

# The Role of Websites In Reviving Traditional Knowledge of Herbal Medicine

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**Abstract-** This paper presents a digital platform that serves as a comprehensive resource for the study of medicinal plants used in Ayurveda (Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homeopathy). It provides detailed information on the characteristics and uses of these plants, aimed at students, physicians, and those interested in natural medicine. The platform combines traditional knowledge with modern technology, fosters a deeper understanding and appreciation of medicinal plants, and preserves this valuable wisdom for future generations

**Keywords-** Digital platform, medicinal plants, AYUSH, Ayurveda, Yoga and Naturopathy, Unani, Siddha, Homeopathy, traditional medicine, natural healing, plant properties, herbal knowledge, education.

## I. INTRODUCTION

For centuries, traditional systems of medicine have harnessed the incredible healing power of plants to promote health, well-being and harmony. From the aromatic spices in your kitchen to the vibrant herbs growing in your garden, medicinal plants have always been a part of our lives, waiting to be explored and used.

Our website is designed as a comprehensive guide for all those interested in the rich world of medicinal plants and their applications in AYUSH (Ayurveda, Yoga and Naturopathy, Unani, Siddha, and Homeopathy). Whether you are a curious student, a dedicated practitioner, or simply interested in learning about natural healing, this platform offers something for everyone.

Here you will find a wide range of medicinal plants, including their properties, therapeutic uses and roles in the AYUSH system of medicine. By creating this resource we aim to bridge the gap between ancient tradition and modern knowledge, encouraging a deeper understanding and appreciation of the wisdom behind these practices.

Our job is not only to educate but to inspire collaboration and the preservation of this valuable knowledge for future generations. Together we will celebrate and sustain

the heritage of medicinal plants and ensure that their benefits continue to bring health and harmony into our lives.

This paper serves as a foundation for understanding how digital channels play an important role in democratizing access to traditional medical wisdom and promoting education, research and sustainable practices.

## II. RELATED WORK

- **A New Comprehensive Database:** Building a massive library of information on medicinal plants and their uses in the Ayurveda, Siddha, and Unani Systems of Medicine. This database will be the all-in-one stop for anyone looking to get to know the properties, benefits, and uses of these amazing plants.
- **Updated and Expanded Platform:** Continuously update and expand our platform to embrace new information and research and resources. This means that you will always have access to the newest knowledge and insights in medicinal plants and AYUSH.
- **Modular and Scalable Design:** Our platform is designed to be flexible and adaptable, so we could easily add new features and functionality as we grow. That means that we could rapidly respond to changing needs and trends in the world of AYUSH and medicinal plants.

## III. METHODOLOGY

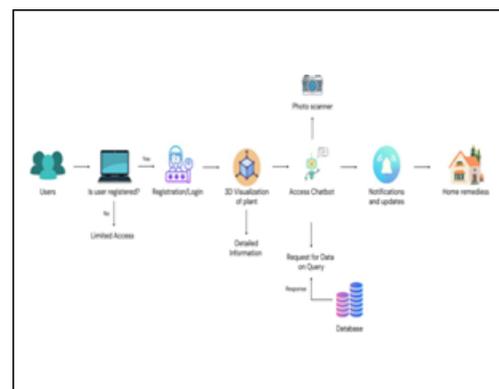


Fig. 1: Overview of the System

**Project Requirements**

Functional Requirements:-

- User Registration and Authentication: Provide the facility for user registration.
- Plant Identification: Ability to upload or scan pictures of plants and find identification.
- Plant Profiles: Knowledge about the characteristics and medicinal use of a plant as well as care tips.
- Notification: Service for newly discovered plants and home remedies.
- Chatbot Support: Real-time support for user queries with a conversational interface.

Non-Functional Requirements:-

- Scalability: The system needs to scale up with the growing number of users and an expanded plant database.
- Front-end: To create the website HTML, CSS, JavaScript, and React is widely used.
- Back-end: Python using Django/Flask or Node.js for server- side logic.
- Database: Plant profile, user data, and logs may be stored in MongoDB or PostgreSQL.
- Cloud Services: AWS, Google Cloud, or Azure for hosting, storage, and scalability.

**IV. RESULTS AND DISCUSSION**

**1. User Registration:**

Unregistered Users:-

They are able to use the system with restricted functionalities. They can, in turn, only perform basic identifications of plants or get limited information. They have no option of saving their identified plants and receiving personalized notifications.

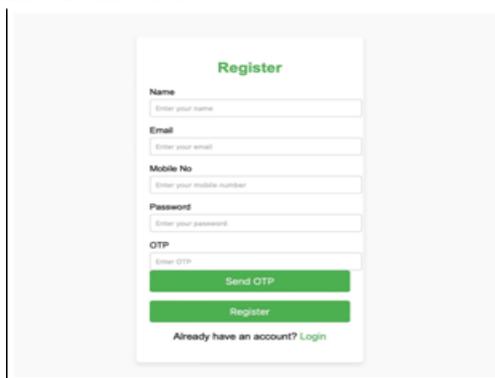


Fig. 2: Registration page

Registered Users:-

An account would be created with username, email address, and password. Additional features, such as single sign-on (SSO), would be available to make registration easier. Benefits.

