder App, a powerful tool that aims to empower women by providing easy access to legal aid through both Android and web applications.

Navigating the legal system can be complex and daunting, and women facing legal issues may often feel overwhelmed and uncertain about where to turn for help. This is where our innovative app comes in. By leveraging the power of technology, we have created a user-friendly platform that connects women with legal professionals who specialize in advocating for women's rights.

With the Women Legal Advocate Finder App, finding the right legal assistance has never been easier. Through Android and web applications, users can search for legal advocates based on their specific needs and geographical location. Whether it's a case of domestic violence, discrimination, or any other legal matter, our app ensures that women can easily find the support they need, when they need it the most.

One of the key features of our app is its extensive database of legal advocates. Through meticulous project and collaboration with reputable legal organizations, we have curated a comprehensive directory of highly qualified lawyers and legal professionals who have demonstrated a deep commitment to supporting women's rights. This means that users can trust the reliability and expertise of the legal advocates they find through our app.

In addition to connecting women with legal advocates, our app also provides a platform for users to access valuable legal resources. We understand that knowledge is power, and by equipping women with the right information, we aim to empower them to make informed decisions regarding their legal issues. Users can access articles, guides, and other educational materials, ensuring that they are well informed about their rights and the legal processes involved.

The Women Legal Advocate Finder App is designed with user convenience in mind. The intuitive interface and smooth navigation make it easy for users to search for legal assistance and

access the resources they need. Whether you are on the go or at home, the app is accessible anytime, anywhere, ensuring that help is always just a few taps away.

Furthermore, our app respects the user's confidentiality. We understand the sensitive nature of legal issues, and privacy is the most importance to us. Users can be assured that their personal information and legal matters will be handled with the highest level of security and privacies.

The Women Legal Advocate Finder App is more than just a digital platform; it's a movement dedicated to leveling the legal playing field for women. As we delve deeper into its features and functionalities, we invite you to join us in our commitment to break the barriers to justice, empower women to stand strong and advocate for a world where justice and equality prevail, regardless of gender. This application represents a significant stride towards a brighter and more equitable future for all women.

1.1 OBJECTIVES

Women Legal Advocate Finder App is its user-friendly interface, making it easy for women to search for advocates based on their location, expertise, and availability. Gone are the days of flipping through the yellow pages or spending hours searching the internet for the right legal representation. With just a few taps on their smartphones or clicks on their computers, women can now find a list of advocates who are ready to support them in their legal. The convenience and ease of using objectives will change the way you approach your daily tasks.

1.2 SYSTEM REQUIREMENTS

SOFTWARE REQUIREMENTS

- Front End : HTML5, CSS3, Bootstrap
- Back End : PHP 8.1, MYSQL
- Control End : Angular Java Script

HARDWARE REQUIREMENTS

- Processor : Intel 5
- Installed memory (RAM) : 4 GB
- Hard Disk : 500 GB
- Operating System : Windows
- PHP TOOLS : xampp – win64 – 8.1

2. LITERATURE REVIEW

Artificial Intelligence System for Advocate Support

India witnessed it through the Digital Revolution some years back; however, technology has never so profoundly changed other areas of society. This project is important because if legal research is poor, the implications of AI & Edge Devices to support Advocates as legal rights which directly useful to the legal phenomenon. By applying automation in lower courts, the judiciary can perhaps overcome some of the significant challenges brought along by arrears, caseloads, delays, client interaction, etc. Although: there are various aspects to such issues, enhanced performance, consistency, clarity, & speed which future innovations of Industry 4.0 can provide could considerably improve and ease issues to bring back this issue Edge Devices can help support, this artificial intelligence-based device is a creative one which is linked to the database. In the office of the Advocate, the client approaches the Office this system speaks to the client & hears the entire facts and circumstances of the case & this device informs the concerned Act which would be applicable in the corresponding case and also gives a printed copy This project represents the effect, result emerging out of the device is effective and how this device operates under the legal system.

Analysis of Women's Safety Parameters in Smart and Non-Smart Cities

The modern era is driven by Information and Communication Technology (ICT), significantly influencing urban development. As societal and industrial demands continue to rise, cities are evolving, aiming to improve the quality of life by adopting smart city initiatives. Governments and private sectors are actively transforming conventional cities into smart cities by incorporating essential parameters such as technology, safety, privacy, education, crime control, health, social and economic development, traffic management, and sustainability.

While smart cities offer enhanced security and modern facilities, the safety of women remains a pressing concern. Crimes against women, including harassment, assault, molestation, and domestic violence, continue to persist, irrespective of whether a city is smart or non-smart. Despite numerous laws and preventive measures, the increasing rate of such offenses indicates that current efforts have not yielded the desired impact. Although India has embraced

digitalization, many women are reluctant to use security measures that could assist them in emergencies.

Smart cities integrate advanced technologies such as enterprise LTE (4G/5G networks), IoT-enabled surveillance, and secure broadband connectivity, yet these measures have not significantly curbed crimes against women. The government has introduced various devices and applications to enhance security, but there remains a need for a more efficient system utilizing advanced technologies like Machine Learning and Data Science.

This project explores and compares the safety parameters of smart and non-smart cities, evaluating the effectiveness of existing safety measures for women. It highlights the urgent need for a technologically driven and holistic approach to ensure a safer environment for women, irrespective of the city type.

Methods for information retrieval in legal documents

Since the crimes are escalating at an alarming rate, there is a need to grant justice to the victims easily. In reaching the final conclusion, lawyers have to read numerous earlier judgments to utilize them as references for their research. The judicial process can be accelerated enormously by cutting the research time down. The time taken primarily occurs in two places - finding the correct document and comprehending that document. First of all, having access to the right judgments or other legal documents is the most fundamental job for any legal expert, particularly lawyers. After getting hold of a document, the second most critical and unavoidable job is reading and re-reading it and arriving at needed as well as requisite conclusions based on a thorough examination. To eliminate the first issue, efficient searching can be solved through an appropriate search system providing search facilities on the basis of various views.

This system is an attempt at enhancing user search by making the users available search options on the basis of either the semantic meaning of the word or based on the sections of the IPC. It should be necessary for laymen to access all related judgments by just entering a single keyword or sentence without worrying about the legal terminologies. After document retrieval, the long text has to be analyzed for reasonable inferences.

To cut down on reading time for the texts, we plan to provide the information in the judgments in a visual format using semantic networks. Lawyers will be helped by this system

since it will allow them to bypass the intricacies of the sometimes word language of the legal texts. This IR System offers the functionality of semantic and IPC section-based search to users based on information derived from semantic networks representative of the documents in order to establish a more efficient system of search on legal documents.

Challenges of Cybercrimes to Implementation of Legal Framework

With the advancing technology there is a new generation of crimes that is able to traverse geographical boundaries. Legal reforms and regulatory authorities lack much ability to regulate these crimes. Pakistan as a developing nation, is committed to adopting legal and regulatory guidelines to regulate cyber terrorism. With the arrival of 4G technology, individuals from Pakistan are entering into online business and social media entertainment or communication, with increasing frequency of cybercrimes daily.

The necessity of eradicating cybercrime risk entirely becomes even more vital. This project is based on the subjects who were either part of victimization by cybercrimes or were able to recognize some of the measures for halting cyber terrorism. The reasons are ignorance regarding cybercrimes, unemployment, illiteracy, and lesser enforcement of cyber laws.

The impact of cybercrimes on society is lowering the individual development of individuals both ethical and financial, wastage of time, and misrepresentation of the image of the country. It also involves financial losses to big businesses. This study also concentrates on the awareness in terms of offenses to regulate cybercrimes in Pakistan in relation to legal reforms and cyber laws. The cyber act is the prevention of electronic crime act 2016. There is a great need to enhance social campaigns and against cybercrimes. Individuals should use strong security measures to avoid being targeted by cyber thieves.

2.1 EXISTING SYSTEM

In the absence of the Women Legal Advocate Finder App, the existing system typically involves traditional methods for seeking legal assistance, both for women and advocates:

1. **For Users (Women Seeking Legal Assistance):**

- Users typically rely on word-of-mouth referrals, recommendations from friends or family, or general online searches to find legal advocates.

- Finding specialized advocates can be challenging, and users might not have access to a wide range of options.
- Communication with potential advocates is primarily through phone calls or in-person visits, making the process time-consuming and less convenient.

2. **For Advocates:**

- Advocates often rely on traditional marketing methods, such as law firm websites or referrals, to attract clients.
- They may not have a centralized platform to reach out to potential clients, especially those who are facing specific women's legal issues.
- The process of verifying the legitimacy of clients can be cumbersome and time-consuming.

Disadvantages of Existing System

- **Reliance on technology:** The app relies heavily on technology, which can be a drawback for those who are not comfortable or familiar with using Android devices or web applications. This may limit access for some women who do not have the necessary means or technological literacy.
- **Limited geographical coverage:** The app's effectiveness may be limited to specific regions or countries. It may not have an extensive database of legal advocates in certain areas, making it less useful for women in those regions.
- **Dependence on user reviews:** The app's success relies on user-generated reviews and ratings. While this can provide helpful insights, it also leaves room for potential biases or inaccurate information, which may affect the reliability of the advocate search results.
- **Privacy concerns:** Using the app requires sharing personal information, which may raise privacy concerns for some users. Although efforts are made to ensure data security, there is always a risk of data breaches or unauthorized access.

2.2 PROPOSED SYSTEM

The "Women Legal Advocate Finder App" introduces a modern, efficient, and user-friendly platform for connecting women in need of legal assistance with qualified advocates. Here's an overview of the proposed system:

1. **For Users (Women Seeking Legal Assistance):**

- Users can easily register on the app and create accounts, providing their details and legal issues.
- They can search for advocates based on various criteria, such as specialization and location, making it easier to find the right legal support.
- Users can post their legal problems, including specific details, and receive assistance from qualified advocates.
- Communication with advocates is streamlined through in-app messaging, enhancing convenience and security.
- Users can receive help requests from advocates and choose the most suitable advocate for their case.

2. **For Advocates:**

- Advocates can register on the platform, create detailed profiles, and showcase their qualifications and expertise.
- Admin verify advocate profiles to ensure legitimacy and trustworthiness.
- Advocates can search for women's legal problems posted by users and offer assistance, including sending help requests.
- The app provides tools for advocates to manage their profiles, track interactions, and potentially offer paid legal services.
- Reviews and ratings from users help advocates build a positive reputation on the platform.

3. **For Admin:**

- Admin have access to a secure admin panel where they can log in and manage the platform.
- They can review and approve advocate profiles, ensuring that only qualified advocates are listed.
- Admin can view user details and monitor platform activity to maintain a safe and efficient environment.

In summary, the proposed system revolutionizes the way women seek legal assistance and how advocates connect with potential clients. It provides a centralized, secure, and user-

friendly platform that addresses the challenges of navigating the legal process for women, ultimately making it easier for them to access legal support while offering advocates a platform to expand their reach and provide assistance effectively.

Advantages of Proposed System

- **Accessibility:** The app allows women to easily access legal assistance and find advocates through their Android devices or web browsers. This convenience ensures that support is readily available whenever it is needed.
- **Time-saving:** By using this app, women can save time spent on searching for legal assistance. The app provides a comprehensive database of advocates, making it quick and efficient to find the right professional for their specific needs.
- **Increased options:** The app offers a wide range of legal advocates, allowing women to choose from a diverse pool of professionals. This ensures that they can find someone who specializes in their particular legal issue and aligns with their personal preferences.

3. OVERALL DESCRIPTION OF THE PROPOSED SYSTEM

SYSTEM MODULES

Admin:

- Login
- Approve Advocate Profile
- View User Details

Advocate:

- Register
- Login
- Create Profile
- Update/Delete Profile
- Search women problem
- My Profile

User:

- Register
- Login
- Search Advocate
- Search City, area wise
- Post Problem
- Update/Delete Problem
- My Profile

3.1 MODULE DESCRIPTION

The system after careful analysis has been identified to be presented with the following modules Advocate, Administrator and User.

Admin:

1. Login:
    - This module allows the admin to log in securely to access the admin panel and perform administrative tasks.
2. Approve Advocate Profile:
    - Admin can review and approve advocate profiles after verifying their credentials to ensure the legitimacy of advocates on the platform.
3. View User Details:
    - This module enables the admin to view user details, helping to manage and monitor user activity on the platform.

Advocate

1. Register:
    - Advocates can create accounts by providing necessary information and credentials to join the platform.
2. Login:
    - Advocates can log in securely to access their accounts and provide their legal services.

3. Create Profile:
    - Advocates can create and update their profiles, including qualifications, areas of expertise, and contact information.
4. Update/Delete Profile:
    - This module allows advocates to edit or remove their profiles as needed.
5. Search Women Problem:
    - Advocates can search for women's legal problems posted by users and offer assistance. This includes sending help requests.

6. My Profile:

- Users can manage their profiles, update personal information, and view their interaction history on the platform.

User

1. Register:

- Users can register on the platform by providing their details, creating an account to seek legal assistance.

2. Login:

- Users can log in securely to access their accounts and post legal issues or search for advocates.

3. Search Advocate:

- Users can search for advocates based on various criteria, such as specialization or location.

4. Search City, Area Wise:

- Users can narrow down their search for advocates by specifying city or area preferences.

5. Post Problem:

- Users can post their legal problems, providing details to seek assistance from advocates.

6. Update/Delete Problem:

- Users can edit or remove their posted problems as needed.

7. My Profile:

- Users can manage their profiles, update personal information, and view their interaction history on the platform.

4. DESIGN

Design is the first step in the development phase for any techniques and principles for the purpose of defining a device, a process or system in sufficient detail to permit its physical realization.

Once the software requirements have been analyzed and specified the software design involves three technical activities - design, coding, implementation and testing that are required to build and verify the software.

The design activities are of main importance in this phase, because in this activity, decisions ultimately affecting the success of the software implementation and its ease of maintenance are made. These decisions have the final bearing upon reliability and maintainability of the system. Design is the only way to accurately translate the customer's requirements into finished software or a system.

Design is the place where quality is fostered in development. Software design is a process through which requirements are translated into a representation of software. Software design is conducted in two steps. Preliminary design is concerned with the transformation of requirements into data.

4.1 UML DIAGRAMS

UML stands for Unified Modeling Language. UML is a language for specifying, visualizing and documenting the system. This is the step while developing any product after analysis. The goal from this is to produce a model of the entities involved in the project which later need to be built. The representation of the entities that are to be used in the product being developed need to be designed.

There are various kinds of methods in software design:

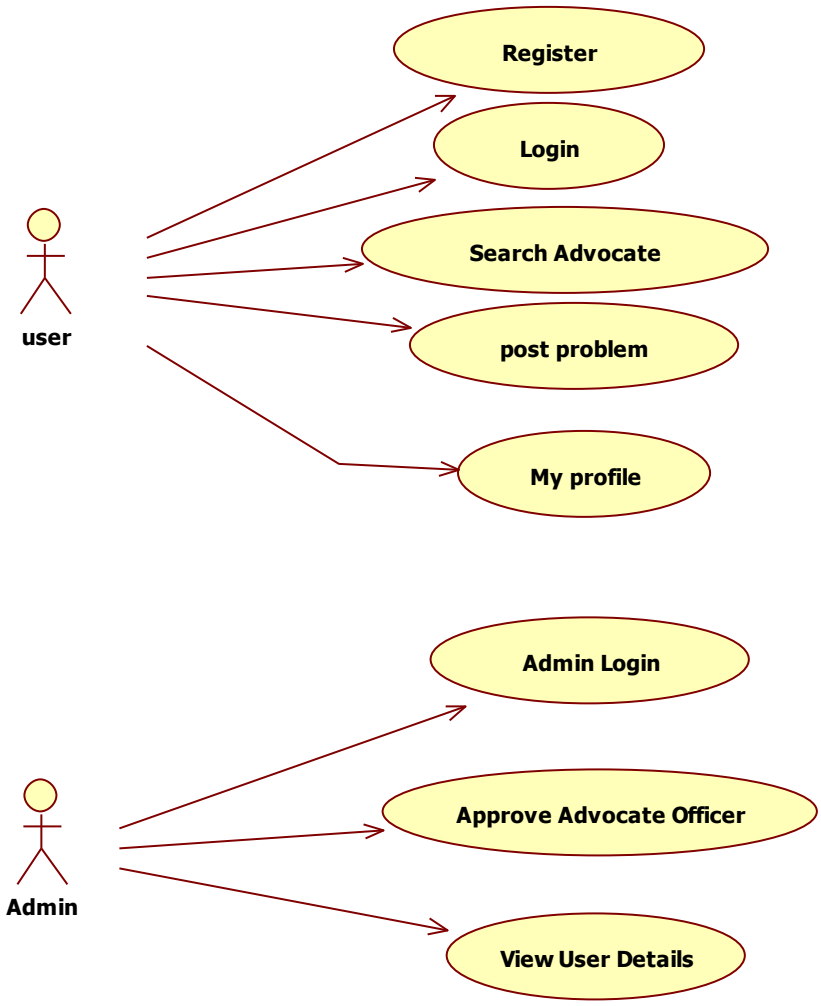
- Use case Diagram
- Sequence Diagram
- Collaboration Diagram

4.1.1 USECASE DIAGRAMS

Use case diagrams model behavior within a system and helps the developers understand of what the user require. The stick man represents what's called an actor. Use case diagram can be useful for getting an overall view of the system and clarifying that can do and more importantly what they can't do.

Use case diagram consists of use cases and actors and shows the interaction between the use case and actors.

- The purpose is to show the interactions between the use case and actor.
- To represent the system requirements from user's perspective.
- An actor could be the end-user of the system or an external system.



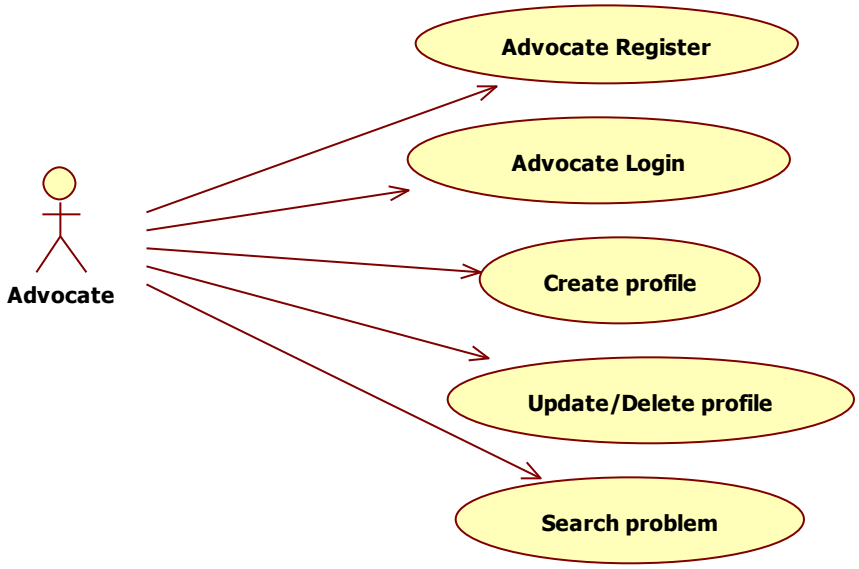


Fig: Use Case Diagrams

4.1.2 SEQUENCE DIAGRAM

Sequence diagram and collaboration diagram are called INTERACTION DIAGRAMS. An interaction diagram shows an interaction, consisting of set of objects and their relationship including the messages that may be dispatched among them.

