



CULTIMATE – Crop Recommendation System

Acropolis Institute of Technology and Research

INTRODUCTION

The framework essentially analyzes the soil pictures . These soil pictures are then used to predict the crops supported by the soil types. In India there are multiple ways to rise the crop learn profit and improve the quality of the crops thus to carry on the economic growth inside the sector of agriculture. Now-a-day's climatic conditions aren't predictable like decades ago. It is changing day by day due to globalization So, the implementation of one of the recent advancement in technology such as, Machine learning is one of the solutions for predicting the crop . The proposed system analyzes the application of supervised machine learning approaches. Thereby this proposed work will suggest the farmers with effective solutions for more profitable cultivation.

OBJECTIVES

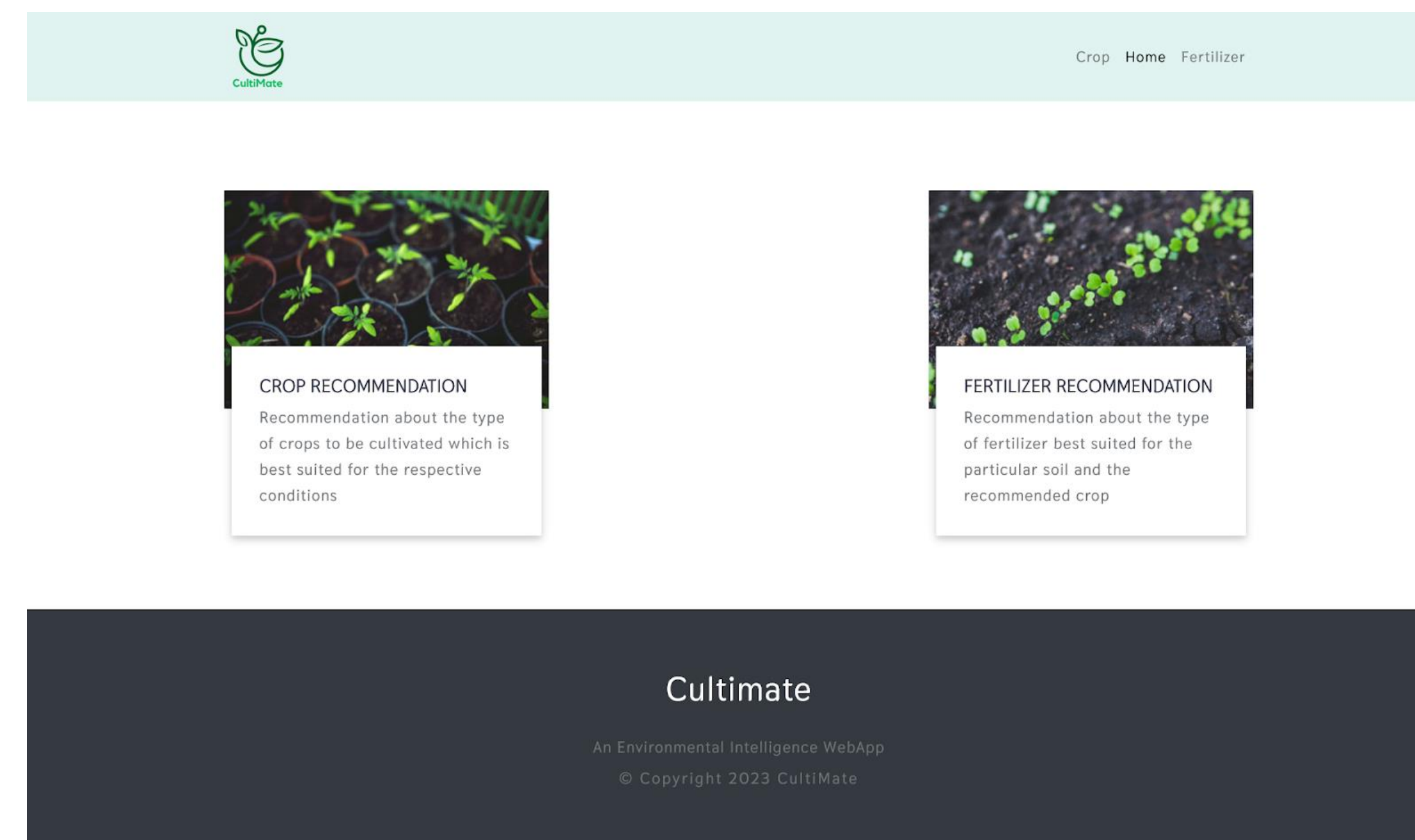
Selecting the right crop to grow involves considering factors such as climate, soil type, water availability, and market demand. Optimal crop growth, development, and yield can be achieved through proper nutrient, water, and sunlight management, as well as monitoring and managing pests and diseases. Identifying plant diseases involves examining symptoms and environmental conditions, and accurate diagnosis is crucial for effective treatment.