All feature will be available that their saved identified plant will be saved in a personal list. Personalized notifications and updates on the saved plants. History of identified plant.

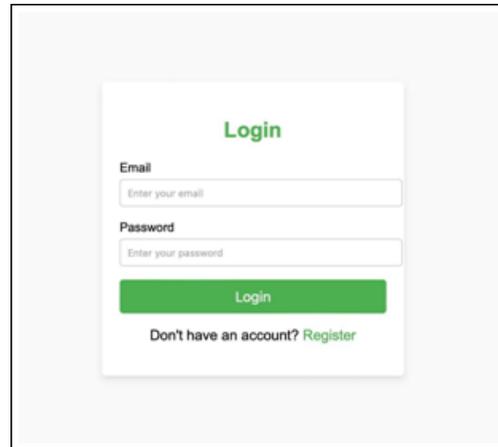


Fig. 3: Login page

**2. Plant Identification:**

Core Functionality: This feature employs the camera of the device to identify plants from photos taken by the user. Photo Scanner,

Enable users to upload a picture of a plant, or scan the plant in real-time using the live camera feature. The image will be processed within the system, with algorithms based on AI model. 3D Visualization: The system will make an interactive 3D model of the plant following identification. It enables users to rotate, zoom, and look at the plant from different angles. This increases the accuracy of the identification of the plant and serves a very visual and interactive way. Technologies involved with this are photogrammetry or 3D modeling tools. If the identification is inconsistent, the user can either scan or even provide suggestions to enhance the system.



Fig. 4: Plant Identification

3. **Information and Support:** Goal: Provide all-inclusive information on the care of plants and enhanced features that will enable the user to handle the plant. —

All Information The system automatically loads the profile of an identified plant which includes: Common name and scientific name Origin/ Description of the growth habits and characteristics. Ideal growing conditions, such as lighting, soil, water, and temperature. Tips for its propagation and maintenance. Potential pests, diseases, and fixes.



Fig. 5: Detailed information

4. **Home Remedies:**

This will give hints at possible uses of the plant in folk or practical ways, like herbal teas, skincare applications, or medicinal properties, when possible. Recipes or preparation methods may also be shown to utilize plant properties optimally.



Fig. 6: Home remedies

5. **Notifications and Updates:** Personalized alerts will receive based on the needs of each plant, including:

Notifications can be received as in-app alerts, emails, or push notifications.

6. **Chatbot Interface:** Goal: To make it accessible for customers to have a simple conversational interface to make inquiries and seek help. User Experience: The user can interact with the chatbot on following grounds: Seeking information related to plant care. Access data from plants identified before. Obtain assistance with problem-related plant health.
7. **Doctor Info and Contact:** Names and qualifications of Ayurvedic, Unani, Siddha, or Homeopathic doctors. Phone numbers, email, or WhatsApp links. Short verified herbal tips directly from doctors—like safe dosages or what to avoid. Suggestions for when to see a doctor instead of relying

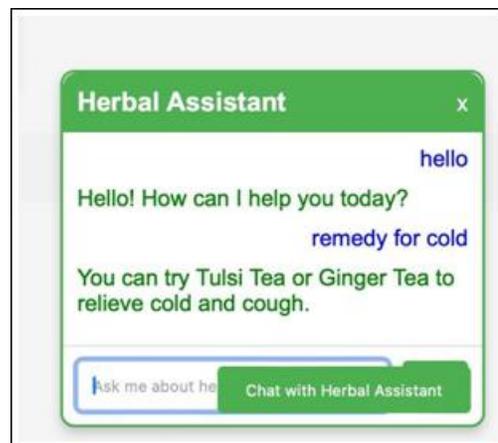


Fig. 7: Herbal Assistant

solely on home remedies (e.g., for chronic illnesses, allergies, or pregnancy) or or submit queries online.



Fig. 8: Doctor Info and Contact

8. **Feedback System:** The feedback feature of your Digital Herbal Garden website is a valuable tool that allows users to share their opinions, suggestions, or concerns about their experience using the platform.

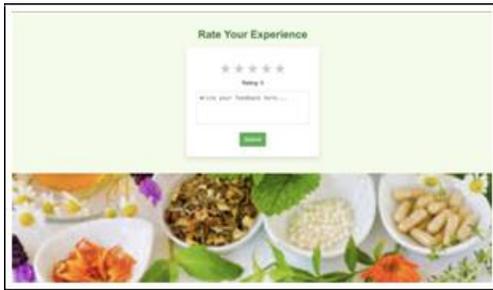


Fig. 9: User Feedback



Fig. 11: Bar chart showing the most frequently searched herbal plants by users.

