



SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)
Category - I University by UGC
Accredited "A++" by NAAC | Approved by AICTE
www.sathyabama.ac.in

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Codegene - Skill Enhancement Project

GREEN INDIA (GROW GARDEN)

PROJECT STUDENT
Varsha.S.V, 43110981

AGENDA

- Abstract
- Existing System
- Proposed System
- Advantages
- Disadvantages
- Hardware Requirements
- Software Requirements
- Modules
- Module Description
- Sample Output
- Conclusion

ABSTRACT

The **Grow Garden – Green India** web app is designed to educate users about different plant categories and their uses. Built with **React.js**, it provides an organized, interactive interface displaying images, descriptions, and links for each plant type. The project promotes environmental awareness, sustainable gardening, and a greener lifestyle by helping users understand the value and diversity of plants in everyday life. It also motivates individuals to grow and care for plants responsibly. Overall, the system encourages people to contribute to a cleaner and greener India.

EXISTING SYSTEM

- People mainly rely on **books, websites, or YouTube videos** to learn about plants, which are often unorganized and time-consuming to search.
- There is **no single platform** that categorizes plants based on their uses (food, medicinal, ornamental, etc.) in a structured way. Traditional gardening knowledge is **limited to experts or hobbyists**, making it hard for beginners to identify and understand plants.
- Lack of **interactive and user-friendly digital tools** reduces public interest in sustainable gardening and plant awareness.

PROPOSED SYSTEM

- A web-based platform built using **React.js** to **categorize and display plant information**.
- Provides **images, descriptions, and links** for each plant type.
- Promotes environmental awareness and sustainable gardening habits.
- Offers an interactive and **user-friendly interface** for easy learning.
- Can be expanded with future features like plant care tips and identification tools.

ADVANTAGES

- Encourages **environmental awareness** and green living.
- Provides **organized and easy** access to plant information.
- Offers a **visually appealing and user-friendly interface**.
- Helps users **learn and identify plants** effectively.
- Promotes **sustainable gardening practices** among users.
- **Saves time** by collecting all **plant-related data** in one platform.
- Can be **easily updated and expanded** with new plant categories.

DISADVANTAGES

- **Requires an active internet connection to access the web app.**
- **Does not currently include real-time plant identification features.**
- **Limited database —** only predefined plant categories are available.

HARDWARE REQUIREMENTS

- **Processor:** Intel Core i3 or higher
- **RAM:** Minimum 4 GB (8 GB recommended)
- **Storage:** At least 500 MB free space for project files and database
- **Display:** 1366 × 768 resolution or higher
- **Operating System:** Windows 10 / 11, macOS, or Linux
- **Internet:** Stable connection for frontend-backend communication and database access

SOFTWARE REQUIREMENTS

- **Frontend:** ReactJS with HTML, CSS, and JavaScript for interactive user interfaces.
- **Backend:** Required in the further development (static frontend project).
- **Browser:** Google Chrome, Safari, or any modern web browser.
- **Tools:** Visual Studio Code and npm for development and package management.
- **Operating System:** Compatible with Windows, macOS, and Linux.

MODULES

1. Home Module
2. Plant Category Module
3. Description Module
4. Navigation Module
5. Learn More Module

MODULE DESCRIPTION

Home Module

This is the landing page of the app where users first interact. It provides an overview of the app's features, highlights popular plants, and may include quick access buttons to other modules. Its goal is to engage users immediately and guide them to explore the app further.

It also showcases seasonal highlights, featured plants, or latest updates to keep the content fresh and engaging.

MODULE DESCRIPTION

Plant Category Module

This module organizes plants into different categories such as fruits, vegetables, medicinal, ornamental, etc. It allows users to browse plants based on their type or use, making navigation easier and more intuitive.

Users can quickly filter or search within categories to find the exact plant they are interested in.

MODULE DESCRIPTION

Description Module

The description module provides detailed information about each plant. This can include its scientific name, uses, benefits, growth requirements, and care instructions. It serves as the educational core of the app.

It may include images, growth stages, and practical tips to help users successfully grow and care for each plant.

MODULE DESCRIPTION

Navigation Module

This module ensures smooth movement across different sections of the app. It includes menus, buttons, or tabs to help users access the Home, Plant Categories, Descriptions, and Learn More modules seamlessly.

It enhances user experience by providing clear pathways and reducing the effort needed to find information.

MODULE DESCRIPTION

Learn More Module

This module offers additional resources for users who want to deepen their knowledge about gardening, plant care, or specific plant uses. It can include tips, tutorials, videos, or links to external resources.

