1. Title of the invention:

Case Companion – Your Case, Our Commitment

2. Specify field of technology to which the invention belongs to:

Artificial Intelligence, Legal Tech, Natural Language Processing (NLP), Human-Computer Interaction

3. List all the currently existing technologies/ products that are similar to your invention:

Existing Systems :

1. LawRato

   Website: https://lawrato.com

   Key Features:

   1. Natural Language Processing to understand and respond to user queries in Chinese.
   2. Dialogue Management System that handles multi-turn conversations.
   3. Knowledge Base Integration to provide domain-specific answers (e.g., customer service, legal queries).

2. VakilSearch

   Website: https://vakilsearch.com

   Key Features:

   1. Offers legal document drafting and services such as will creation, affidavits, and rental agreements.
   2. Provides business and tax compliance services, including trademark registration, company formation, and GST filing.
   3. Enables users to consult legal experts for paid services with end-to-end service tracking.

3. Legal Services India Government Portal (NALSA)

   Website: https://nalsa.gov.in

   Key Features:

   1. Allows users to check eligibility for free legal aid services.
   2. Provides contact information and directories for state and district legal services authorities.
   3. Offers educational material including guides and manuals on legal rights and procedures under Indian law.

Patents :

1. Chinese Patent ZL200410053749.9 – Xiao-i: A Chatbot System

Patent Link: Xiao-i – Wikipedia

Key Features:

1. Natural Language Processing to understand and respond to user queries in Chinese.
2. Dialogue Management System that handles multi-turn conversations.
3. Knowledge Base Integration to provide domain-specific answers (e.g., customer service, legal queries).

2. EP3132873A1 – Artificial Intelligence Chatbot for Legal Consulting

Patent Link: Google Patents - EP3132873A1

Key Features:

1. Automated Legal Consultation based on user input through a chat interface.
2. Document Retrieval System for accessing relevant laws and legal precedents.
3. Multi-language Support to serve users in different jurisdictions.

3. US10224375B2 – Machine Learning System for Legal Document Analysis

Patent Link: Google Patents - US10224375B2

Key Features:

1. Legal Document Classification using supervised learning techniques.
2. Entity Recognition and Tagging for terms like parties, dates, and legal actions.
3. Summarization Engine to extract key insights and clauses from lengthy legal texts.

Technical details of the invention

1. Background of the invention:

Access to legal information in India has long been a complex challenge, particularly for vulnerable and marginalized communities. Legal resources are often scattered, written in complex language, or available only in English, making them inaccessible to the general public. Despite the introduction of legal reforms such as the Bharatiya Nyaya Sanhita (BNS), awareness of legal rights remains low, especially among non-urban populations, women, children, and minority groups. While legal helplines and websites do exist, they often lack interactivity, multilingual support, or real-time assistance, which are critical for users with urgent or sensitive queries [1].

In parallel, the use of AI-powered assistants and chatbots has grown significantly in customer service and healthcare, but their application in the legal domain, especially in India, is still at a nascent stage. There is a

significant opportunity to leverage modern technologies—like Natural Language Processing (NLP), AI models such as Gemini, and bilingual interfaces—to democratize legal information and provide accessible, understandable legal assistance [2][3].

The invention, titled Case Companion, addresses these gaps through an AI-powered legal chatbot platform that offers bilingual (Hindi and English) support for legal queries. The platform is built to assist users in understanding their rights and navigating legal processes with ease. It categorizes information based on demographic groups such as women, children, and senior citizens, aligning legal advice with the user's specific needs [4][5].

The chatbot is designed not only to answer common legal queries but also to guide users toward relevant legal frameworks, provide references to the BNS, and share links to government support services. A secure user authentication system ensures personalized access and history tracking. An admin dashboard allows for continuous improvement of the chatbot through supervised learning and user feedback [6][7].

By combining accessible language, bilingual capability, categorized knowledge delivery, and real-time AI interaction, Case Companion aims to become a transformative tool in legal empowerment. It bridges the gap between complex legal texts and everyday understanding, allowing users to seek clarity without the need for legal intermediaries. This background sets the stage for a novel, practical, and socially impactful solution that meets a pressing need in India's legal landscape [8][9].

