PlantPal
Smart Plant Care Companion

Project Idea

A web application that gamifies plant care management by allowing users to create digital profiles for their indoor and outdoor plants, receive intelligent and personalized care suggestions based on real-time weather data, and even diagnose plant health issues using AI image analysis. Instead of generic reminders, PlantPal gives plant-specific care schedules and actionable insights in a fun, engaging way—making plant care beginner-friendly and interactive.

Project Description

PlantPal is a full-stack plant care assistant designed to help users manage and keep their plants healthy effortlessly. Users can register/login and build their "digital plant collection" by adding plant profiles with details like plant type, watering needs, and ideal sunlight conditions.

The system integrates weather API data to dynamically adjust care suggestions and notify users about actions like watering, misting, fertilizing, or shifting sunlight exposure. For example, instead of showing plain weather data like "Humidity: 30%", the app interprets it as "Low humidity today — your fern might need misting."

A highlight feature is the **AI Plant Doctor**, where users can upload a plant photo if it appears unhealthy. The system will analyze common issues like fungal spots, yellowing leaves, or pest damage and return a possible diagnosis with treatment steps.

The platform focuses on smooth user experience with a React-based frontend, visually engaging plant dashboards, alerts, and progress tracking. The backend (Node.js + Express + MongoDB) will handle user authentication, plant data storage, scheduling logic, and care history tracking.

Wireframe Flow