PREDICT CROP AND FERTILIZER AT
ONE PLACE

CULTIMATE

FEATURES

❖ User friendly environment :



❖ Enter value of NPK and RainFall

Find out the most suitable crop to grow in your farm

Nitrogen

Phosphorous

Potassium

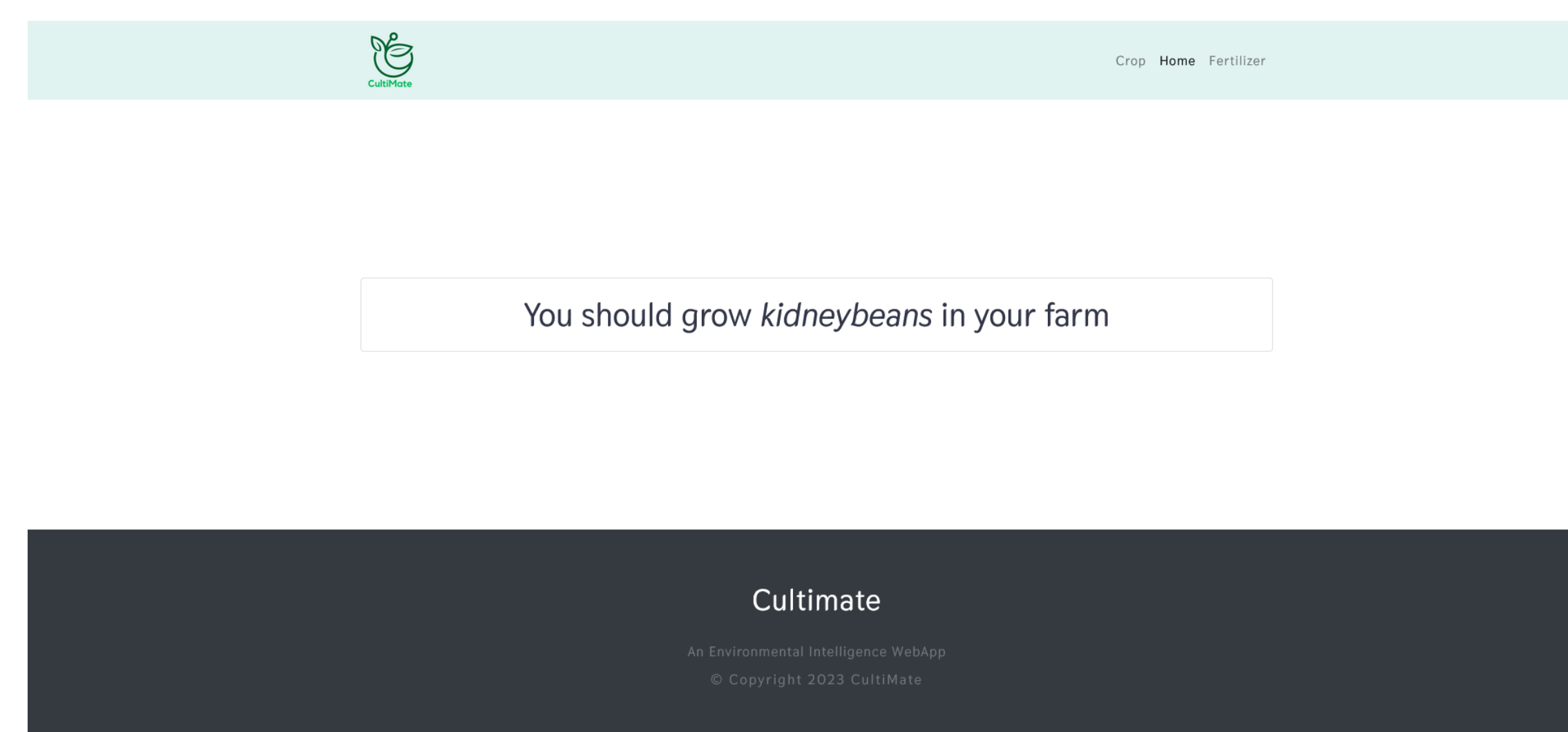
pH level

Rainfall (in mm)

State

City

❖ Get Instant Results



TECHNOLOGY USED

❖ **FLASK** : Flask is a micro web framework written in Python. It is classified as a microframework because it does not require particular tools or libraries. It has no database abstraction layer, form validation, or any other components.

❖ **Flask SQLAlchemy** : Flask-SQLAlchemy is an extension for Flask that adds support for SQLAlchemy to your application. It simplifies using SQLAlchemy with Flask by setting up common objects and patterns for using those objects.

❖ **PYTHON** : Python is a high-level, general-purpose programming language.

❖ **HTML5** :HTML5 is a markup language used for structuring and presenting content on the World Wide Web

❖ **CSS 3** : CSS describes how elements should be rendered on screen, on paper, in speech, or on other media.

❖ **Bootstrap** : Bootstrap is a free and open-source CSS framework directed at responsive, mobile-first front-end web development.

CONCLUSION

Agriculture can benefit from new technologies like machine learning and deep learning to improve crop yield and address farming problems. Different approaches can be used to determine the accuracy of crop yield and improve performance. In the future, IoT can be used to gather real-time data from detectors installed on the farm to monitor soil conditions.

FUTURE SCOPE

The future scope of this project includes incorporating advanced machine learning algorithms, expanding to more soil types and crops, implementing IoT for real-time data, and creating a knowledge base for farmers to make informed decisions. The ultimate goal is to aid the economic growth of agriculture by providing effective solutions for profitable cultivation.

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