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AGRO-HELP A DYNAMIC WEB APPLICATION

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Abstract: Agro-Help a Dynamic Web Application help farmers by providing various information related to farming like updated market price of crops, modern equipment and Government schemes. The proposed system helps any individual new to the field of agriculture by helping them in selecting right crop as according to their region.

Keywords: Web development, Machine Learning, Agriculture, Crop Disease and prevention, Crop price, Modern Equipment, Government Schemes.

I. INTRODUCTION

Agriculture being a main occupation of India, about 70% of population directly rely on agriculture for livelihood. Agricultural exports constitute more than 10% of country's exports and come under fourth largest exported principal commodity category in our country. It deserves good technical support which can be rendered through web development and machine learning.

Agriculture is the main source of Indian economy as well as it is considered to be the backbone of economic system for developing countries and also contributes a significant figure to the Gross Domestic Product (GDP). It is necessary to embrace new technologies to overcome the problems in the field of agriculture. There are many benefits associated with the advancement of new technologies in farming which includes: increased productivity, crop pattern suggestions, proper utilization of modern machineries and technologies.

II. LITERATURE SURVEY

H Manoj T Gadiyar, Dr. Thyagaraju G S, Vandana M G, Soubhagya K, Sinchana N, Swarna S," Online based Agriculture Monitoring System using AI"[1]. Agriculture monitoring system using Artificial Intelligence focus on helping farmers for cultivating for better yield crops. This paper raises concern towards farmer, helping them to select suitable crop based on market demand, weather status and soil health. This paper emphasize on identifying more systematic ways to protect crops from plagues, weeds and also contribute in showing better ways to produce, harvest,

sell essential crops, forecast weather data, monitor crop and soil health, and decrease pesticide usage considerably.

Hetal Patel and Dr. Dharmendra Patel "Survey of android apps for Agriculture sector" [2]. This mainly focuses on the importance of developing an application that provides many information and features related to agriculture in one place. This paper does a literature review on the statistical data of various applications that are already available to farmers and its features. The FarmManager app is developed for the Greek farmers for small farm only. The AgroMobile app is useful for only recognition of botanical species and disease detection. The Agriculture Supply Chain Management app is useful for those farmer who want to produce sugarcane. This paper raises concern towards helping farmers by developing a many in one website.

H Manoj T Gadiyar, Dr. Thyagaraju G S, Poornima, Rajashree Hebbar V, Sanjana K L, Sanjana S,"AI AND CLOUD BASED SMART FARM ASSIST IN KANNADA FOR COCONUT FARMERS"[3]. In this Farm Chat system it provides guidance to the farmers using dialog flow, natural language processing and cloud. It recommends suitable policies to the coconut cultivatorsto overcome their farming-related problems. The important features of this system are weather, marketing value, government schemes and type of soil and videos related to coconut. It also provides transportation facilities for transporting coconuts to the principal market and also responds to farmers queries via voice-based format in the Kannada Language.

Abhinav Sharma, Arpitha Jain, PrateekGupta and Vinay Chowdary,"Machine Learning Applications for Precision Agriculture: A Comprehensive Review"[4]. Precision agriculture also known as smart farming have emerged as an innovative tool to address current challenges in agricultural sustainability. In this article, authors present a systematic review of ML applications in the field of agriculture. The areas that are focused are prediction of soil parameters such as organic carbon and moisture content, crop yield prediction, disease and weed detection in crops.

Study carried out on Related Work

Sl.No	ProjectTitle	Techniques used	Application
1	Application of Machine Learning in Agriculture	Detect and determine the nature and quality of soil. Tools: Rasberry Pi ArduinoMega2560 pH sensors Apache Web Server FireBase	This system is provided to the farmers for digitalizing agriculture
2	Literature review on expert system in Agriculture	Different expert systems used are: UNU-AES CUPTEX CITEX NAPER-WHEAT TOMATEX	Expert systems that assist human to make environmentally strong decision related to crop management