2. Drawbacks in existing state-of-art and how your invention helps to overcome such drawbacks:

Drawbacks in Existing Platforms

Current legal information platforms in India suffer from several shortcomings that hinder accessibility, comprehension, and engagement, especially for the general public and marginalized communities. These limitations make it difficult for everyday users to access and understand their legal rights and remedies. The primary drawbacks include:

- Lack of Support for Regional Languages like Hindi:
  Most existing platforms provide content only in English, ignoring the linguistic diversity of India. This alienates a large segment of the population—particularly rural users—who are more comfortable with regional languages. The absence of Hindi support significantly limits outreach and inclusivity [7].

- No Conversational or Interactive Chatbot Interfaces:
  Government websites and legal portals present information in static formats like PDFs or long articles. They lack any form of dynamic interaction, such as chatbots, that could guide users step-by-step through their legal concerns. This results in a frustrating experience for users seeking instant answers.

- Absence of Real-Time Query Resolution:
  They are either forced to sift through pages of documents or consult paid professionals, making real-time assistance inaccessible and unaffordable for many [11].

- Generic Legal Content Not Tailored to Indian Laws like BNS:

Many AI tools, such as international chatbots, are trained on general or foreign legal systems. They often fail to understand Indian-specific laws like the Bharatiya Nyaya Sanhita (BNS), leading to inaccurate or irrelevant legal guidance.

- Non-Intuitive Interfaces for Legally or Technologically Unaware Users:
  The design and language of most legal platforms are too technical, with legal jargon and poor navigation. Users with no legal or tech background often find these interfaces confusing or unusable.

How Case Companion Overcomes These Challenges

- Bilingual Chatbot with NLP Support for English and Hindi
  Enables users to interact in their preferred language, breaking language barriers and enhancing user comfort.

- Indian Law–Specific Responses, Including BNS
  Delivers legal guidance based on Indian statutes, ensuring relevance, accuracy, and compliance with local legal frameworks.

- Multiple Login Options (Email, Google, OTP)
  Simplifies onboarding for users of all technical backgrounds, with flexible authentication methods.

- User-Friendly, Mobile-Optimized Interface
  The platform is designed for clarity and simplicity, enabling even first-time users to navigate with ease on mobile or desktop.

- Admin Panel for Content Updates and Chatbot Training
  Facilitates real-time improvements, content moderation, and response accuracy through active admin involvement.

By combining legal intelligence with an inclusive design, Case Companion fills the gap left by current platforms—offering real-time, bilingual, and user-friendly legal support for all.

3. The technical features of your invention which are different from the existing inventions/applications:

Case Companion introduces several novel and technically distinctive features that set it apart from current legal information systems. While most existing platforms focus on static, monolingual content delivery or limited automation, this invention incorporates an intelligent, bilingual, and modular architecture with user-focused design enhancements. The following technical innovations define the uniqueness of the proposed system:

1.Bilingual AI Chatbot Integration (English and Hindi)

Unlike conventional platforms that offer legal content primarily in English, Case Companion employs a Natural Language Processing (NLP)–enabled chatbot capable of understanding and generating responses in both English and Hindi. This significantly increases accessibility for non-English-speaking users, particularly in rural and semi-urban areas of India.

2.Modular System Architecture
The system is architected in a modular fashion, consisting of independent yet interconnected components such as:

- Frontend (React): User interface for queries, profile management, and chat.
- Backend (Django): Manages API requests, user authentication, and data processing.
- Database Layer (SQL): Stores user profiles, chat histories, legal topics, and admin content.
- LLM API Module (Gemini/LLM): Handles chatbot queries and legal answer generation. This modularity ensures scalability, maintainability, and ease of future upgrades.

3.Dynamic Content Management via Admin Panel:
Unlike existing hardcoded or static-content platforms, Case Companion provides a dedicated administrative interface through which legal content, chatbot prompts, and knowledge modules can be updated dynamically. This allows real-time corrections, content customization, and evolving legal compliance.