A sequence diagram is an introduction that empathizes the time ordering of messages. Graphically a sequence diagram is a table that shows objects arranged along the X-and messages ordered in increasing time along the Y-axis.

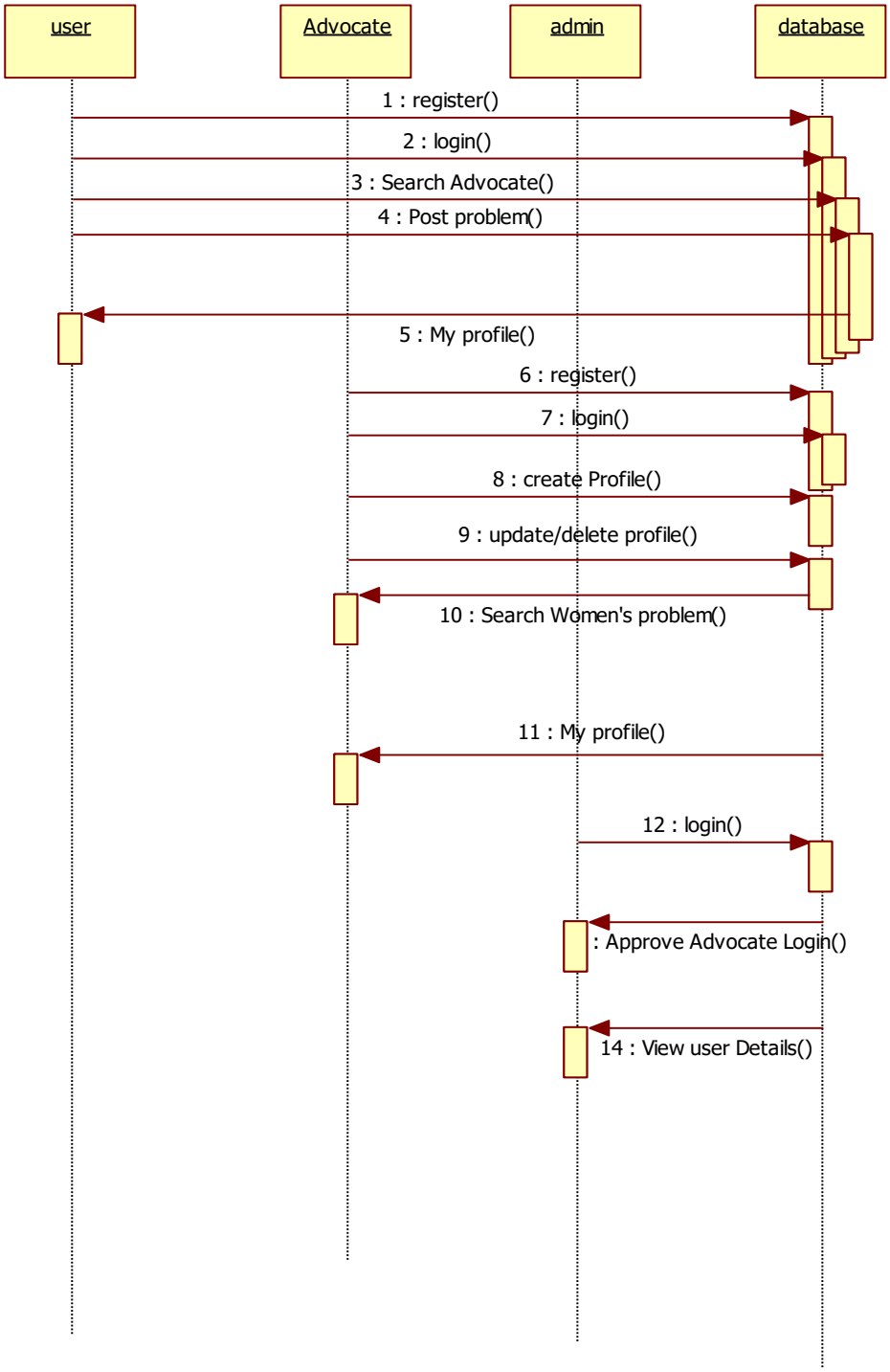


Fig: Sequence Diagram

4.1.3 COLLABORATION DIAGRAM

A collaboration diagram is a type of visual presentation that shows how various software objects interact with each other within an overall IT architecture and how users can benefit from this collaboration. A collaboration diagram often comes in the form of a visual chart that resembles a flow chart.

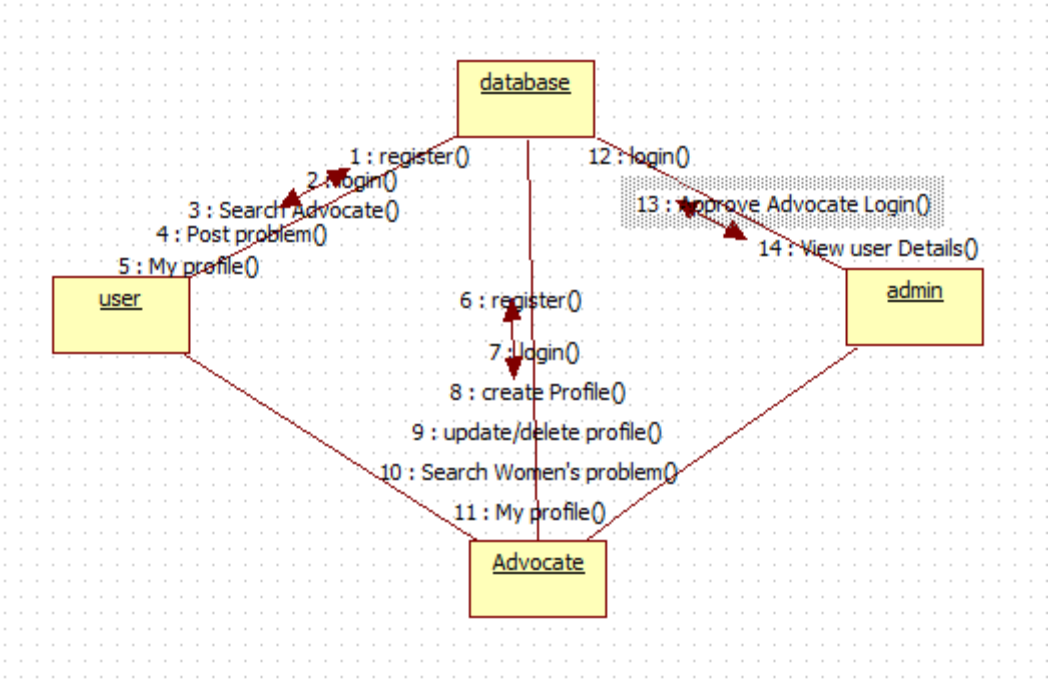


Fig: Collaboration Diagram

4.1.4 ARCHITECTURE DESIGN

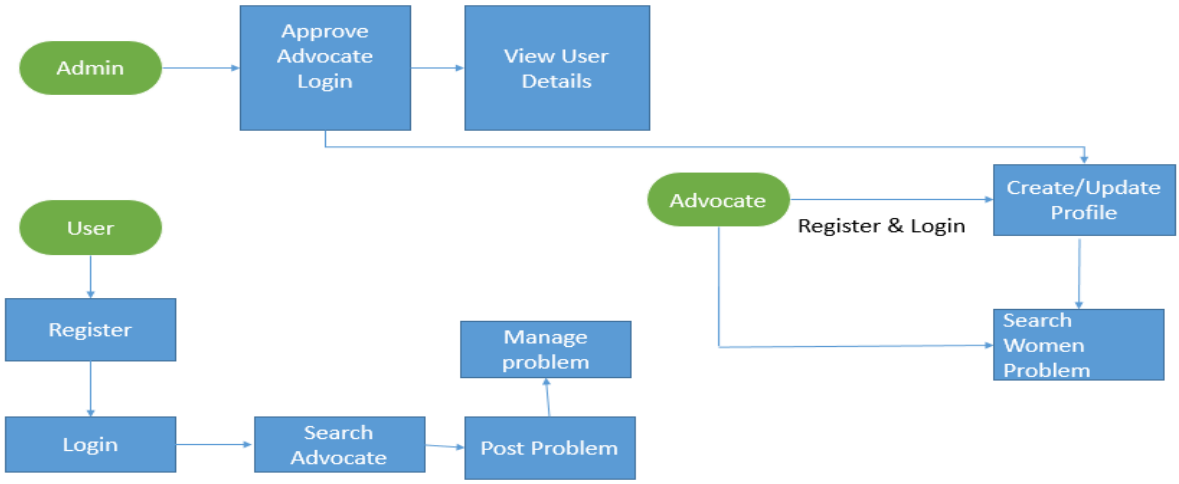
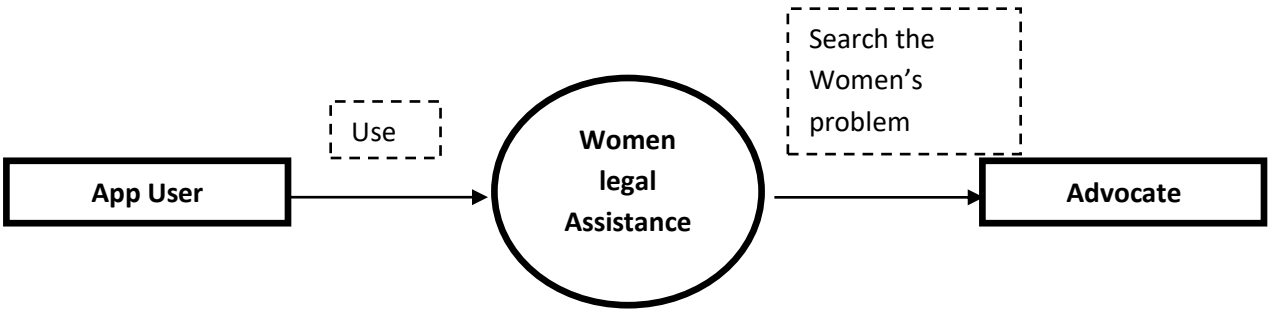


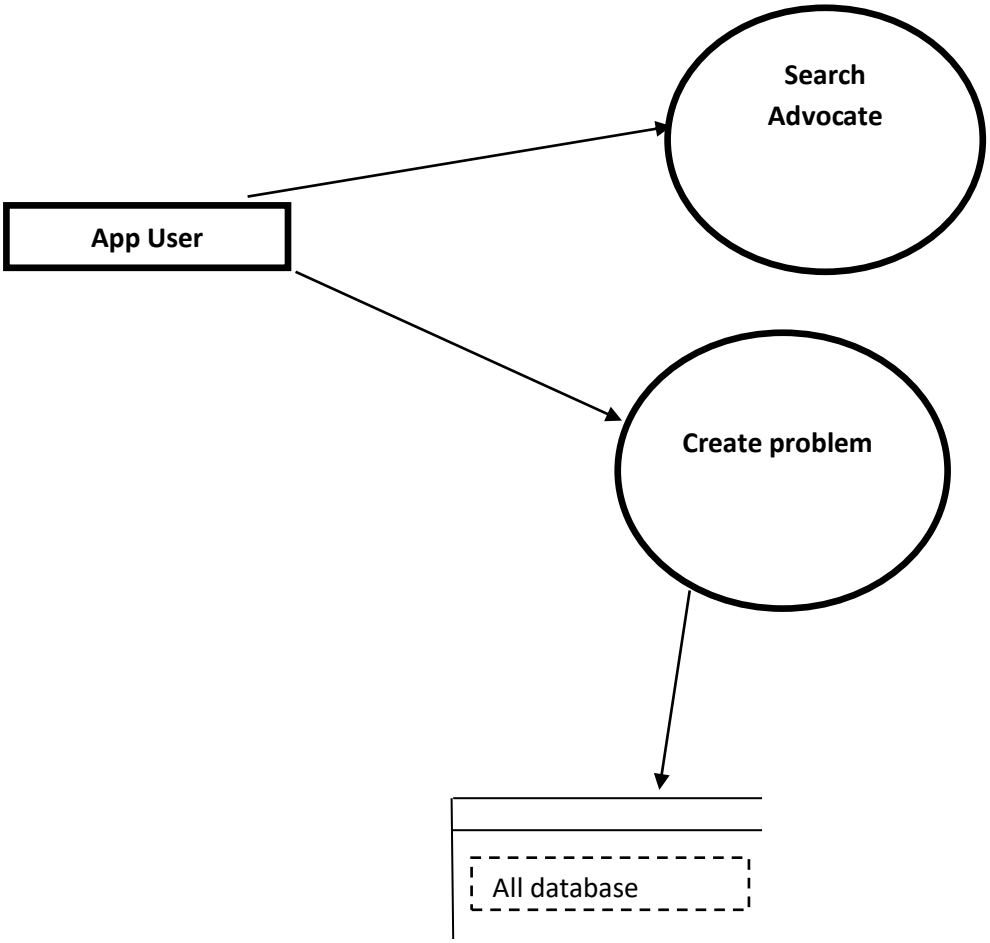
Fig: Architecture Design

4.1.5 DATA FLOW DIAGRAM

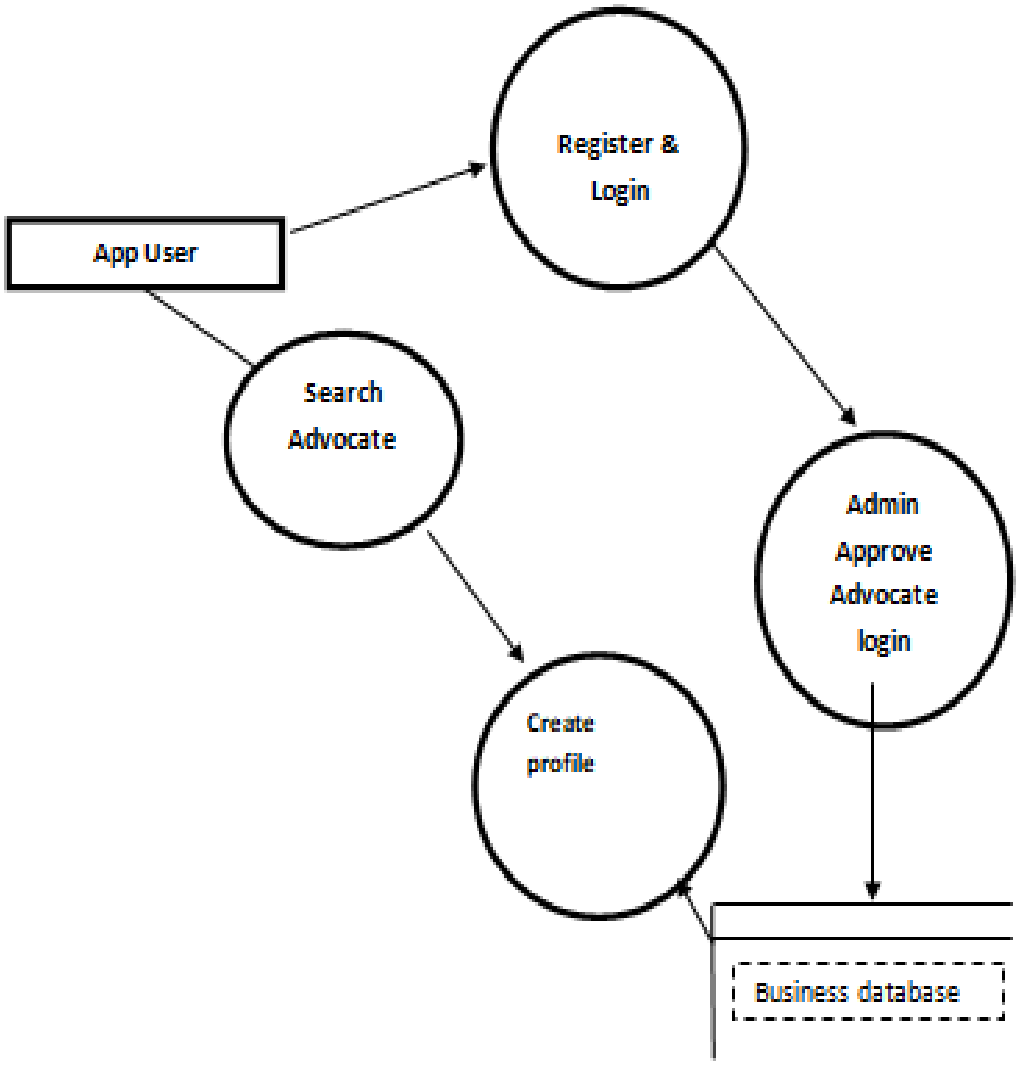
0-Level DFD

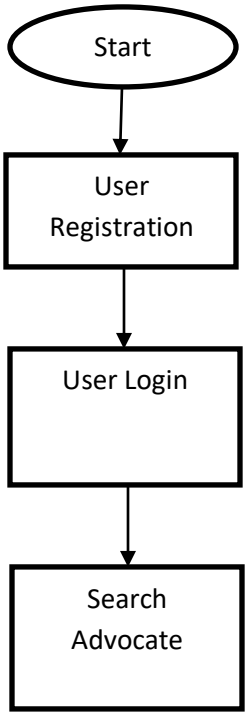


1-LEVEL DFD



2-Level DFD


Register &
Login
App User
Search
Advocate
Admin
Approve
Advocate
login
Create
profile
Business database