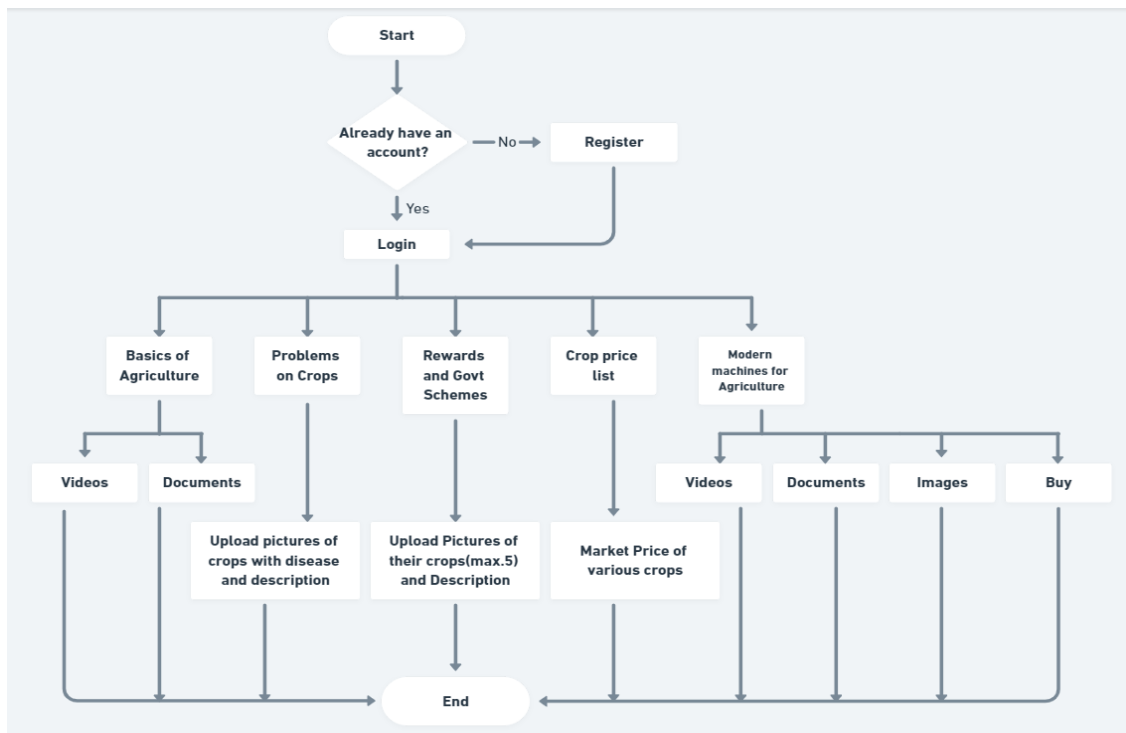
III. METHODOLOGY USED

- ❖ Django is a high-level Python web framework that enables rapid development of secure and maintainable websites.
- ❖ Manage intents with API.
- ❖ Building an web application from scratch
- ❖ User service:
 - Farmer provides the data to the system.
 - Expert gives the advice.

- ❖ Data will get stored in the database and can be retrieved whenever required.
- ❖ Content related to modern machineries used in agriculture are updated and stored.

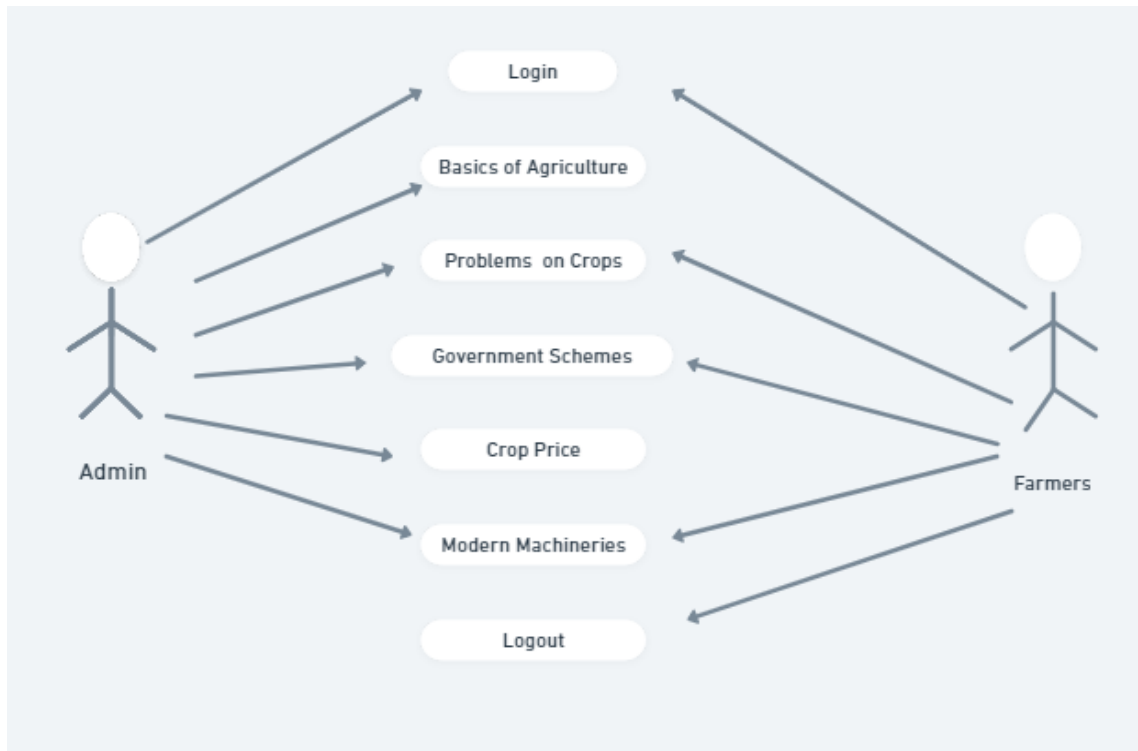
IV. PROPOSED SYSTEM

Here, the figure shows the flowchart of proposed AgroHelp Web design



V. USER INTERFACE DESIGN

The user interface design of the proposed system is depicted in figure,



VI. CONCLUSION

Agriculture is known to be one of the most significant economic activities in our country. Providing technical support to farmers will help to improve agricultural yield in many ways. Our farmers are facing several problems in agriculture due to the lack of knowledge of various diseases of crops and its solution and also unaware about various government schemes and funds. The proposed work aims at developing a website which will assist in agriculture, provide solutions for various plant diseases and also about various schemes provided by the government.

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