This module encourages continuous learning by offering expert advice, DIY guides, and fun facts about plants.

SAMPLE OUTPUT

 GROW YOUR OWN GARDEN

Welcome to **Green India**
Discover, Grow, and Care for Your Plants & Trees



Explore & Grow Your Plants 

Food Plants Oil-yielding Plants Fiber Plants Medicinal Plants Ornamental Plants Timber (Wood-yielding) Plants Beverage Plants Spice and Condiment Plants Fodder Plants Industrial Plants



SAMPLE OUTPUT

GROW YOUR OWN GARDEN

Food Plants <p>Provide food for humans and animals.</p> <p>Food plants are the most important source of nutrition for humans and animals. They provide essential nutrients such as carbohydrates, proteins, fats, vitamins, and minerals. These include cereals, pulses, fruits, and vegetables that form our daily diet.</p> <p>Learn More →</p>	Oil-yielding Plants <p>Produce oils used for cooking, cosmetics, and industrial</p> <p>Oil-yielding plants produce oils that are extracted from their seeds, fruits, or nuts. These oils are used for cooking, making soaps, cosmetics, and even in some medicines and industries.</p> <p>Learn More →</p>	Fiber Plants <p>Provide natural fibers used in making cloth, ropes, and sacks.</p> <p>Fiber plants provide natural fibers that are used to make clothing, ropes, sacks, and other materials. These fibers can be obtained from seeds, stems, or leaves of the plants.</p> <p>Learn More →</p>	Medicinal Plants <p>Used in traditional and modern medicines for curing diseases.</p> <p>Medicinal plants contain natural compounds that help in treating and preventing diseases. They are used in traditional medicine (like Ayurveda) and in the production of modern drugs.</p> <p>Learn More →</p>
Ornamental Plants <p>Grown for beauty and decoration in gardens and homes.</p> <p>Ornamental plants are grown mainly for decoration and aesthetic purposes. They enhance the beauty of homes, gardens, parks, and public places with their colorful flowers and attractive leaves.</p>	Timber (Wood-yielding) Plants <p>Provide wood for furniture, building materials, and paper.</p> <p>Timber plants provide strong, durable wood used for making furniture, doors, buildings, and paper. These trees are valuable resources for construction and manufacturing.</p>	Beverage Plants <p>Used to prepare drinks and beverages.</p> <p>Beverage plants produce leaves, seeds, or fruits that are used to prepare drinks consumed worldwide. These drinks often have stimulating or refreshing effects.</p> <p>Learn More →</p>	Spice and Condiment Plants <p>Used to flavor and preserve food.</p> <p>Spice and condiment plants are used to flavor, season, and preserve food. They are rich in aroma and taste, and many also have medicinal properties.</p> <p>Learn More →</p>



17

SAMPLE OUTPUT

GROW YOUR OWN GARDEN



gardens and homes.

Ornamental plants are grown mainly for decoration and aesthetic purposes. They enhance the beauty of homes, gardens, parks, and public places with their colorful flowers and attractive leaves.

[Learn More →](#)

materials, and paper.

Timber plants provide strong, durable wood used for making furniture, doors, buildings, and paper. These trees are valuable resources for construction and manufacturing.

[Learn More →](#)

Beverage plants produce leaves, seeds, or fruits that are used to prepare drinks consumed worldwide. These drinks often have stimulating or refreshing effects.

[Learn More →](#)

Spice and condiment plants are used to flavor, season, and preserve food. They are rich in aroma and taste, and many also have medicinal properties.

[Learn More →](#)



Fodder Plants

Provide food for domestic animals.

Fodder plants provide food for livestock such as cows, goats, and horses. They supply the necessary nutrients for animal growth and milk production.

[Learn More →](#)



Industrial Plants

Used in manufacturing goods and industrial products.

Industrial plants are grown to obtain raw materials used in various industries. They are processed to produce goods such as rubber, sugar, dyes, paper, and tobacco

[Learn More →](#)

OUTPUT

GROW GARDEN : <https://github.com/Varshasenguttuvan-cloud/grow-garden>

CONCLUSION

- **Simplifies Gardening Management** – Provides organized information on plants, their uses, and care methods.
- **Seamless Technology Integration** – Uses ReactJS, Spring Boot, and MongoDB for a secure and interactive user experience.
- **Informative & Educational** – Offers detailed plant descriptions, categories, and resources for better gardening decisions.
- **User-Friendly Insights** – Helps users plan and maintain their garden efficiently.
- **Reliable & Scalable** – Serves as a long-term solution for individuals aiming to cultivate a greener lifestyle and enhance gardening knowledge.