Start
User Registration
User Login
Search Advocate

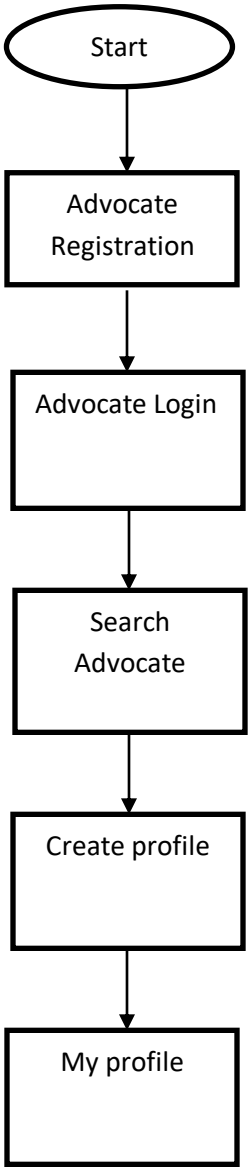


Fig: Data Flow Diagram

4.1.6 CLASS DIAGRAM

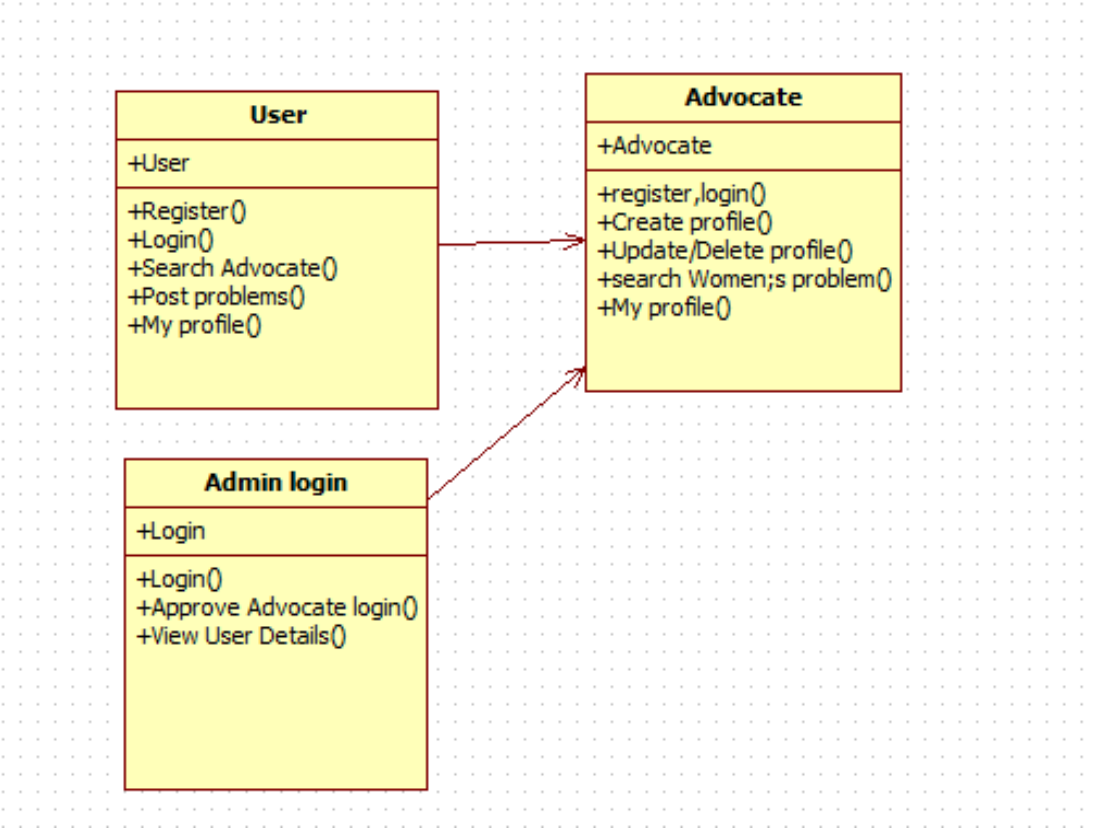


Fig: Class Diagram

4.1.7 TABLE DESIGN

Advocate

Field	Type	Description
advocate_id	INT (PK, AI)	Unique ID for each advocate
name	VARCHAR(100)	Full name of the advocate
email	VARCHAR(100)	Login email
password	VARCHAR(255)	Hashed password
mobile	VARCHAR(15)	Mobile number
address	TEXT	Address of the advocate
city	VARCHAR(50)	City where the advocate practices
location	VARCHAR(100)	Specific location
question1	VARCHAR(255)	Security question 1
question2	VARCHAR(255)	Security question 2
status	VARCHAR(10)	Status (pending/active)

User

Field	Type	Description
user_id	INT (PK, AI)	Unique user ID
name	VARCHAR(100)	Full name
email	VARCHAR(100)	Login email
password	VARCHAR(255)	Hashed password
mobile	VARCHAR(15)	Mobile number
address	TEXT	Address of the user
city	VARCHAR(50)	City
question1	VARCHAR(255)	Security question 1
question2	VARCHAR(255)	Security question 2
issue_type	VARCHAR(100)	Type of legal issue
preferred_lang	VARCHAR(100)	Preferred communication language

Admin

Field	Type	Description
admin_id	INT (PK, AI)	Admin ID
email	VARCHAR(100)	Admin email
password	VARCHAR(255)	Hashed password (MD5/secure)

Advocate Profile

Field	Type	Description
advocate_id	INT (FK)	FK from advocate table
name	VARCHAR(100)	Full name
practice_areas	TEXT	Legal practice areas
experience	VARCHAR(50)	Years of experience
about	TEXT	Bio or about section
languages	TEXT	Languages spoken
courts	TEXT	Courts where they practice
address	TEXT	Office address
enrolment_number	VARCHAR(100)	Official enrollment number
mobile	VARCHAR(15)	Mobile number

User Problems

Field	Type	Description
problem_id	INT (PK, AI)	Unique problem ID
user_id	INT (FK)	FK from user table
name	VARCHAR(100)	Name of user who posted the problem
case_type	VARCHAR(100)	Type of case or legal problem
problem	TEXT	Description of the issue
case_no	VARCHAR(100)	Case number (optional/if exists)
address	TEXT	Address related to the case
mobile	VARCHAR(15)	Contact number

Advocate Solutions

Field	Type	Description
solution_id	INT (PK, AI)	Unique solution ID
problem_id	INT (FK)	FK from user_problems
advocate_id	INT (FK)	FK from advocate
solution	TEXT	Advocate's reply/solution
solution_date	DATE	Date when solution was posted

Feedback

Field	Type	Description
feedback_id	INT (PK, AI)	Unique ID for each feedback entry
user_email	VARCHAR(100)	Email of the user giving feedback
name	VARCHAR(100)	Name of the user
feedback	TEXT	Feedback content