4.User-Centric Chat History and Profile Management:
The system supports personalized user experiences by storing past chat conversations and allowing users to manage their account details. Such user-level interaction tracking is generally absent in existing legal aid systems.

5.Legal Query Structuring Based on Indian Legal Framework (BNS):
Responses generated by the chatbot are grounded in the Bhartiya Nyaya Sanhita (BNS), ensuring legal precision and contextual relevance. In contrast, most AI systems use generic legal datasets or international statutes, reducing their reliability for Indian users.

Together, these technical features enable Case Companion to serve as a robust, localized, and user-adaptive platform for accessible legal assistance.

4. Main advantages of your invention:

The invention, Case Companion, introduces a range of practical and technical advantages designed to overcome the limitations of conventional legal information systems. These benefits contribute significantly to improving public access to justice and enhancing user experience, particularly for individuals with limited legal knowledge or digital literacy.

- Enhanced Legal Awareness for Non-Experts
  By providing simplified legal explanations and conversational responses, the system empowers users without formal legal training to understand their rights and available remedies. The chatbot-based interface demystifies legal jargon, promoting awareness at the grassroots level.

- Bilingual Interface for Greater Inclusivity
  The AI chatbot supports both Hindi and English, enabling users from diverse linguistic backgrounds to access legal assistance. This inclusivity is critical in a multilingual country like India, where a significant portion of the population is more comfortable with regional languages.

- Scalable and Modular System Design

Built on a modular architecture, the platform separates concerns across user management, chatbot processing, and content handling. This structure allows easy maintenance, future expansion, and integration with other systems or APIs.

- Interactive Chat-Based User Interface
  The real-time, conversational nature of the interface ensures that users stay engaged while seeking legal support. This dynamic interaction model is more intuitive and user-friendly than static content delivery formats.

- Admin-Driven Content Management
  Administrators can easily modify, update, and expand the chatbot's legal knowledge base via a user-friendly dashboard. This allows for continual refinement and ensures that the system stays relevant with evolving legal standards, such as updates to the BNS.

- Fully Digitized and Web-Accessible
  As a browser-based solution, Case Companion can be accessed from any device with internet connectivity. This ensures widespread availability without requiring any app installation or specific system configuration.

Collectively, these advantages make Case Companion a robust, adaptable, and socially impactful tool for delivering legal information in an accessible and reliable format.

5. Complete description of the invention:

a. Components/Embodiments Involved:

- User
  The User Module is designed for user registration and login, ensuring secure access through email/password or OTP. It provides an interactive chatroom powered by an AI chatbot, enabling users to ask legal questions and receive clear, understandable responses in a bilingual format. The module also includes chat history, where users can review previous conversations, as well as a Legal Info Explorer for browsing categorized legal content in an animated, user-friendly interface. Additionally, it features a Profile Manager for users to manage their details, passwords, and language preferences.

- Admin
  The Admin Module provides functionalities for managing user accounts, allowing admins to view, modify, or deactivate user profiles. It also enables admins to edit chatbot responses by accessing and updating the legal knowledge base, ensuring that information is accurate and current. Additionally, the module allows admins to manage legal content, including uploading new rules or modifying existing ones. The Profile Settings feature enables admins to manage their own credentials and configure system-level settings for optimal performance.

- Chatbot
  The Chatbot API Module is responsible for processing user queries by determining their intent and mapping them to relevant legal content. It integrates with the Gemini API to generate intelligent,

personalized legal responses. The module also supports multilingual interactions, allowing users to receive responses in multiple Indian languages. The Context Memory feature ensures that the chatbot remembers the conversation context within a session, providing accurate responses to follow-up questions without the need for repeating previous information.

- Database
  The Database includes key tables for storing essential data. The Users table stores credentials, preferences, and chat history references for secure interactions. The Admin table holds login details and permissions for access control. The Chat History table logs interactions with timestamps for review and analysis. The Contact Support table records user queries for admin follow-up. Additional tables such as the Legal Knowledge Base store categorized legal rules and IPC sections for accurate responses. Audit Log tables are implemented to track system activity for security and debugging. The relational structure ensures data integrity, easy maintenance, and seamless integration with the chatbot interface.

b. How are the components installed/arranged?

