

# PRE-SYNOPSIS

## Project Title:

### Virtual Herbal Garden: An Interactive Platform Showcasing Medicinal Plants Used in AYUSH Systems

#### 1. Introduction:

AYUSH systems—Ayurveda, Yoga & Naturopathy, Unani, Siddha, and Homeopathy—highlight India’s rich heritage of traditional healthcare. Medicinal plants are central to these systems, but their knowledge is often scattered or undocumented in modern formats. This project aims to create a **Virtual Herbal Garden**—a 3D interactive educational platform to showcase, preserve, and share information on medicinal plants in a modern, immersive, and engaging way.

#### 2. Objectives:

- Build a user-friendly 3D virtual garden of medicinal plants.
- Provide authentic information on uses, preparation methods, and relevance in AYUSH.
- Support students, researchers, and the general public with digital learning tools.
- Promote the global reach and digital documentation of India’s traditional healthcare systems.

#### 3. Key Features:

- **3D Interactive Garden:** View plants in a spatial layout with rotate, zoom, and inspect features.
- **Detailed Plant Profiles:** Scientific & local names, uses, preparation, and health benefits.
- **Search & Filter Options:** Based on disease, plant part, AYUSH category, or ecological relevance.
- **Multilingual & Audio Support:** For inclusivity and better learning.
- **Gamified Learning:** Interactive quizzes, badges, and virtual gardening.
- **AR/VR Support (Optional):** Explore in real-life settings using AR or with VR headsets.

#### 4. Tools & Technologies:

| Component | Tools/Technologies Used |
|-----------|-------------------------|
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| Frontend | React.js / Unity / Babylon.js |
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|         |                             |
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| Backend | Node.js, Firebase / MongoDB |
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| 3D/AR/VR | WebXR, Unity, ARCore, ARKit |
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| AI Integration | Voice Search, Chatbot Recommendations |
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#### 5. Scope & Future Expansion:

- Integration with AYUSH universities and health institution
- Extension into mobile apps and e-commerce for herbal product tie-ups.

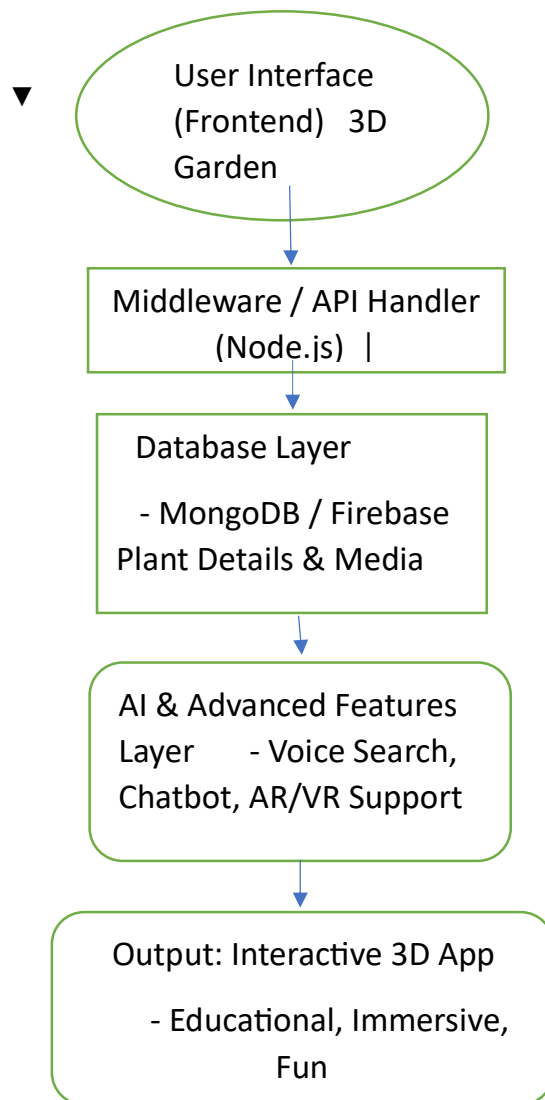
- Government and NGO collaboration for public awareness campaigns.
- Community uploads and feedback to enhance plant knowledge database.

## 6. Expected Outcome:

- A visually rich and accessible platform for AYUSH-based herbal education.
- Encourages the younger generation to explore India's traditional systems using modern tech.
- Contributes to the digital preservation and propagation of Indian medicinal heritage.

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## WORKFLOW DIAGRAM (Flow of Work)



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