4.1.8 ER DIAGRAM

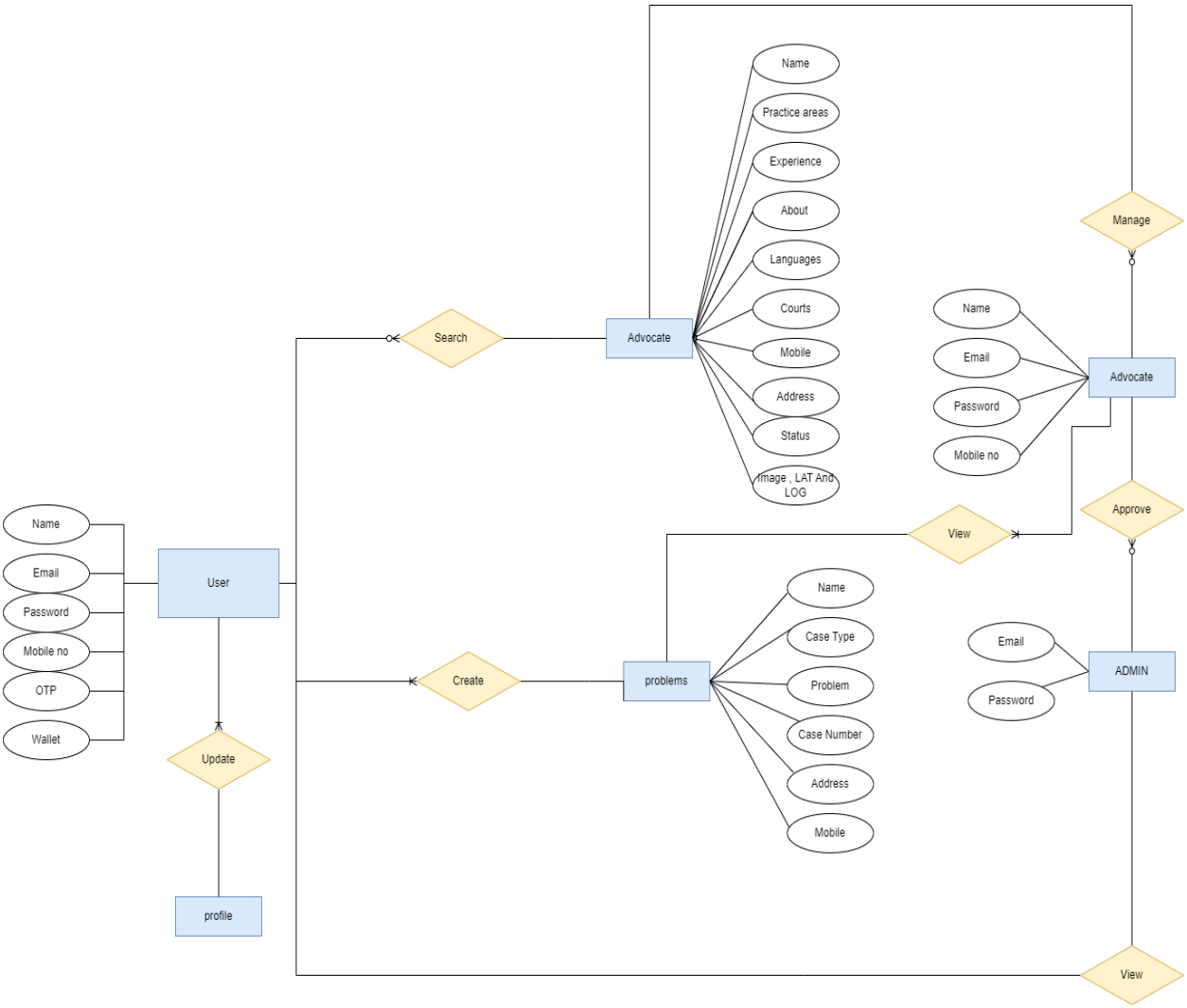


Fig: ER Diagram

4.1.9 ACTIVITY DESIGN

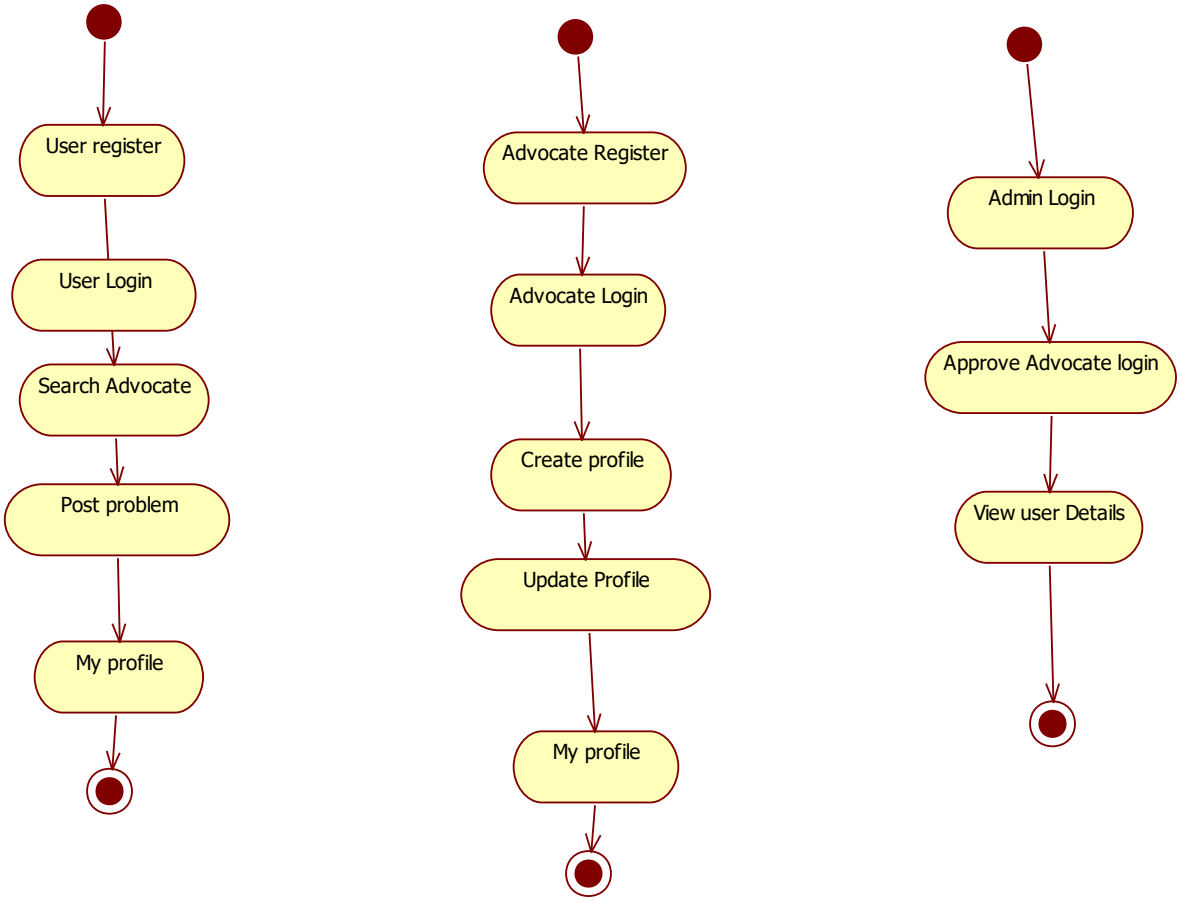


Fig: Activity Design

4.1.10 WORKFLOW DIAGRAM

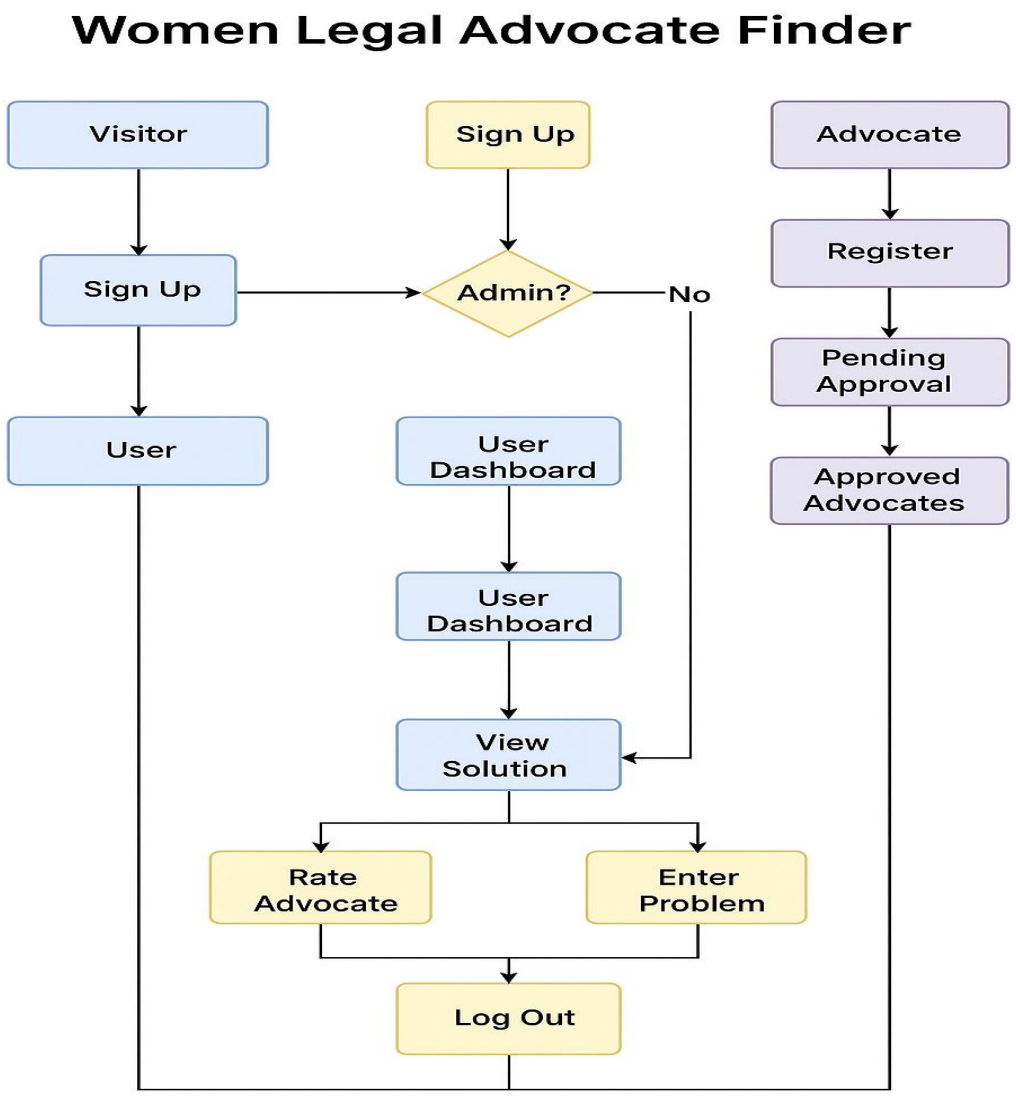


Fig: Workflow Diagram

5. SCREENSHOT

HOME PAGE

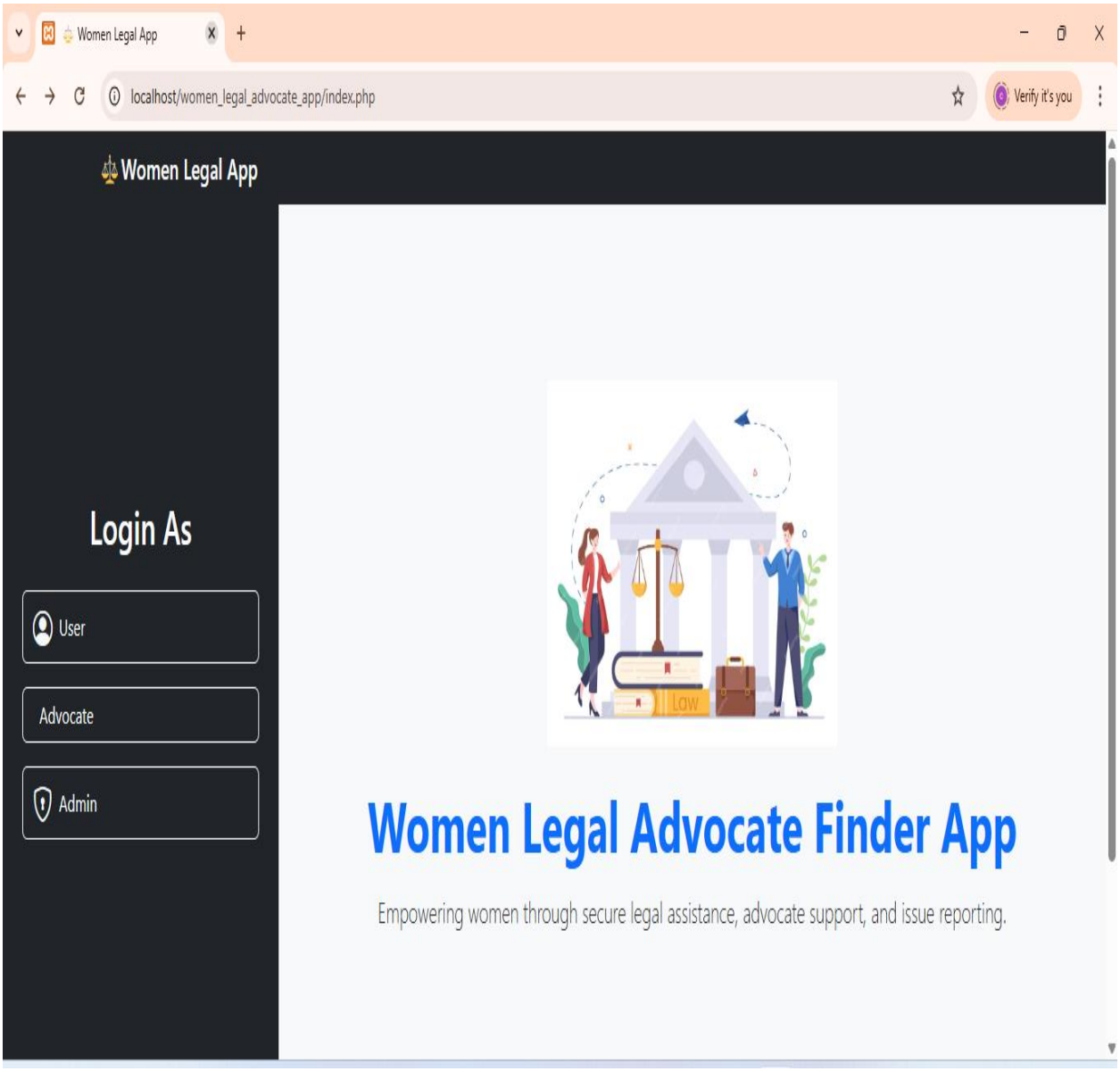


Fig1: Home page

USER LOGIN

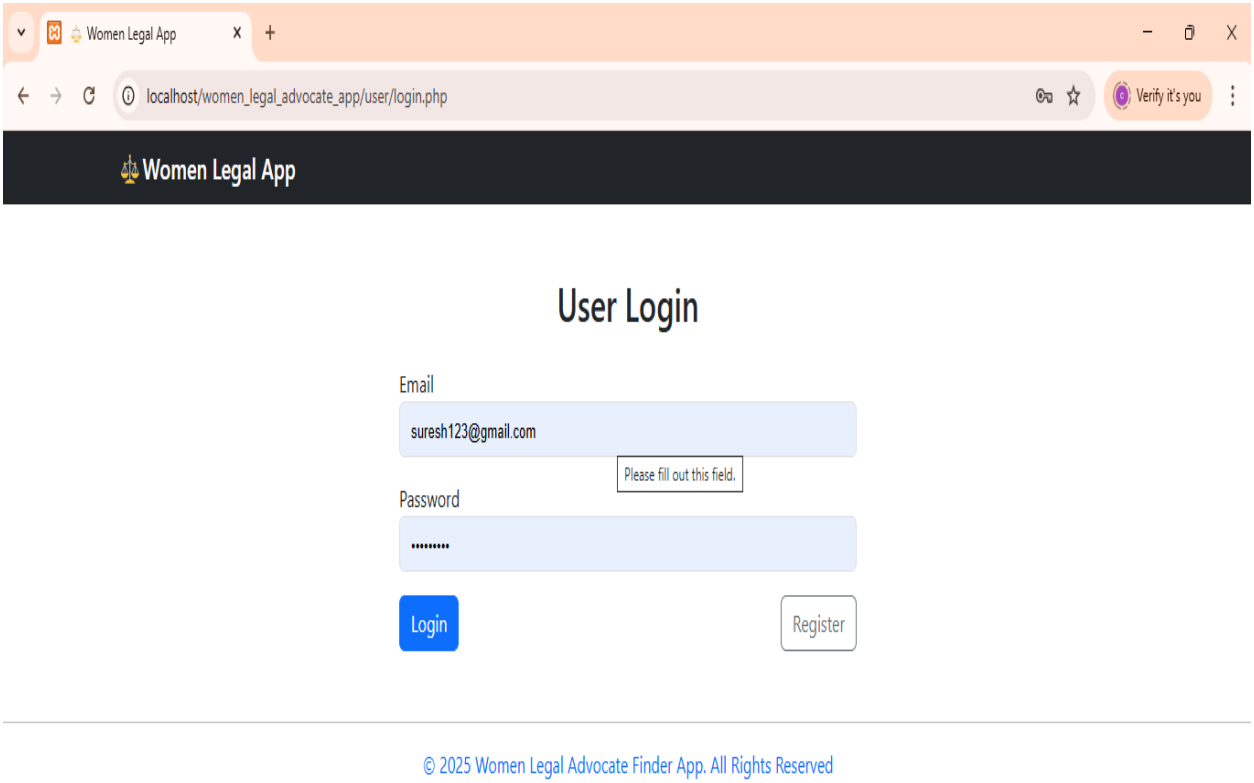


Fig2: User Login

USER REGISTRATION

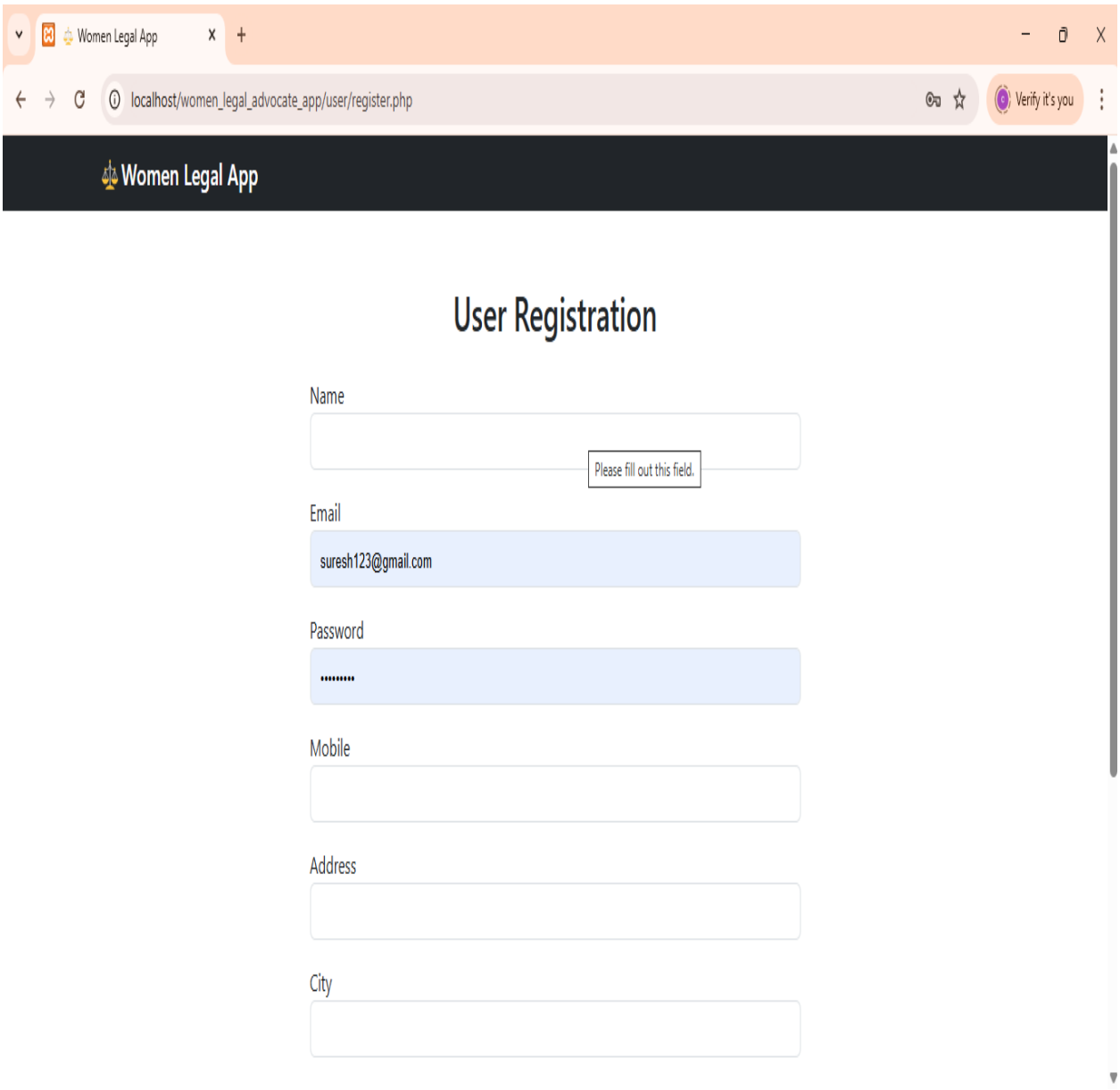


Fig3: User Registration

USER DASHBOARD

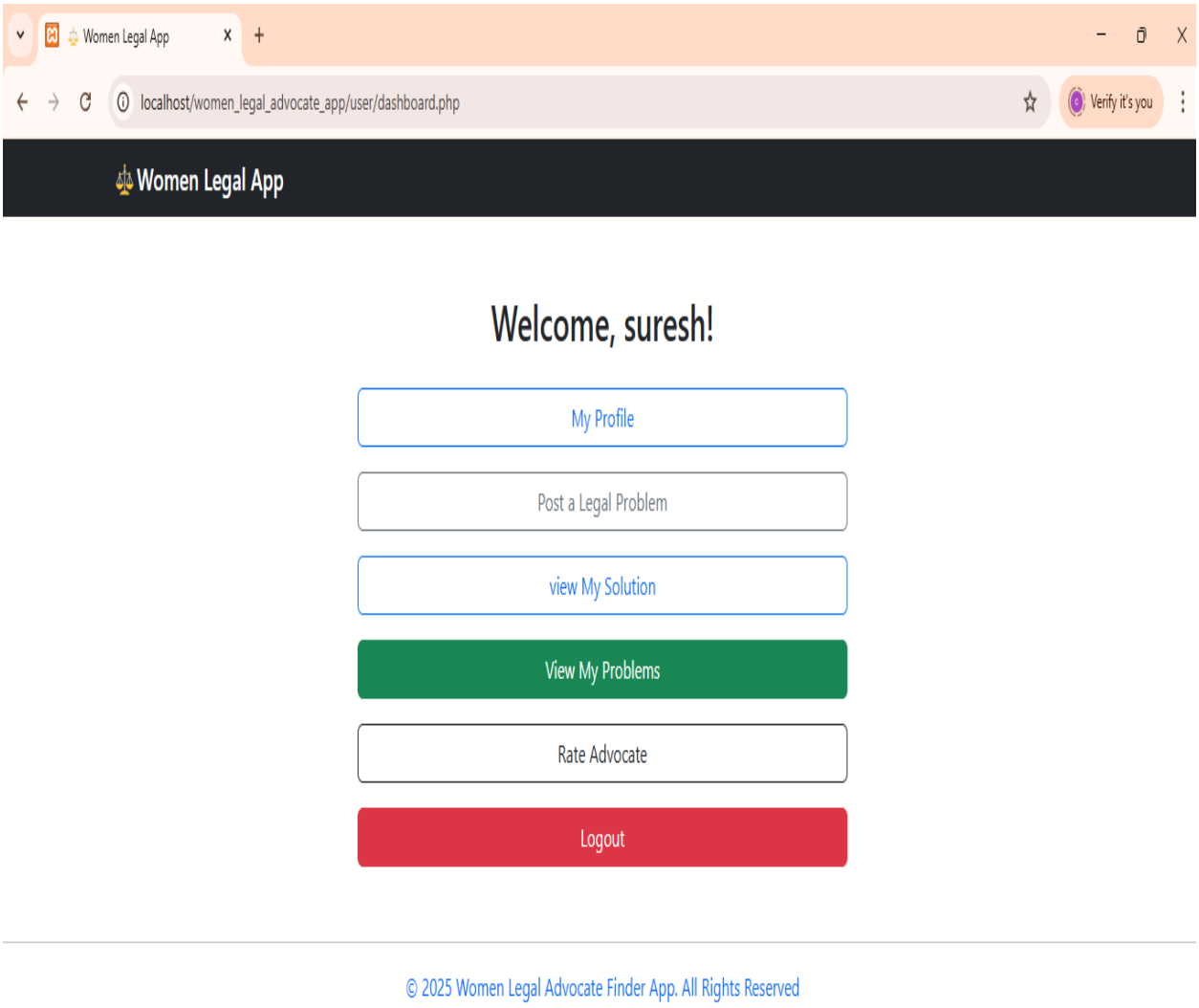


Fig4: User Dashboard

USER PROFILE

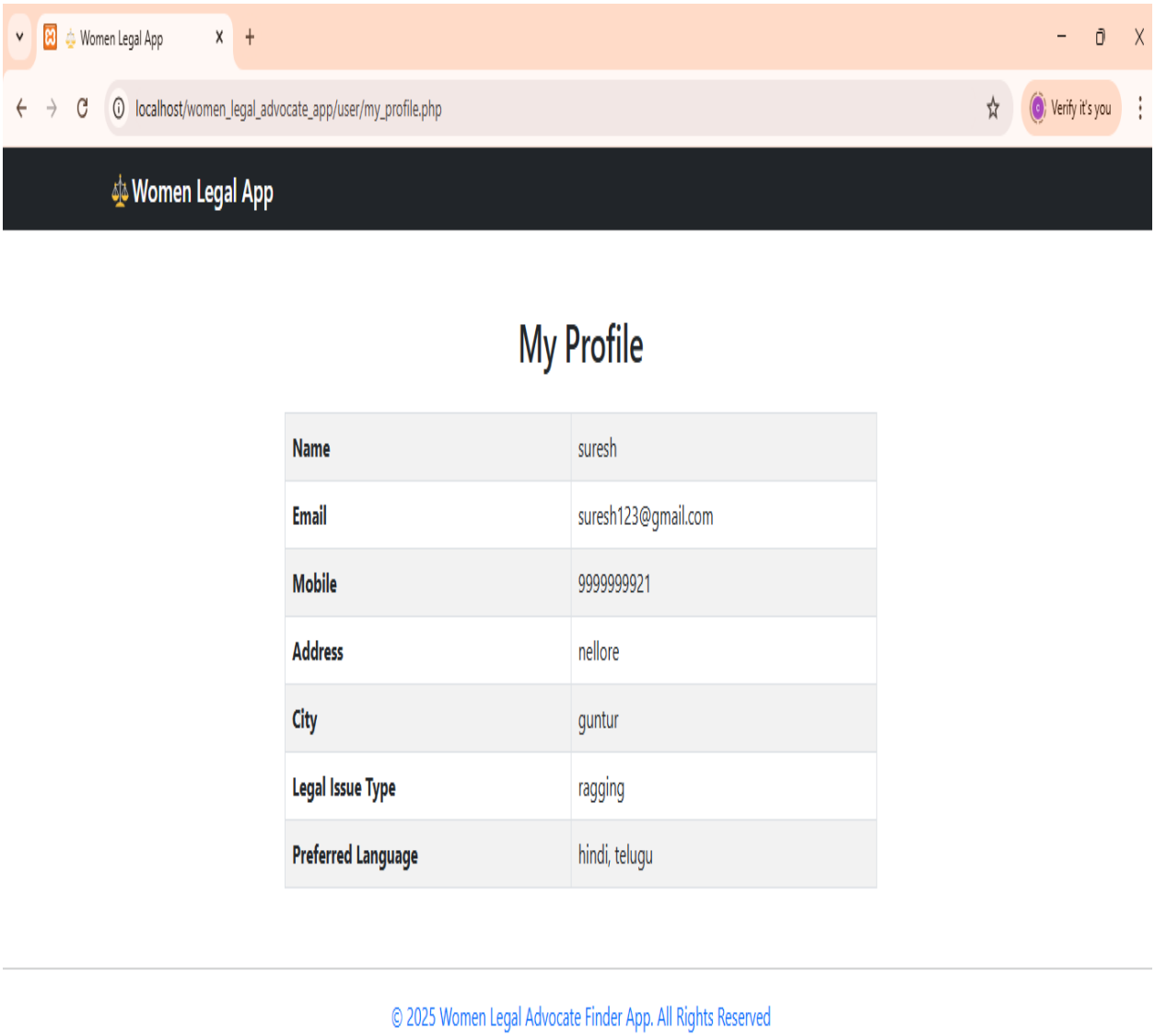


Fig5: User Profile

POST YOUR LEGAL ISSUES

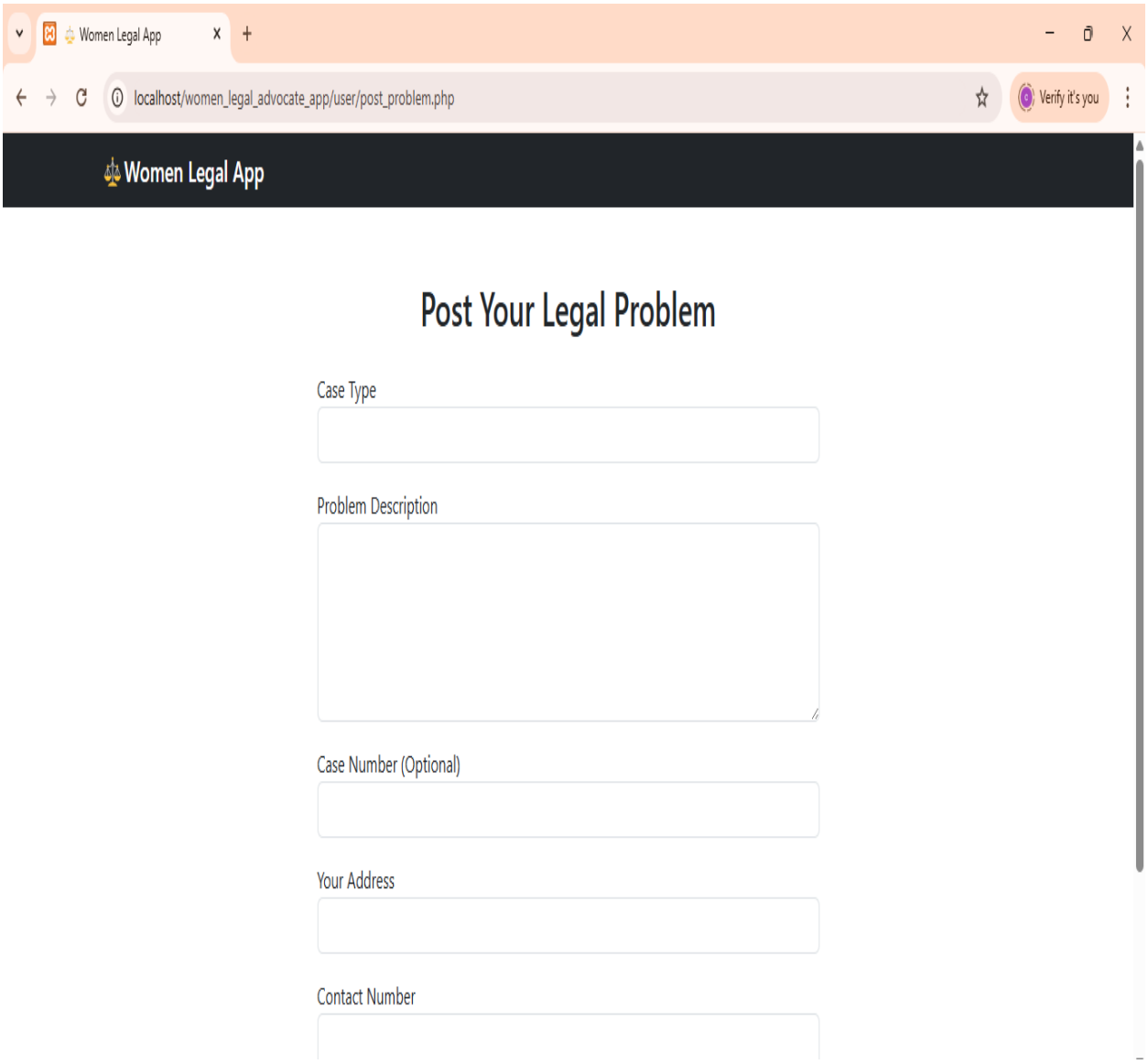


Fig6: Post Your Legal Issues

SOLUTIONS FROM ADVOCATE TO USER

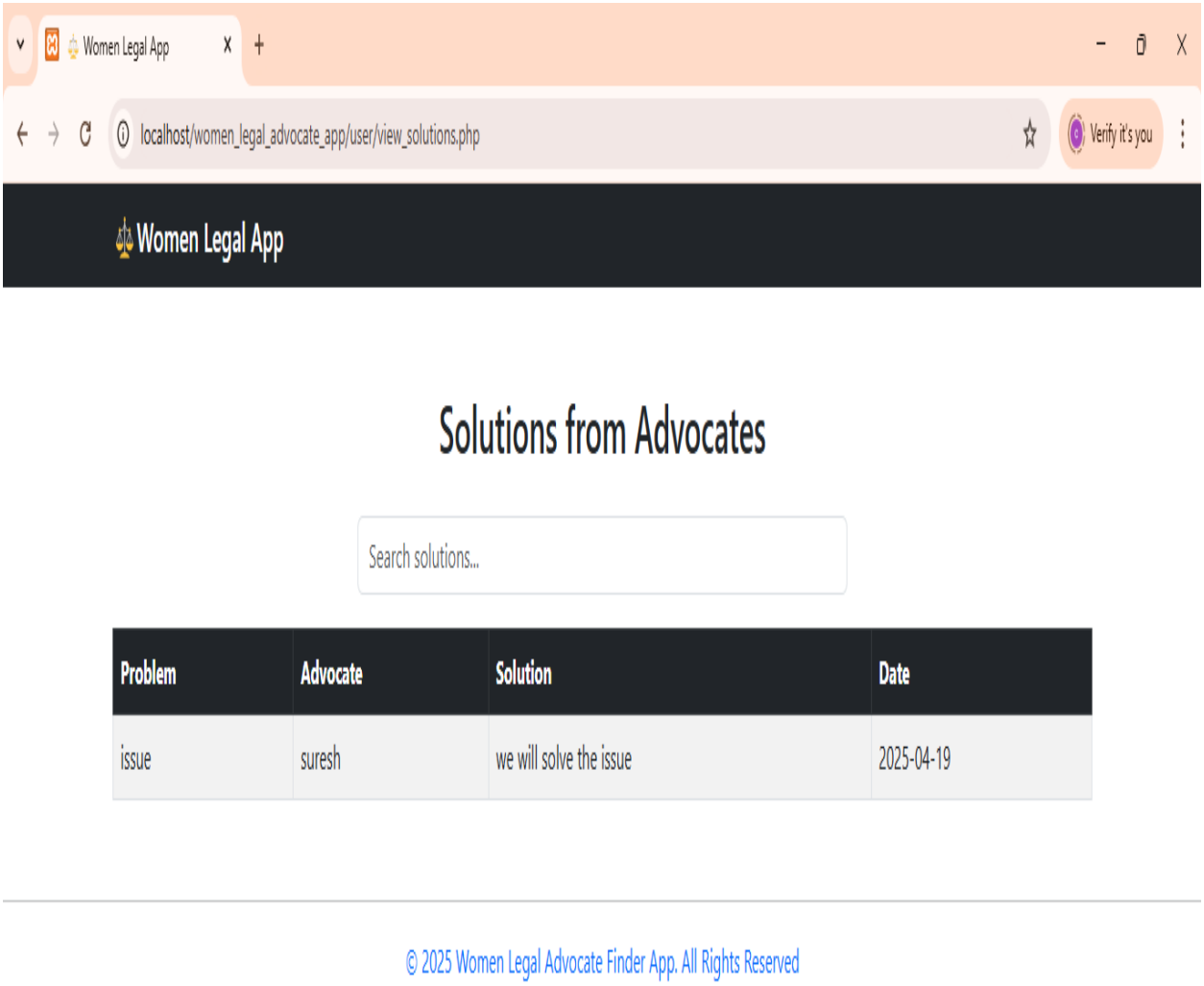


Fig7: Solutions From Advocate To User

MY POST PROBLEMS

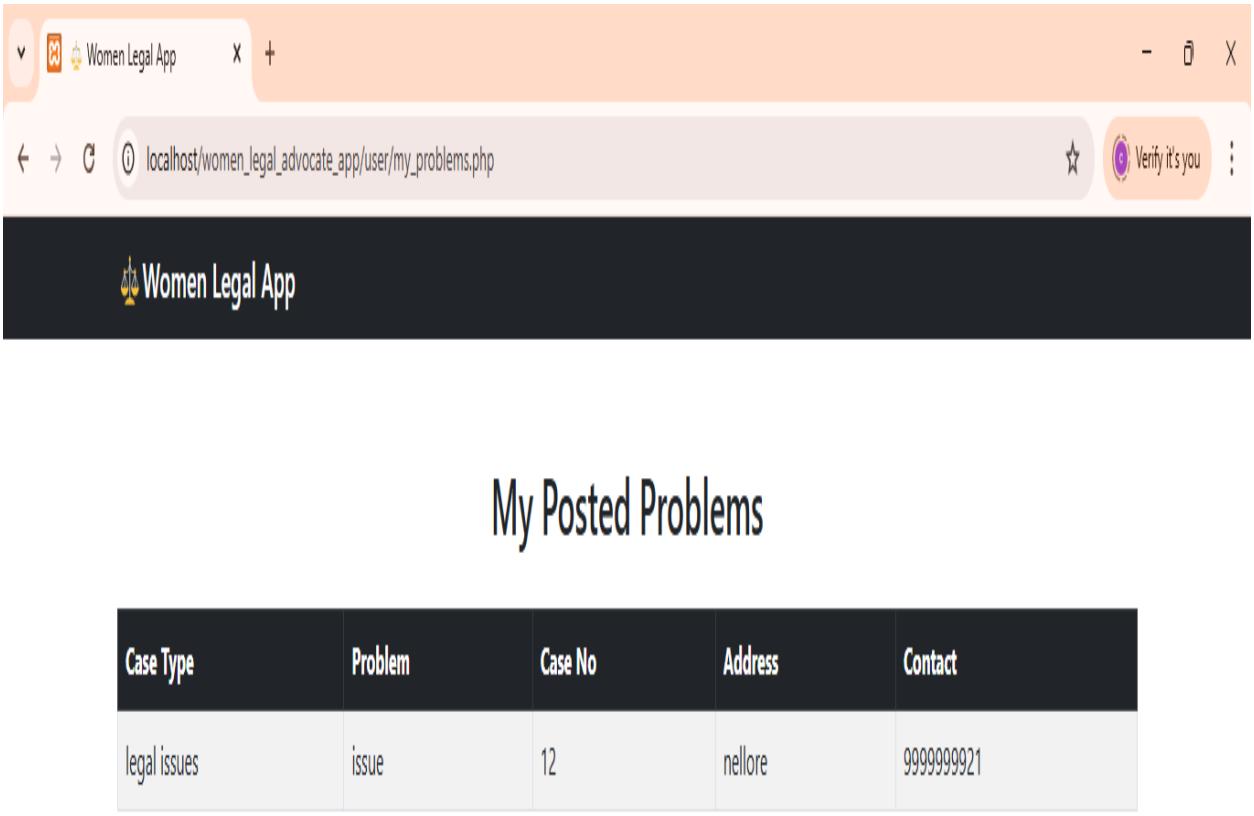


Fig8: My Post Problems

RATE AN ADVOCATE

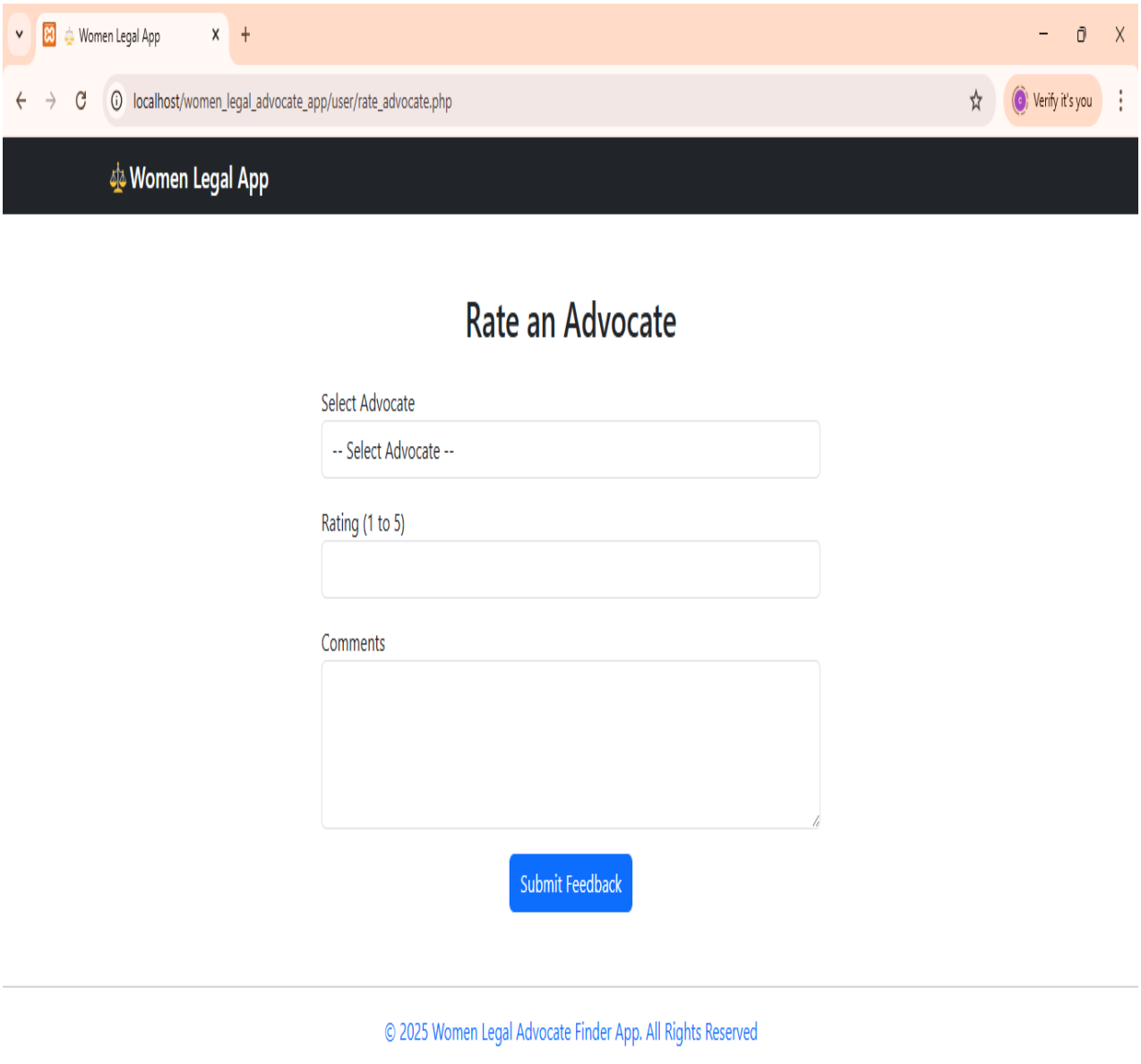


Fig9: Rate An Advocate

ADVOCATE LOGIN

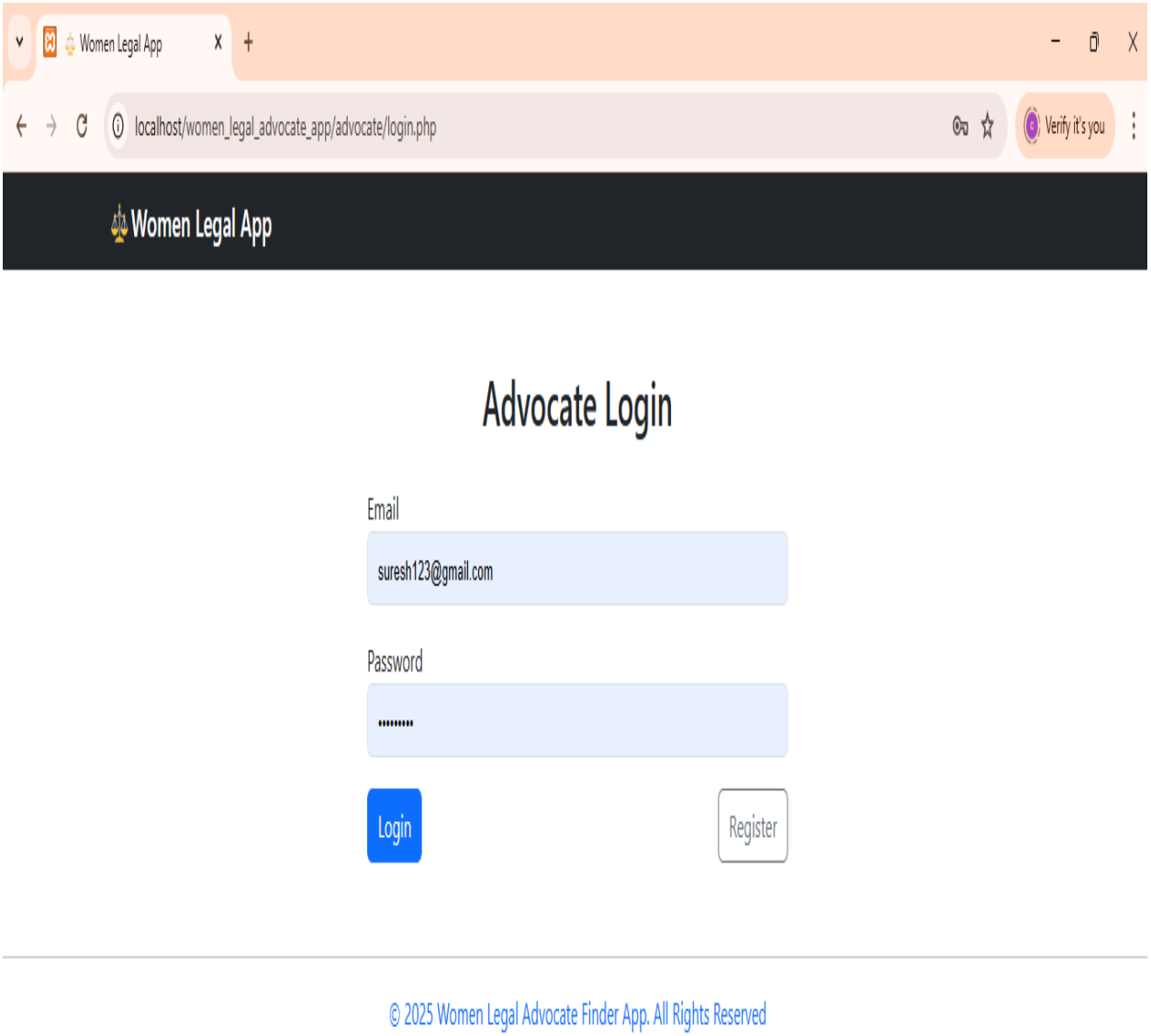


Fig10: Advocate Login

ADVOCATE REGISTRATION

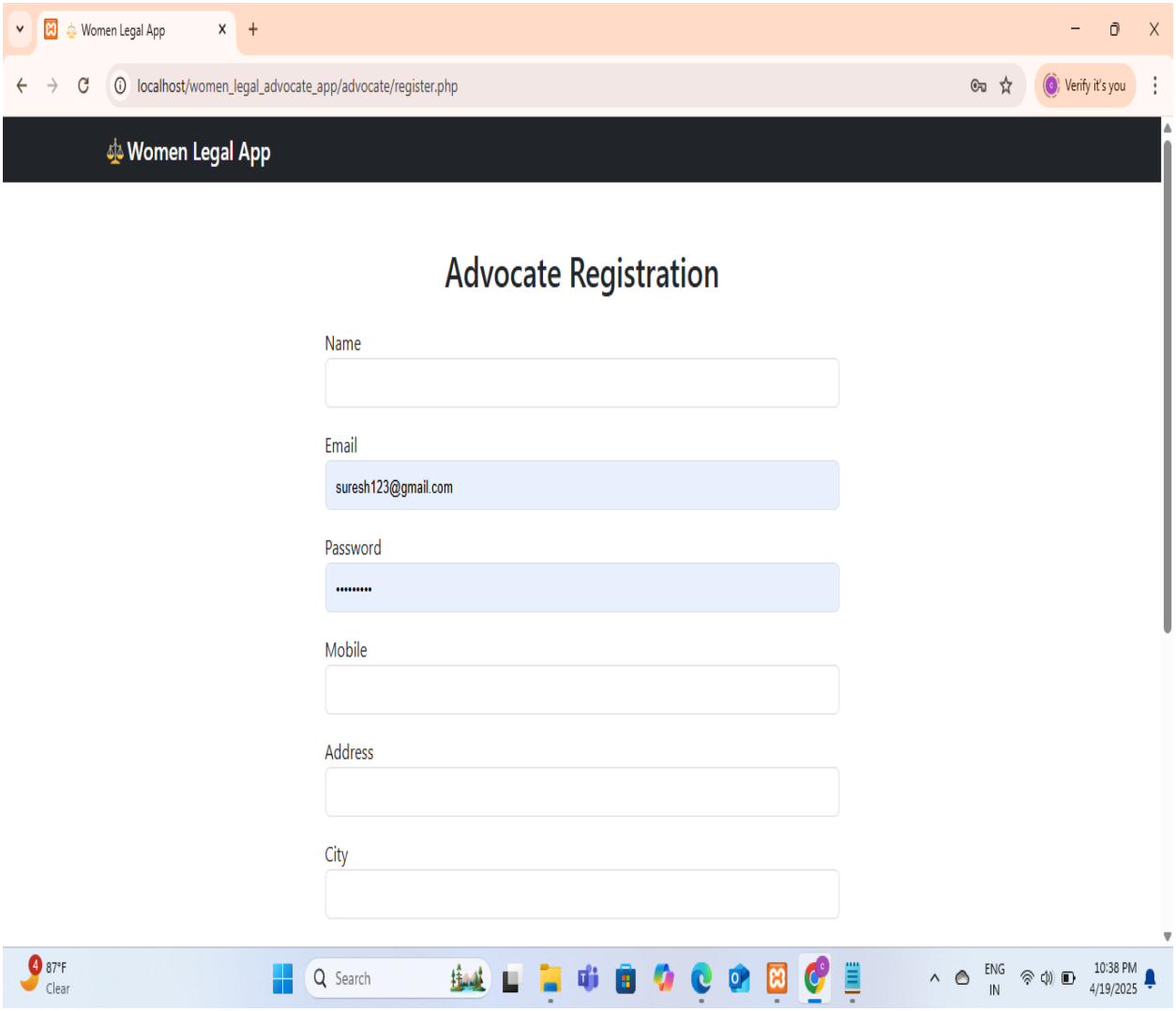


Fig11: Advocate Registration

ADVOCATE DASHBOARD

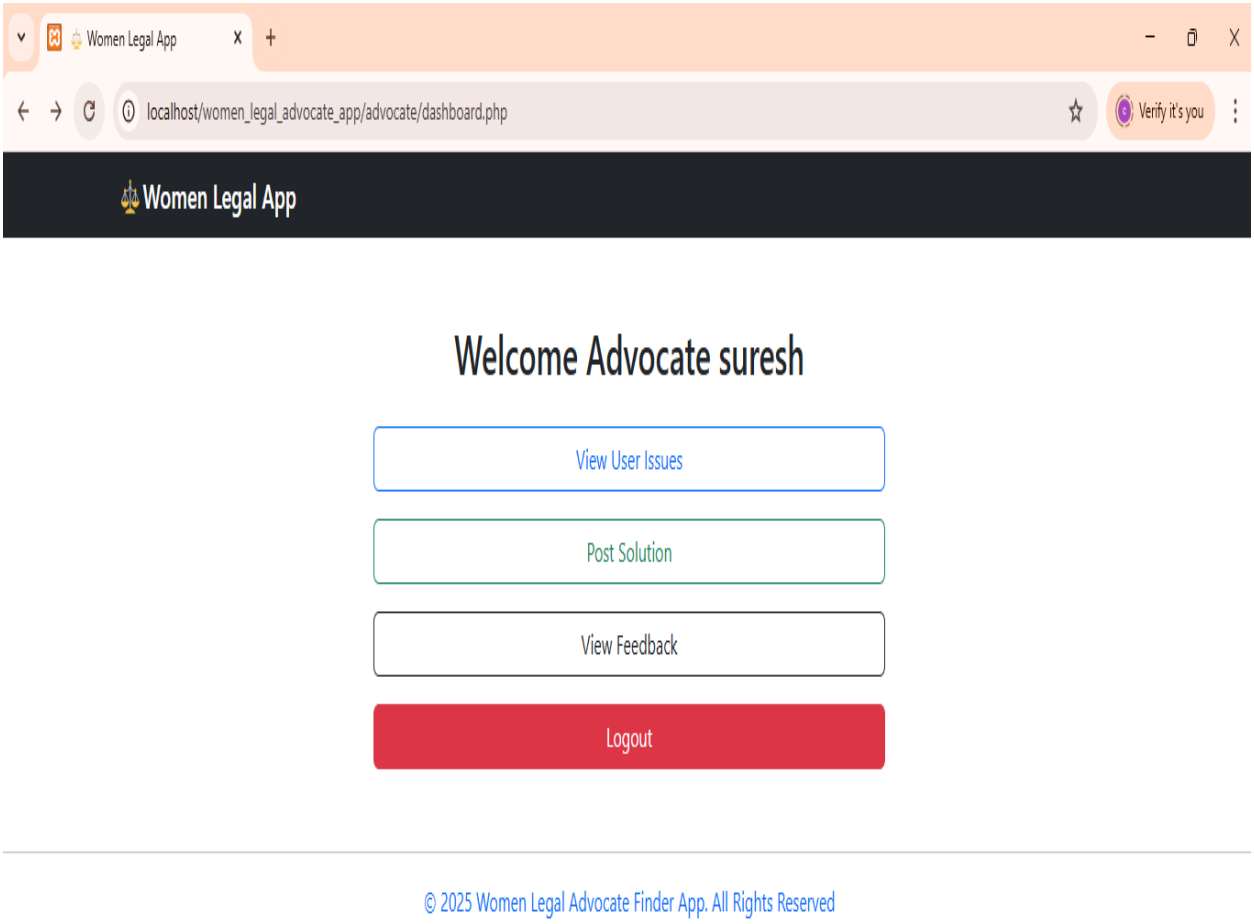