- The frontend, developed using HTML, CSS, and JavaScript, communicates with the Django backend, providing a seamless interaction between the user interface and the server, which ensures a smooth and dynamic user experience. This integration optimizes data flow between the client and server, enhancing functionality and speed.

- Admin and user modules are easily accessed via role-based dashboards, allowing for personalized and secure access to the system's features. These dashboards provide user-specific controls, ensuring that each user has the appropriate access to their functionality, such as viewing legal queries or updating content. Admins can monitor system activity, manage user permissions, and update legal databases. Users benefit from a simplified interface that highlights relevant features, enhancing usability and engagement.

- The Chatbot API plays a crucial role in bridging user inputs with Gemini's AI, enabling it to process and analyze queries intelligently, providing accurate, context-aware responses to users' legal concerns. By leveraging advanced Natural Language Processing (NLP) algorithms, the API ensures that user interactions are understood and interpreted effectively, allowing the system to offer personalized and relevant legal advice based on the user's specific needs and circumstances. This interaction ensures that users receive timely, accurate responses, enhancing their overall experience and trust in the system.

- All content, user profiles, and sensitive data are securely stored in a well-structured SQL database, ensuring that personal and legal information is protected, while allowing for efficient retrieval and management of data to enhance system performance and user experience. The database is designed to be scalable, ensuring it can handle large volumes of data while maintaining security and fast access times for users. Regular backups and access control mechanisms are implemented to prevent data loss and unauthorized access.

c. Figures/Structures:

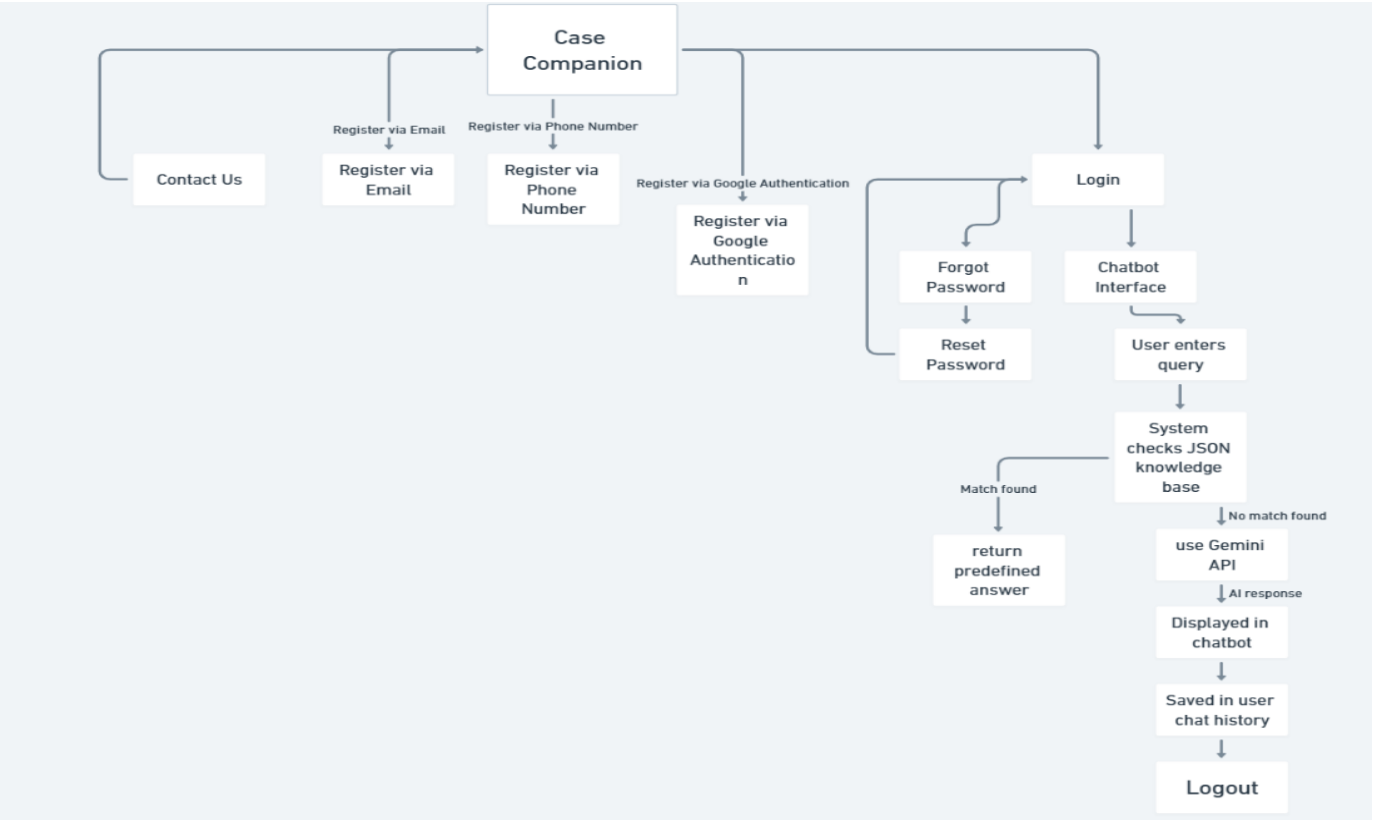

Figure 1- Operational Diagram

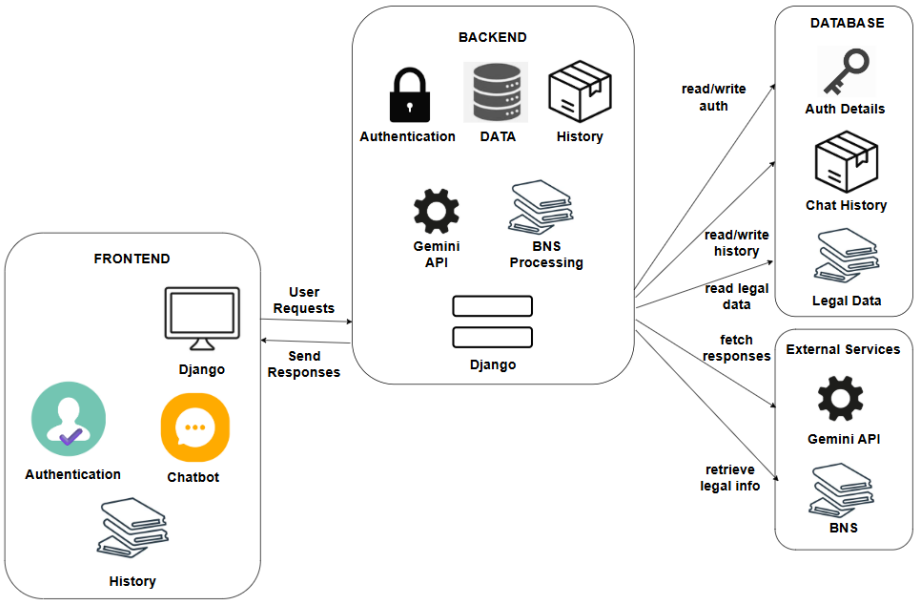

Figure 2 - Detailed System Architecture

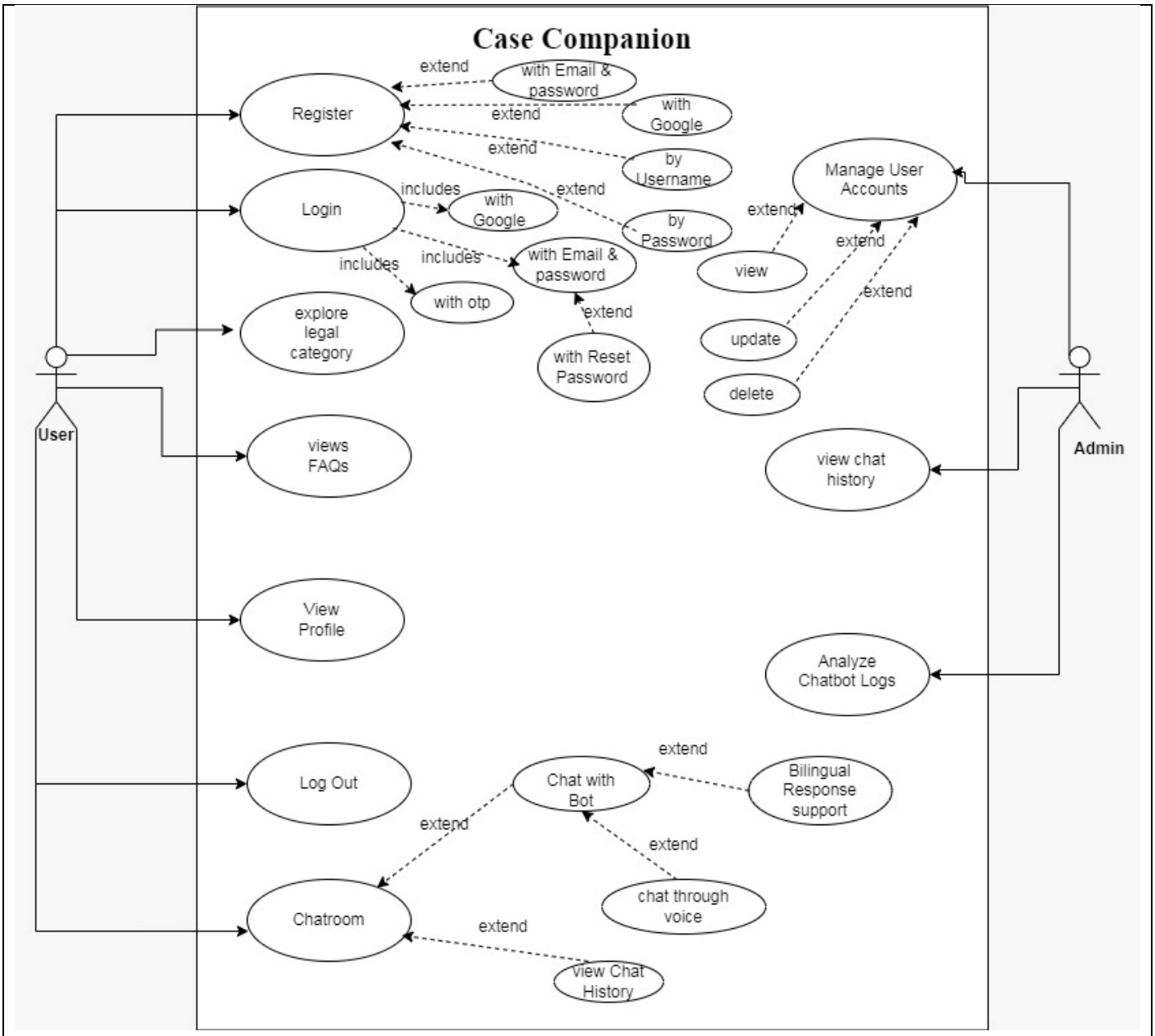

Figure 3 - System Overview

1. List of novel features in the invention –

- Bilingual chatbot support for legal questions (Hindi & English)
- Integration with Indian legal frameworks like the BNS for precise responses
- Real-time user-chatbot interaction with context retention
- Modular design enabling easy admin control over chatbot and content

- Multi-authentication support including Google OAuth and OTP
- Chat history tracking for transparency and continuity
- Categorized legal knowledgebase with user-friendly summaries

These features collectively establish Case Companion as a practical, inclusive, and intelligent tool for improving access to legal information.

2. List of keywords relevant to the invention:

LegalTech, AI Chatbot, Bilingual Legal Assistant, Indian Law, Legal Awareness, Natural Language Processing, Case Companion

3. Any other relevant details:

The invention has strong applicability for NGOs, legal aid groups, and government portals aiming to spread legal literacy. It is designed with scalability and regional adaptability in mind for wider deployment across Indian states.

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