**9. Database Interaction:**

The robust database stores such data as plant profiles, user data, and care tips that power the chatbot. It employs natural language processing (NLP) algorithms to ensure prompt and precise replies. NLP allows the chatbot to interpret the user’s queries even if laid down in ordinary language.

**10. Advanced Features:**

The help of multilingual support reaches users in all parts of the world. Voice Recognition: Interacts with users via voice commands. Learning Capabilities: It keeps on improving itself and becomes more personalized and accurate as it involves more learning from user interactions over time.

**V. ANALYSIS**

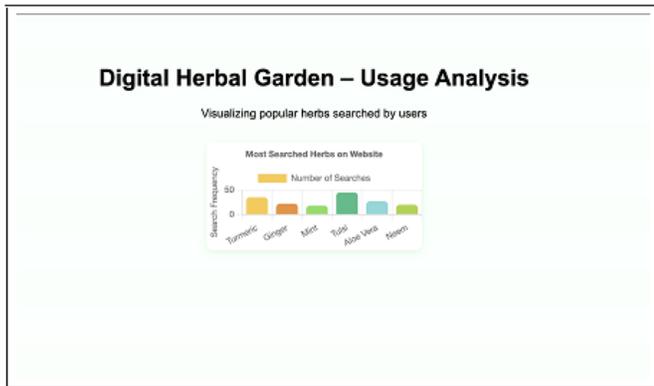


Fig. 10: Popular herbs searched by users

We analyzed user interaction data and identified the top herbs searched using our chatbot. As shown in Figure 11, Tulsi received the highest attention, followed by Turmeric and Aloe Vera, which confirms user inclination toward familiar and commonly recommended remedies. The chatbot’s ability to quickly offer detailed insights into these popular herbs indicates the users’ preference for well-known medicinal plants that are frequently used in daily health practices.

We analyzed the frequency of user requests for remedies related to common health issues such as cold, stress, acne, digestion, and immunity, and the results are depicted in Figure 12. As shown, the majority of users searched for remedies for cold, followed by stress, digestion, and immunity. This highlights the high demand for cold-related remedies, suggesting that users are more likely to seek natural solutions for seasonal illnesses and everyday health concerns. The lower search interest in remedies for acne and immunity indicates that while important, these issues are not as pressing for users compared to common ailments like cold and stress.

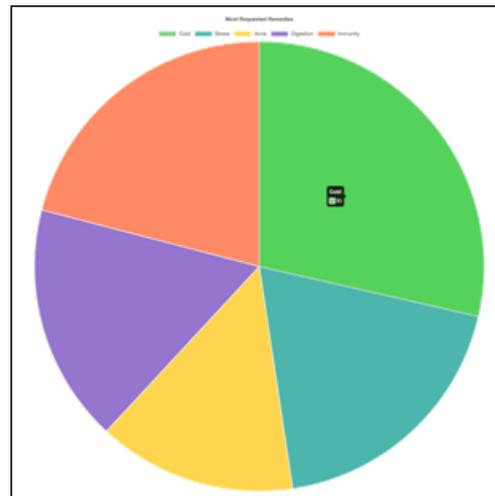


Fig. 12: Pie chart illustrating the distribution of remedy queries.

Figure 13 illustrates the analysis of user feedback ratings. It is evident from the chart that a significant portion of users rated the website experience positively, with the majority giving a rating of 4 or 5 stars. This shows that the platform is well-received by the users, indicating satisfaction with the information provided and overall user experience. The positive ratings also reflect the effectiveness of the layout, ease of navigation, and the valuable information offered.



Fig. 13: Line graph of user feedback ratings over time.

## VI. CONCLUSION

The developed platform offered here is the bridge between traditional wisdom and modern technology, and offers a simple but comprehensive resource for the study of medicinal plants in Ayurveda, Yoga, Naturopathy, Unani, Siddha, and Homeopathy.

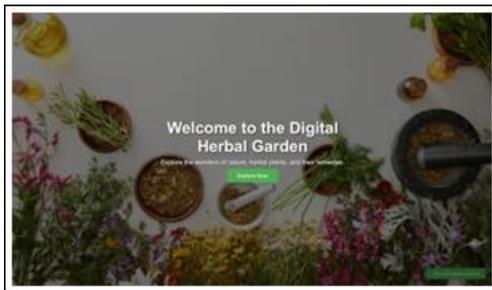


Fig. 14: Digital Herbal Garden

The platform caters to various audiences, including students, health professionals, and natural medicine enthusiasts which provides user-friendly features.

This initiative is not only opening up the availability of ancient knowledge but also making it sustainable for the future.

Through the platform, innovation and commitment therefore encourage deeper awareness and appreciation of how medicinal plants play a role in holistic health and wellness.

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