Fig12: Advocate Dashboard

USER LEGAL ISSUES

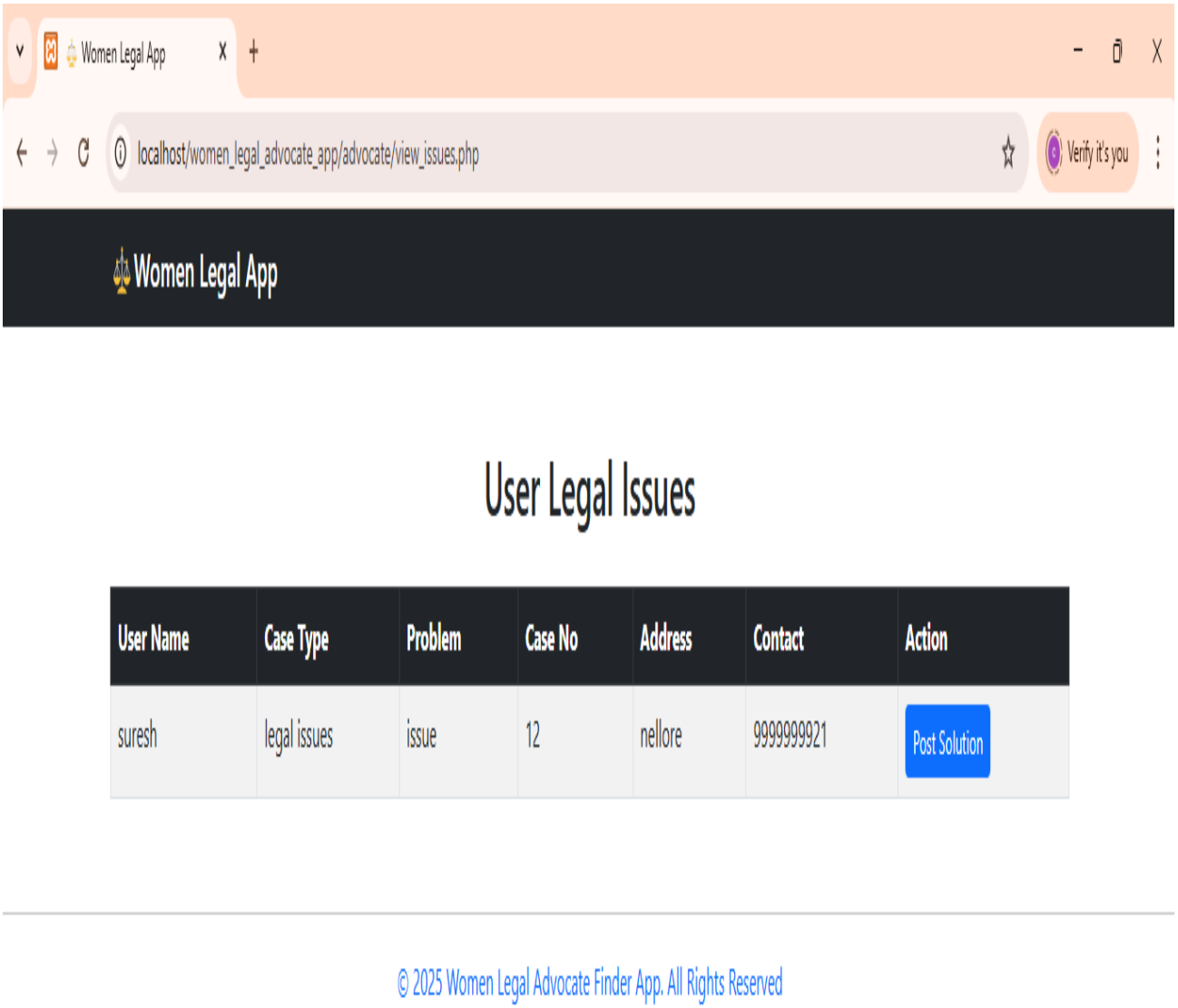


Fig13: User Legal Issues

FEEDBACK FROM USERS TO ADVOCATES

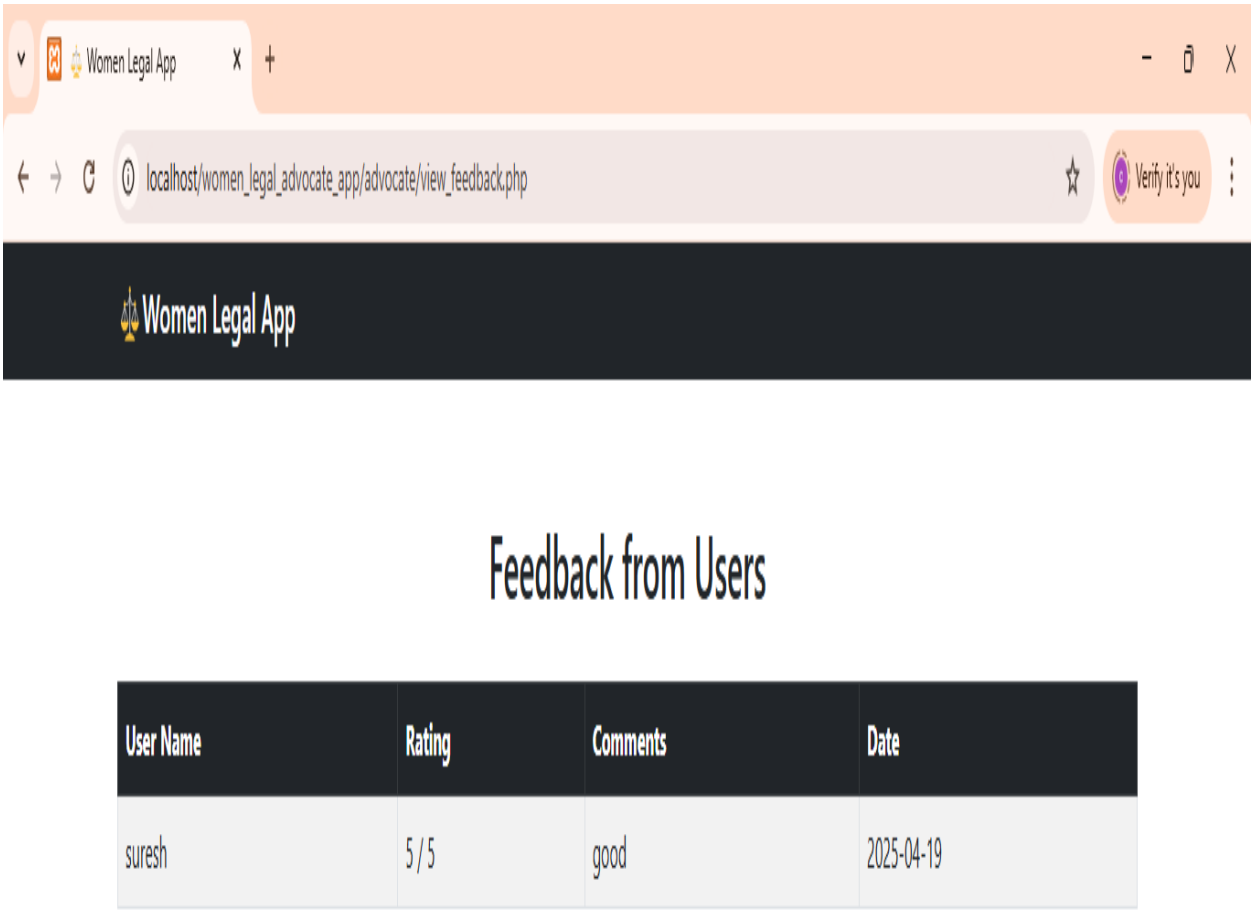


Fig14: Feedback From Users To Advocates

ADMIN LOGIN PAGE

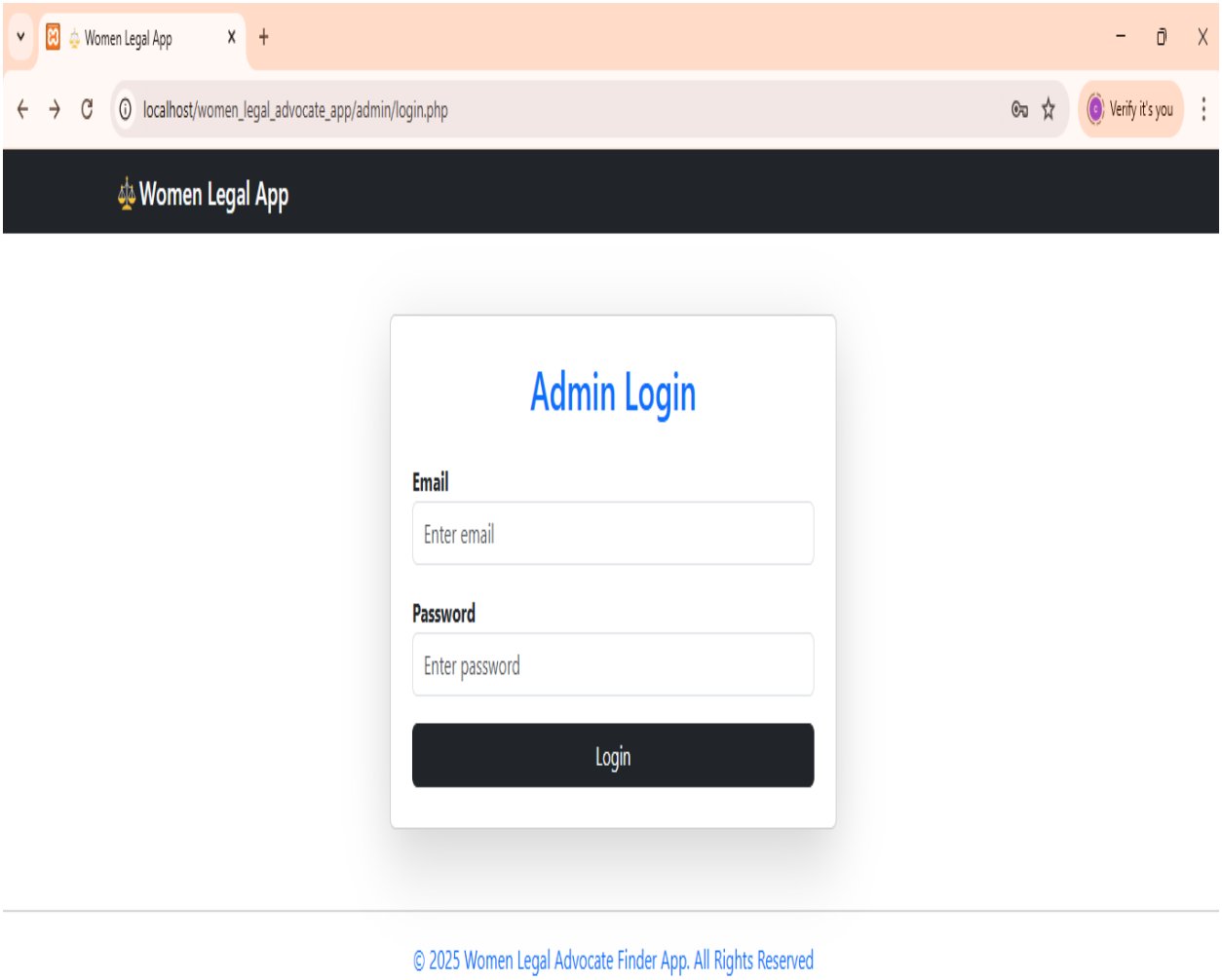


Fig15: Admin Login Page

ADMIN DASHBOARD

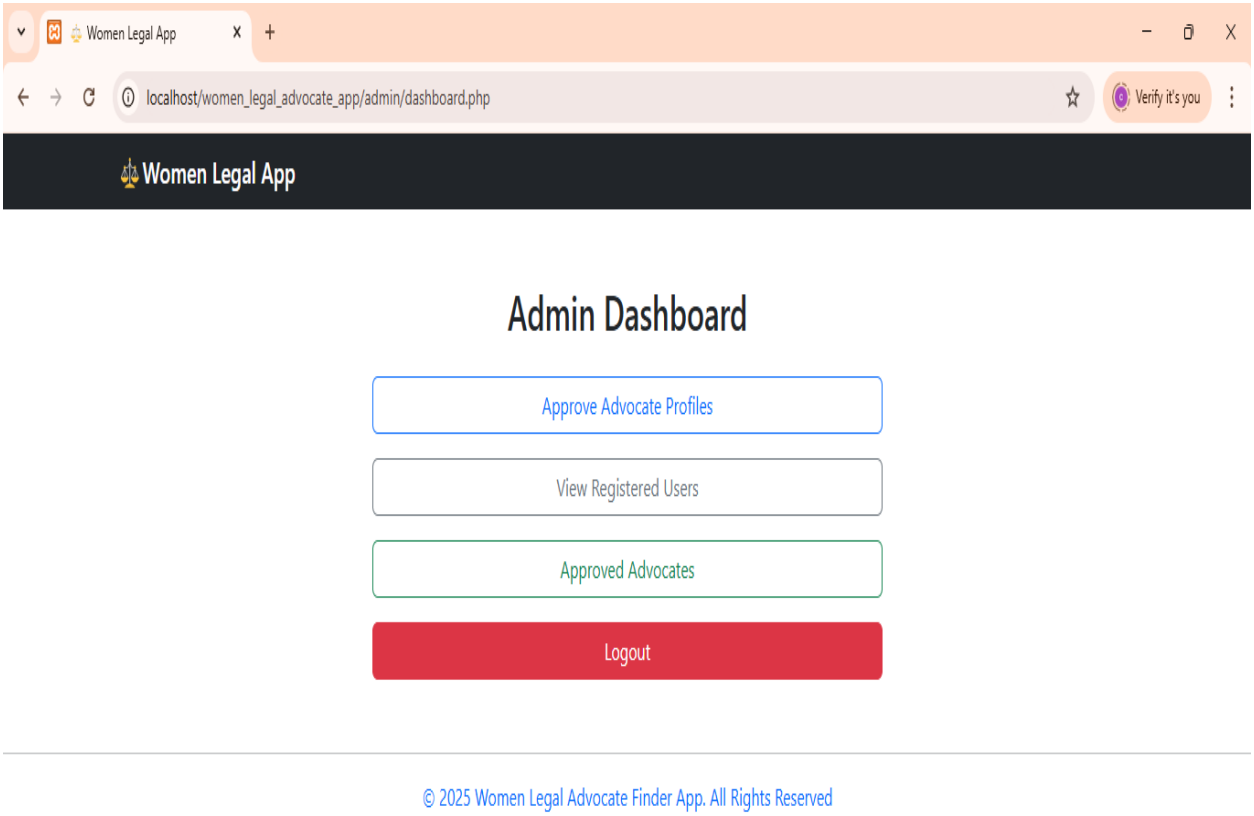


Fig16: Admin Dashboard

PENDING ADVOCATE APPROVALS

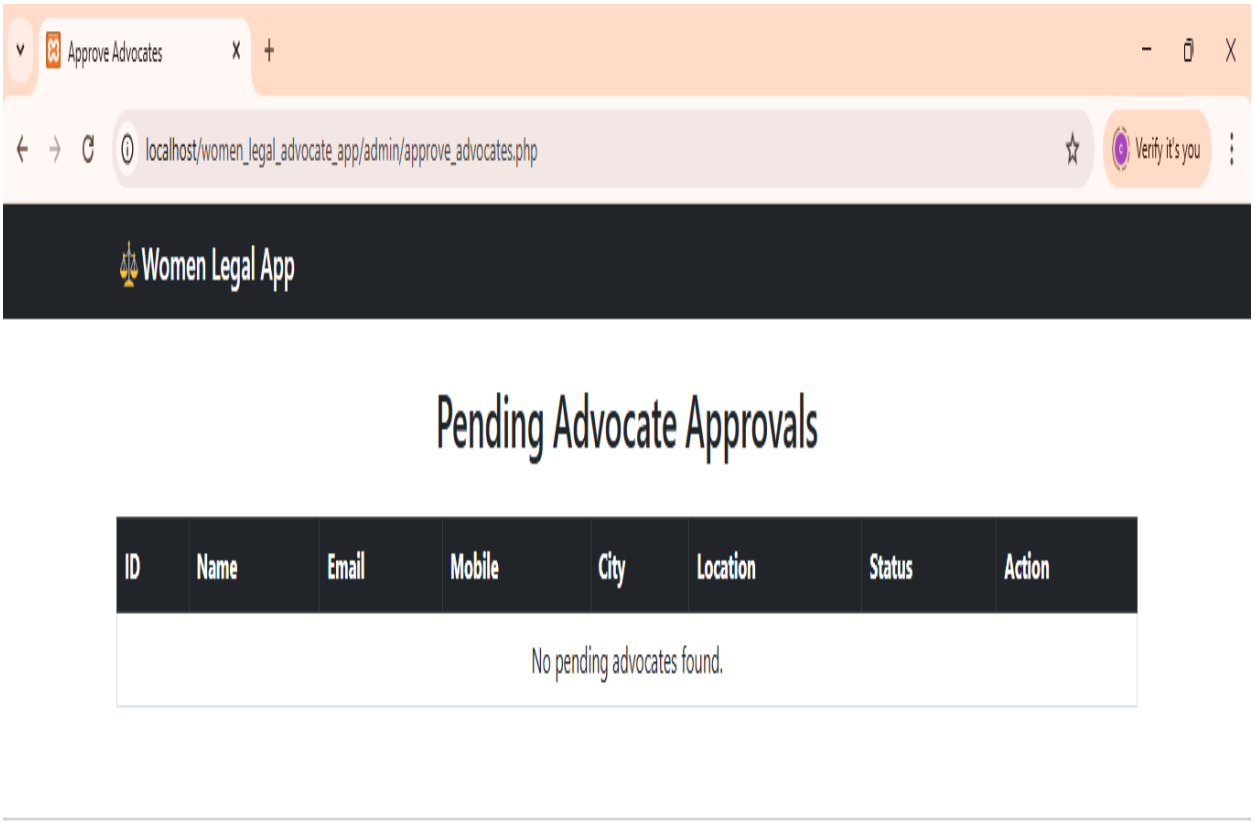


Fig17: Pending Advocate Approvals

REGISTERED USER AND REGISTERED ADVOCATES

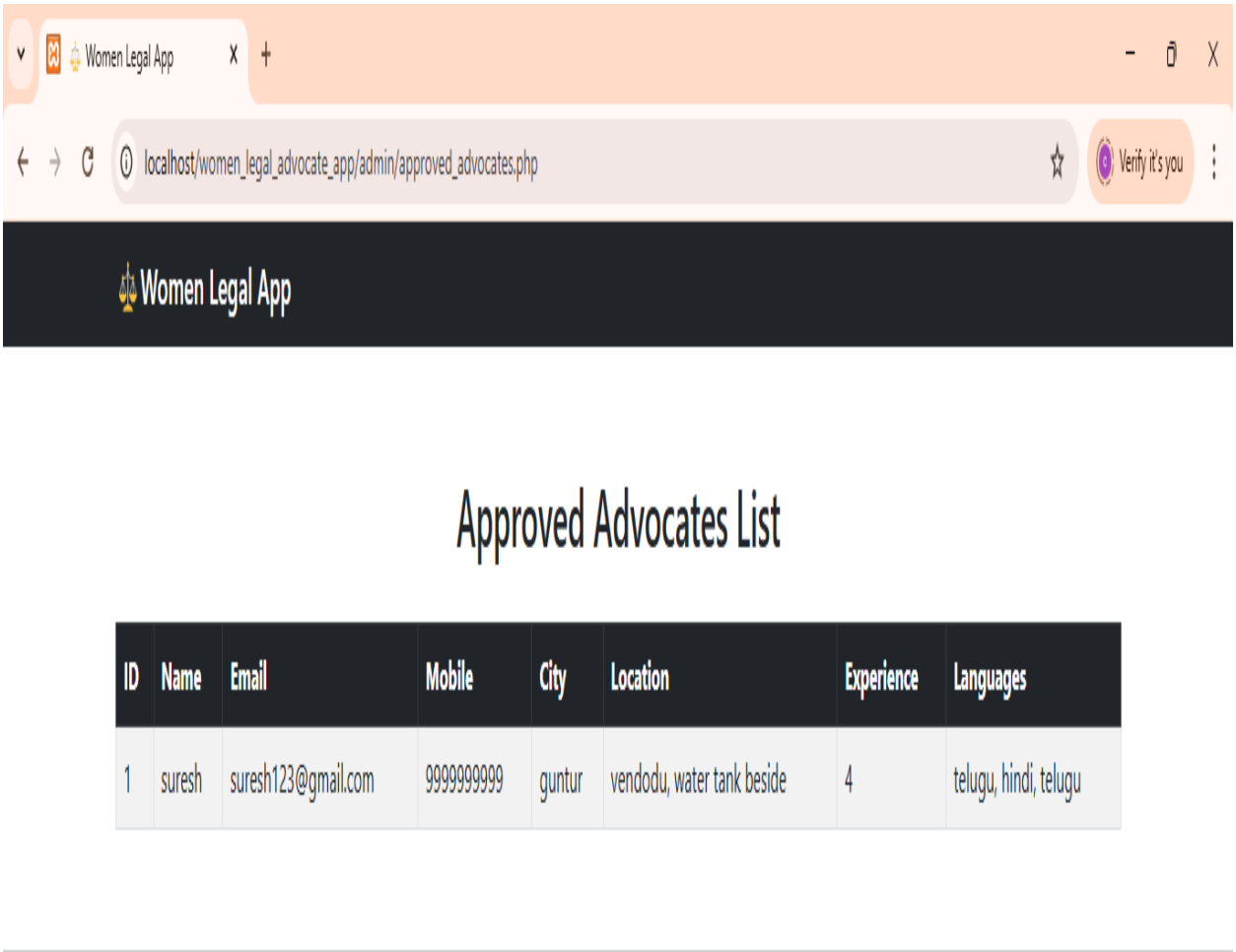


Fig18: Registered User and Registered Advocates

REGISTERED USER AND REGISTERED ADVOCATES

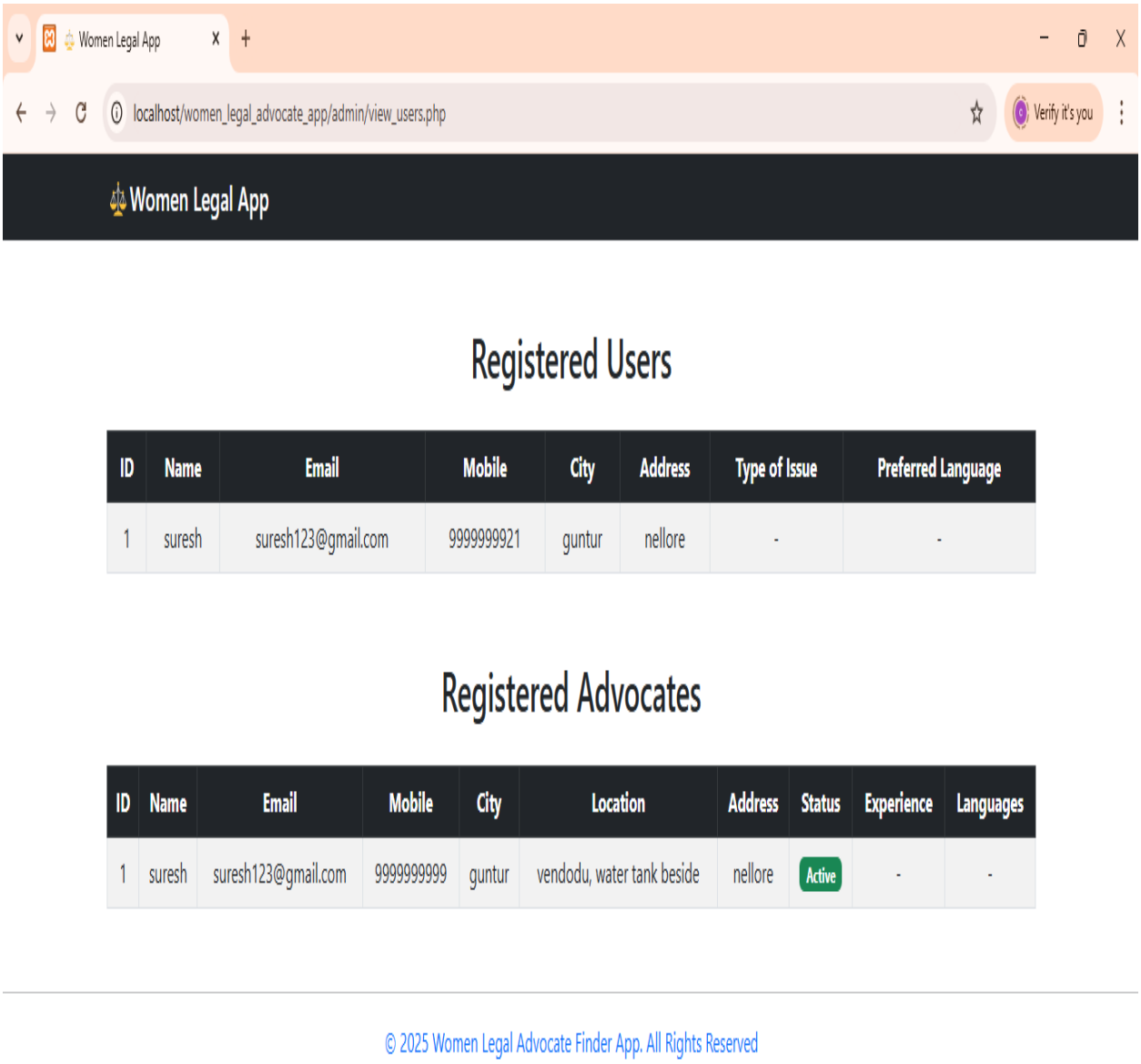


Fig19: Registered User and Registered Advocates

APPROVED ADVOCATES LIST

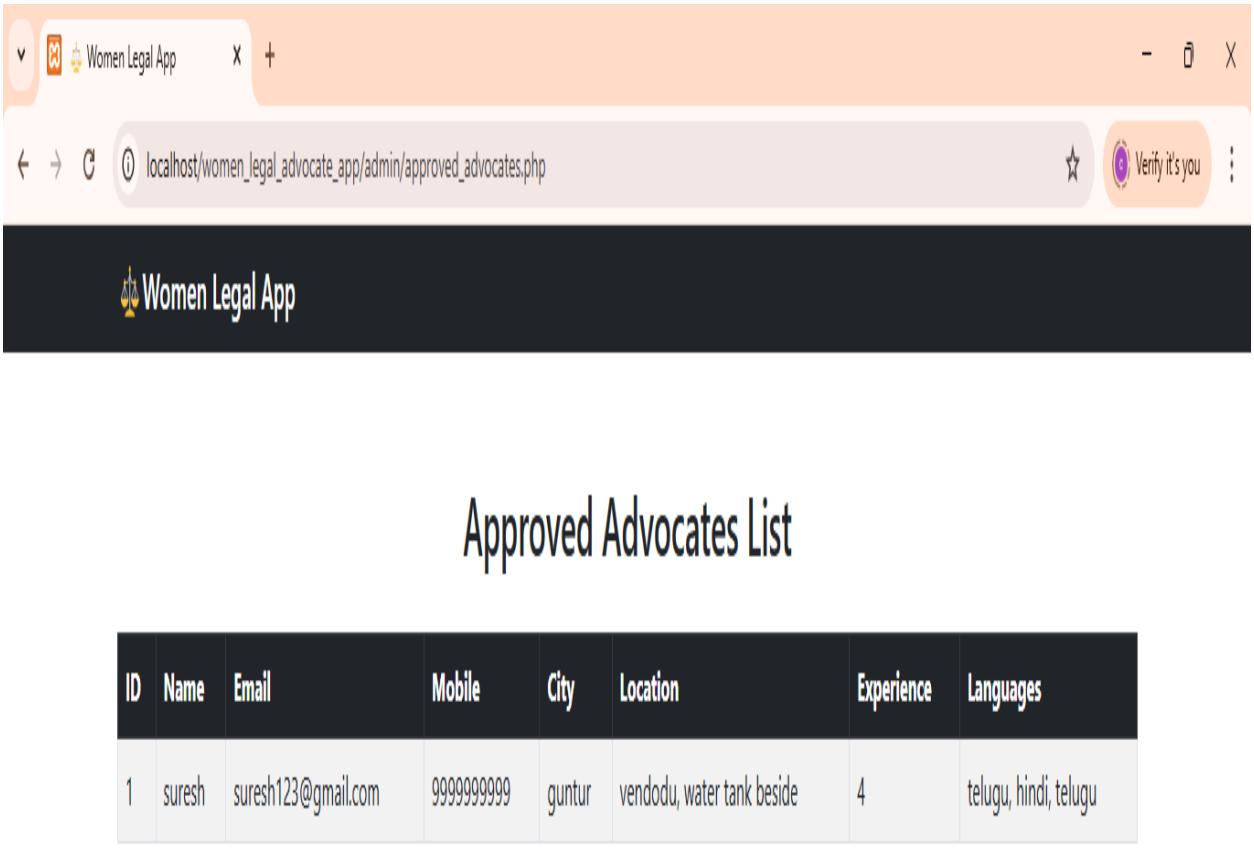


Fig20: Approved Advocates List

6. IMPLEMENTATION DETAILS

The implementation phase is where all the planning, design, and documentation are transformed into a working system. It is the stage where theoretical concepts and software models come to life through practical coding and integration. In the case of the Women Legal Advocate Finder Web Application, implementation involves the development of a responsive, role-based, and secure web platform that facilitates seamless interaction between women seeking legal help and professional advocates.

The system is divided into three key modules — Admin, User, and Advocate — each of which has been developed with a specific workflow and access privileges. A combination of technologies including HTML5, CSS3, Bootstrap 5, PHP 8.1, MySQL, AngularJS, and JavaScript are used to implement various layers of the system ranging from interface to database interaction. Each module was built incrementally and thoroughly tested to ensure that the final product is modular, scalable, and capable of delivering a user-friendly experience. From form validation to session control, and from data storage to dashboard design, the implementation stage played a crucial role in realizing the project's goals.

This chapter provides an in-depth explanation of the tools, technologies, database structure, coding strategies, and interactive elements used to bring this system to life. The goal of the implementation process was not only to meet the functional requirements but also to ensure security, usability, and extensibility of the application in the long run.

6.1 Introduction to HTML Framework

The Women Legal Advocate Finder Web Application relies heavily on the structural capabilities provided by HTML5, which forms the backbone of all front-end pages. HTML (HyperText Markup Language) is responsible for the semantic structuring of web content and acts as the scaffolding for every interface built in this application. This includes everything from simple static pages like the homepage to dynamic content-driven pages like dashboards and feedback forms.

In this project, HTML is used to define elements such as headings, paragraphs, forms, tables, and buttons. It also enables the structuring of user interface layouts including login forms for different user roles (User, Advocate, and Admin), navigation bars, dashboard panels, modals,

and alerts. Semantic tags such as <header>, <section>, <footer>, and <article> have been used appropriately to enhance accessibility, SEO, and maintainability of the code.

The application ensures a responsive experience by integrating Bootstrap 5 classes directly into the HTML structure. This approach minimizes the need for complex manual CSS coding and ensures a consistent, mobile-friendly design across all devices. For example, login forms are centered on the screen using Bootstrap's grid system (col-md-6 mx-auto), and table layouts are made scrollable and responsive for small screen widths.

6.2 Cascading Style Sheets (CSS)

The visual presentation of the Women Legal Advocate Finder App is managed using a combination of custom CSS and Bootstrap 5. The objective of this styling approach is to provide a clean, modern, and consistent user interface (UI) that aligns with the target users' expectations—particularly women seeking legal aid.

The styling strategy involves using Bootstrap for layout responsiveness and theming, while custom CSS (style.css) is used to personalize colors, fonts, padding, button styles, and hover effects. Bootstrap utility classes such as btn, btn-outline-primary, form-control, table-bordered, and alert-success help maintain UI consistency and improve user experience. Custom CSS extends Bootstrap by modifying specific elements like button sizing, header background colors, image positioning, and padding between form fields.

Special care is taken to differentiate modules visually. For instance, the Admin dashboard uses a formal theme with darker buttons and strong contrasts, while the User and Advocate dashboards use neutral and calming tones to emphasize accessibility and safety. Layouts are kept minimal with ample spacing and larger clickable areas to accommodate users across different devices and tech literacy levels.

6.3 MySQL Server

The backend of the Women Legal Advocate Finder App is powered by MySQL, one of the most widely adopted open-source relational database management systems. The MySQL database provides the structure necessary to store, retrieve, and manage data efficiently.

The database for this application is named women_application, and it consists of normalized tables such as:

- User: stores user registration and login details including name, email, password, city, preferred language, and type of legal issue.
- Advocate: stores advocate profile data, status (active/pending), city, location, experience, and languages known.
- Admin: holds a secure list of admin credentials for platform access control.
- User_problems: links user-submitted problems to their accounts, including case types and problem descriptions.
- Advocate_solutions: links each solution to a specific problem and advocate, including solution content and timestamp.
- Feedback: stores user feedback and rating for each advocate they have interacted with.

Each table uses a primary key (user_id, advocate_id, etc.) and enforces referential integrity through foreign key constraints. The schema ensures efficient query execution and scalability, allowing future additions like message logs or notification histories. Data types and field lengths are selected to support large-scale operations with optimized indexing for quick search and filter operations.

6.4 PHP

The business logic and dynamic functionality of the application are implemented using PHP 8.1. PHP serves as the glue between the frontend interface and the MySQL database. It is responsible for handling data submitted from forms, interacting with the database, managing sessions, processing conditions, and rendering dynamic views.

Each core function is implemented in modular .php files grouped according to their roles:

- user/login.php, user/register.php, user/dashboard.php
- advocate/login.php, advocate/dashboard.php, advocate/search_problems.php
- admin/login.php, admin/dashboard.php, admin/approve_advocates.php

PHP is used to implement authentication by verifying submitted credentials against stored records in the database. It handles session creation and destruction, conditional page redirection based on login status, and validation checks for duplicate entries or incorrect data.

The system uses MD5() to encrypt stored passwords and validates all user input using built-in PHP functions. Common configurations such as database connections are stored in a single file (db/db.php) and included throughout the project using include() or require_once() to promote reusability and reduce redundancy.

6.5 Angular JavaScript

To enhance user experience and minimize page reloads, AngularJS is incorporated into the homepage. AngularJS, a front-end JavaScript framework, is used to control the dynamic content display when toggling between User, Advocate, and Admin login panels.

Angular directives such as ng-show, ng-click, and ng-model are used to bind form visibility and switching logic to HTML elements. This feature provides a smooth Single Page Application (SPA) feel to users, especially at the entry point of the application.

Angular also helps handle client-side form states, making the homepage responsive, interactive, and more efficient, reducing server requests and page load times. This greatly enhances usability and accessibility.

6.6 Advocate Approval System

One of the unique and critical aspects of this application is the advocate approval workflow managed by the admin. When an advocate registers, their account status is initially marked as 'pending'. Admin’s are provided with a dedicated dashboard option to review and approve or reject advocate profiles.

This step ensures that only verified advocates are allowed access to user-submitted legal problems. After approval, the status is updated to 'active', and the advocate gains full access to the dashboard functionalities, including issue viewing and solution posting. This process ensures accountability and builds trust between users and the platform.

6.7 Security Measures

Security is a top priority in the development of this application. The following measures are implemented:

- Session Validation: All protected pages are accessible only if the appropriate session variable is set. If not, the user is redirected to the login page.
- Password Encryption: Passwords are encrypted using MD5 before being stored in the database.
- Role-Based Access Control: Each module (user, advocate, admin) has distinct sessions and cannot access unauthorized sections.
- Form Validation: Both server-side (PHP) and client-side (HTML5/JavaScript) validations prevent SQL injection, XSS, and other common vulnerabilities.
- Logout Management: The logout mechanism is securely implemented to destroy sessions and redirect the user to the home page immediately.

6.8 User Interface and UX Design

The application's user interface (UI) is designed to be clean, friendly, and accessible, especially keeping in mind that the end-users may come from varying educational and digital backgrounds. The use of large buttons, clear headings, and Bootstrap-styled alerts makes navigation intuitive.

Every role — user, advocate, admin — sees only the tools they need. This not only reduces clutter but also enhances usability. Visual indicators, confirmation messages, icons, and search filters are all strategically implemented to make interactions smooth and efficient. Accessibility is ensured through proper color contrast and readable font sizes, and the responsive layout guarantees compatibility with mobile, tablet, and desktop devices

6.9 Maintainability and Scalability

The system is built with a modular directory structure for high maintainability. Each module (user, advocate, admin) resides in its own folder with independent logic, making debugging and enhancements easier.

The code base is documented and follows consistent naming conventions. The separation of concerns (PHP for logic, HTML for structure, CSS for design, and JS for interactivity) ensures that future developers can easily understand and modify the code.

The system can be scaled in the future by adding:

- Real-time messaging
- Document upload for advocates
- Notification system
- OTP login or biometric integration
- Regional language support
- Mobile app version using the same backend

7. DATABASE DESIGN

The success of any web-based information system largely depends on its underlying database design. A well-structured and normalized database not only enhances performance and reliability but also ensures that the system can scale and adapt to future requirements. For the Women Legal Advocate Finder Web Application, the database serves as the central repository for storing all user, advocate, problem, solution, feedback, and administrative data in a secure and organized manner.

The database used in this project is built using MySQL, a popular open-source relational database management system known for its reliability, flexibility, and compatibility with PHP. The database is named women_application and is structured using the principles of relational design. All data entities such as users, advocates, problems, solutions, feedback, and admin accounts are organized into separate tables, with well-defined fields and relationships established through primary and foreign keys.

Each module in the system — User, Advocate, and Admin — interacts with specific sets of tables. For instance, the user table stores essential registration information including name, email, password (stored using MD5 encryption), mobile number, city, and legal preferences. Similarly, the advocate table contains professional details such as location, years of experience, languages known, and their account status (either pending or active). The admin table holds credentials for system-level access, ensuring that only authorized personnel can perform sensitive operations like approving advocate registrations.

When a user submits a legal issue, the details are stored in the user_problems table, which links the issue to the respective user through a foreign key (user_id). Advocates can then view and respond to these issues, and their responses are recorded in the advocate_solutions table, which links each solution to both the problem and the advocate who submitted it. This interconnected structure ensures that the relationships between users, advocates, and their activities are clearly maintained and easily retrievable through queries.

Additionally, the system includes a feedback table, where users can rate and comment on the quality of help received from advocates. This table supports transparency and helps future users assess advocate credibility. Feedback records include ratings, textual comments, the date of submission, and are associated with both the user and the advocate involved.

The entire database follows normalization standards up to the third normal form (3NF), which eliminates redundancy and supports efficient data storage and retrieval. Primary keys are defined for all tables to ensure unique identification of records, while foreign keys maintain referential integrity between related tables. Indexing on frequently accessed fields such as email, city, status, and problem_id ensures that query performance remains optimal, even as the volume of data grows over time.

In addition to its relational integrity and performance optimization, the database is designed with scalability in mind. Its modular structure allows for the easy addition of new tables to support future features such as real-time messaging, document uploads, video consultations, or multi-language support. Because the design separates concerns and keeps data responsibilities within distinct tables, integrating these features would not require fundamental schema redesign.

In conclusion, the database design for the Women Legal Advocate Finder App provides a solid, scalable foundation for data-driven operations. It ensures accurate mapping of real-world entities and their relationships, facilitates secure and efficient data access, and supports the long-term evolution of the system. Through proper normalization, relational integrity, and thoughtful schema planning, the database enables the application to deliver a smooth and reliable experience to users, advocates, and administrators alike.

8. TECHNICAL FEASIBILITY

Technical feasibility refers to the assessment of the technical resources, tools, infrastructure, and expertise required to successfully develop, implement, and operate a system. It plays a critical role in determining whether the proposed system can be built using existing technologies and whether those technologies can support the anticipated functionality, performance, and scalability of the system. For the Women Legal Advocate Finder Web Application, a comprehensive analysis of technical feasibility was conducted before the initiation of the project.

The proposed system is developed using widely available and mature open-source technologies such as HTML5**,** CSS3**,** Bootstrap 5**,** JavaScript**,** AngularJS**,** PHP 8.1, and MySQL. These technologies are not only robust and reliable but also cost-effective and community-supported, which makes them ideal for the development of academic and social welfare applications.

The entire system is hosted and tested using the XAMPP server environment, which includes Apache for web hosting, MySQL for database management, and PHP for server-side scripting. This setup requires minimal hardware and is easily deployable on any Windows, Linux, or macOS system with basic processing and storage capabilities. The system does not require specialized hardware or proprietary software licenses, making it technically and economically feasible for long-term use.

The use of PHP 8.1 ensures compatibility with modern web servers and offers enhanced security, performance improvements, and better error handling. PHP serves as the backbone of the application, managing form submissions, session control, role-based access, and database communication. PHP scripts are modularized, making the application easy to maintain and extend.

For the database, MySQL was selected due to its ability to manage relational data efficiently. It is capable of handling complex queries, relationships, and large datasets with minimal latency. MySQL is also highly compatible with PHP and integrates seamlessly with XAMPP, making it a reliable choice for managing dynamic content such as user records, advocate profiles, legal problems, and feedback submissions.

From a front-end perspective, HTML5 and CSS3 provide the structural and design foundation for the application, while Bootstrap 5 is used to ensure responsive layout design that functions well across desktops, tablets, and smartphones. This enhances usability and accessibility, particularly for women in rural and semi-urban regions who may rely on mobile devices. The integration of AngularJS on the homepage improves interactivity and allows for a smooth user experience by switching between login options dynamically without requiring page reloads.

The application architecture is designed to be modular, allowing for the independent development and testing of components such as login systems, dashboards, issue reporting modules, and feedback systems. This modular design significantly improves scalability and maintainability. It also ensures that new features such as document uploads, real-time messaging, or AI-based recommendations can be integrated with minimal disruption to the core system.

Additionally, the development team possesses the required technical skills to handle all aspects of the project. The programming languages, tools, and frameworks used are well-documented, and development resources are readily available through online communities and technical documentation.

In summary, the technical feasibility of the Women Legal Advocate Finder App is thoroughly established. The selected technology stack is modern, scalable, cost-effective, and fully capable of supporting the current and future demands of the system. The development environment is stable, the infrastructure requirements are minimal, and the system can be deployed in local environments or scaled up for hosting on cloud servers when needed. Thus,

from both a resource and technical standpoint, the system is completely feasible to implement and expand.

9. SYSTEM TESTING

System testing is a vital phase in the software development lifecycle, ensuring that the developed system functions as expected and satisfies all defined requirements. The main objective of testing is to identify and rectify errors before the final deployment of the system. In the development of the Women Legal Advocate Finder Web Application, a rigorous testing strategy was adopted to ensure functional accuracy, reliability, performance, and user satisfaction across all modules — User, Advocate, and Admin.

The testing phase began with unit testing, where individual components such as registration forms, login authentication, and database insertion logic were tested in isolation. Each script file, including login, registration, feedback submission, and session management, was independently verified for input validation, field completion, and expected behavior under both valid and invalid conditions. For instance, entering incorrect credentials in login forms was expected to trigger an error alert, while valid inputs were expected to redirect users to their respective dashboards.

Following unit testing, integration testing was performed to verify the interaction between different modules. The integration between the user problem submission form and the advocate dashboard was tested thoroughly. Problems submitted by users had to correctly appear in the advocate's view interface. Likewise, advocate solutions were expected to be fetched accurately and displayed to users in the solution view page. These tests confirmed the correct flow of data between the front-end interface, PHP server-side scripts, and the MySQL database.

System testing was then conducted as a whole to ensure all modules performed seamlessly as a unified application. Complete workflows were tested, including registration, approval, login, problem submission, solution posting, feedback writing, and logout functionality. Each module was accessed using different user roles to validate access control and session management. Tests also confirmed that advocates could only log in after admin approval, and that feedback visibility was limited to the intended advocate.

One important focus area during testing was security testing. Session-based access was thoroughly verified to ensure that pages could not be accessed directly via URL manipulation.

Attempts to bypass the login screen by directly navigating to dashboard URLs without proper session variables resulted in redirects to the login page, thereby confirming secure session handling. Additionally, all password fields were hashed using MD5, and form inputs were tested against SQL injection attempts.

The system also underwent usability testing. Volunteers from non-technical backgrounds were asked to use the application and provide feedback on ease of use, navigation, readability, and overall experience. Based on their feedback, minor interface adjustments were made to improve the visibility of buttons, alignment of form fields, and clarity of dashboard navigation.

Several minor bugs and issues were identified and resolved during testing. For example, an initial error allowed advocates to log in before approval, which was fixed by implementing a status check in the login script. Another issue caused feedback to display for all advocates rather than the specific recipient; this was corrected by filtering feedback based on session advocate_id. All such bugs were documented and resolved in iterative testing cycles.

After successful testing of all components, the system was considered stable and ready for deployment. The system not only met the initial functional requirements but also delivered a smooth and intuitive user experience, confirming the effectiveness of the testing process. The robust testing methodology used in the project has ensured a high-quality, secure, and reliable web application ready for real-world use.

10. CONCLUSION

The development of the Women Legal Advocate Finder Web Application has been a comprehensive and purposeful journey aimed at solving a real-world social challenge—connecting women in need of legal assistance with trusted and verified legal advocates. The project has successfully transformed an initial idea into a fully functional, user-friendly, and modular web platform that addresses the need for accessible, efficient, and secure legal aid.

Throughout the course of development, the project adhered to a structured methodology, beginning with requirement analysis and proceeding through system design, implementation, testing, and deployment. Each module—User, Advocate, and Admin—was carefully designed and integrated to ensure a smooth and logical flow of information and functionality. Users can now register securely, submit legal problems, receive tailored solutions from advocates, and provide feedback on their experiences. Advocates can manage user cases and interact responsibly, while administrators oversee and moderate the system by approving or rejecting advocate registrations, thereby maintaining a professional and verified pool of legal service providers.

The use of technologies such as HTML5**,** CSS3**,** PHP 8.1**,** MySQL**,** Bootstrap 5, and AngularJS contributed significantly to the reliability and responsiveness of the system. These technologies ensured a consistent user interface across devices, dynamic interaction without page reloads, robust backend performance, and secure session-based access control.

Testing played a crucial role in validating the system's correctness and usability. Every form, page, and data flow was rigorously tested to eliminate errors, improve functionality, and ensure that the end-users could interact with the platform effectively. Based on feedback from test users, the application underwent several rounds of improvement to enhance user experience, increase security, and strengthen session handling mechanisms.

One of the most impactful features of the system is the advocate approval workflow, which ensures that users receive legal advice only from authenticated and approved legal professionals. This feature enhances user trust and promotes a safe environment for sharing

sensitive legal information. Another strong element is the feedback system, which gives users a voice and advocates a way to measure and improve their performance.

While the project has achieved all its stated goals and delivered a practical solution, it is also designed to be forward-compatible. The current system architecture allows for easy integration of future features such as document uploads, OTP verification, chat systems, and multilingual support. These enhancements, combined with a mobile application version, can further extend the reach and impact of the platform, making it a comprehensive tool for legal empowerment.

In conclusion, the Women Legal Advocate Finder Web Application stands as a socially responsible and technically sound solution. It bridges the gap between women in distress and accessible legal support, leveraging technology for societal betterment. The project not only fulfills its intended objectives but also lays a strong foundation for future expansion and real-world deployment.

11. FUTURE ENHANCEMENT

The Women Legal Advocate Finder Web Application has been designed with a flexible and modular architecture, which opens the door to numerous possibilities for future enhancements. Although the current version fulfills the fundamental requirements of connecting women with verified legal advocates and streamlining the legal assistance process, there are many advanced features that can be integrated to enrich its functionality, scalability, and user engagement.

One of the prominent future enhancements is the implementation of a PDF converter and export feature. While initially excluded to streamline performance, the inclusion of a secure and efficient PDF generation system will allow users to download their submitted issues, received responses, and feedback logs for their records. Advocates will also be able to export user problems, their own responses, and rating summaries in downloadable PDF format. This feature is particularly useful for documentation, legal proceedings, and offline consultations. It will be implemented using widely supported PHP libraries such as FPDF or TCPDF to ensure high compatibility and customization.

Beyond this, the system could benefit greatly from a real-time messaging system, enabling direct and immediate communication between users and advocates. This would eliminate delays in legal correspondence and help users clarify doubts instantly.

The platform also plans to introduce document upload capabilities, allowing users to attach legal papers, case files, or evidence with their problem submissions. Advocates could, in turn, upload solutions, legal templates, or procedural guidance files to support the resolution process.

Another powerful enhancement would be OTP verification during registration and sensitive actions, enhancing security and account validation. This could be implemented via SMS or email using tokenized one-time passwords for added authentication.

To extend the reach and accessibility of the platform, the system will eventually support a multilingual user interface, allowing users and advocates to interact with the application in their

preferred regional languages. This would greatly benefit users in rural and non-English speaking areas.

Additionally, an analytics dashboard for admin would be valuable. It would provide insights into user behavior, frequently posted legal issues, most active advocates, and feedback ratings. Such a dashboard would help in monitoring platform usage and improving service delivery.

The application also has strong potential to be developed into a mobile app. With a native mobile version for Android and iOS, users could receive notifications, chat with advocates, upload images directly, and get real-time assistance on the go.

In the long term, the integration of AI-based legal chatbots could automate responses to frequently asked questions, guide users through registration or legal steps, and help categorize legal issues for better routing to the right advocate.

Moreover, a calendar and booking system could allow users to schedule appointments with advocates, bringing the platform closer to functioning as a complete legal management tool.

While the existing version of the Women Legal Advocate Finder App meets the current requirements, its scope for growth is vast. The addition of features such as PDF exporting, real-time communication, enhanced security, mobile access, and multilingual support will transform it into a powerful digital legal ecosystem. These future enhancements will ensure greater accessibility, professionalism, and efficiency, ultimately making legal help more approachable for women across regions.

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