
PLANT PATHOLOGY

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ABSTRACT

Plant diseases and pests are important factors determining the yield and quality of plants. Plant diseases and pests identification can be carried out by means of digital image processing. In recent years, deep learning has made breakthroughs in the field of digital image processing, far superior to traditional methods. How to use deep learning technology to study plant diseases and pests identification has become a research issue of great concern to researchers.

I. INTRODUCTION

Leaf disease detection is important because profit and loss depend on production. So that here use deep learning techniques to detect apple, grape, corn potato, and tomato plant leaves diseases. That contains twenty-four types of leaf diseases and twenty-four thousand leaves images are used Apple, grape, corn, potato, and tomato plant leaves which are categorized total 24 types of labels apple label namely. Regular maintenance of plant leaves is the profit in agricultural products Farmers do not expertise in leaf disease so they producing lack of production.

The most important sector of our Economy is Agriculture. Various types of dis-ease damages the plant leaves and effects the production of crop there for Leaf disease detection is important. Regular maintenance of plant leaves is the profit in agricultural products Farmers do not expertise in leaf disease so they producing lack of production.

Apple scab, Black rot, apple rust, and healthy. Grape label namely: Black rot, Esca, healthy, and Leaf blight. Corn label namely: Corn Cercospora spot Gray spot, Corn rust, Corn healthy, Corn Northern Blight Potato label namely: Early blight, healthy, and Late blight. Tomato label namely: bacterial spot, early blight, healthy, late blight, leaf mold, septoria leaf spot, spider mite, target sport, mosaic virus The dataset consist of images of apple, grape, potato and tomato, all Images are resized.

II. PROPOSED APPROACH

There are total 5modules such as

- 1) Register
- 2) Admin
- 3) Diseases Detection
- 4) Chatbot
- 5) History

We are providing control to admins to keep watch over all user, Farmer to see if any unauthorized user/Framer has been logged in.

After adding all information, we are providing control to the users that they can sign up first then admin can verify that the person is disable or not and approve the user.

After Register farmer will able to upload diseased leaf image and get information about leaf.

In History all information about leaf disease.

Chatbot is used to chat with other farmers.

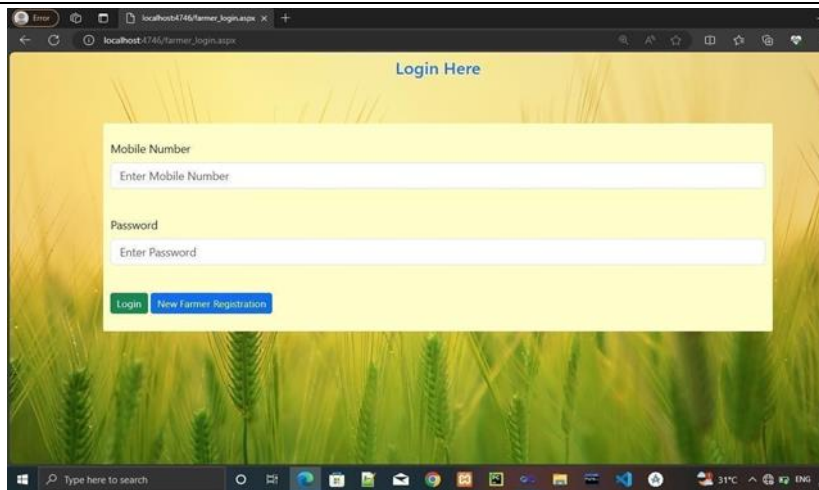


Figure 1: Login Page

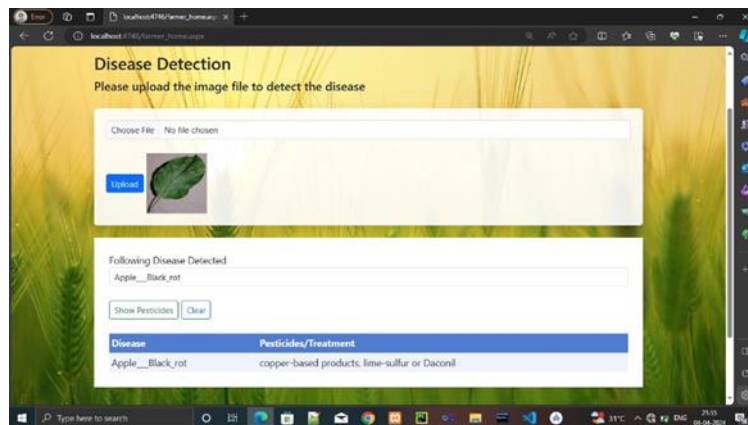


Figure 2: Disease Detection



Figure 3: History

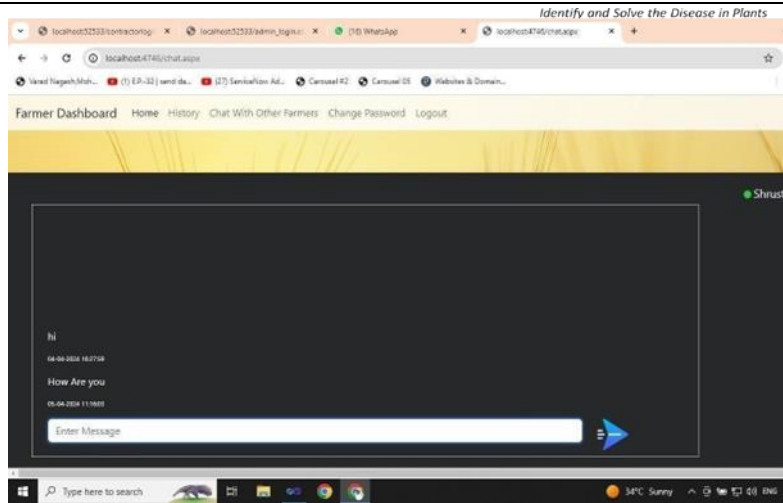


Figure 4: Chatbot



Figure 5: Change Password

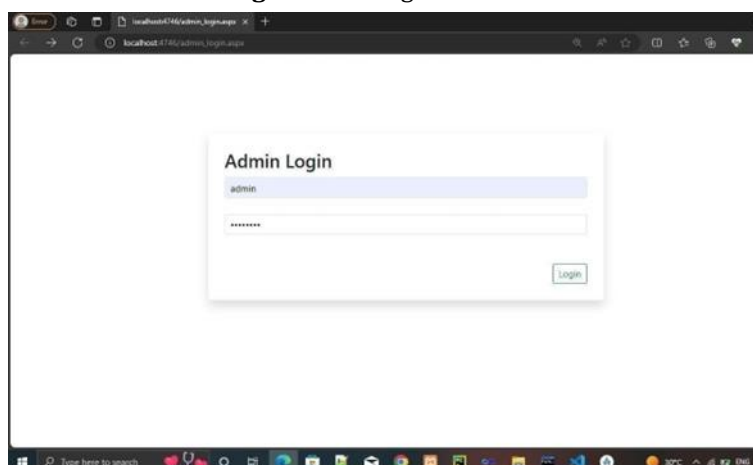
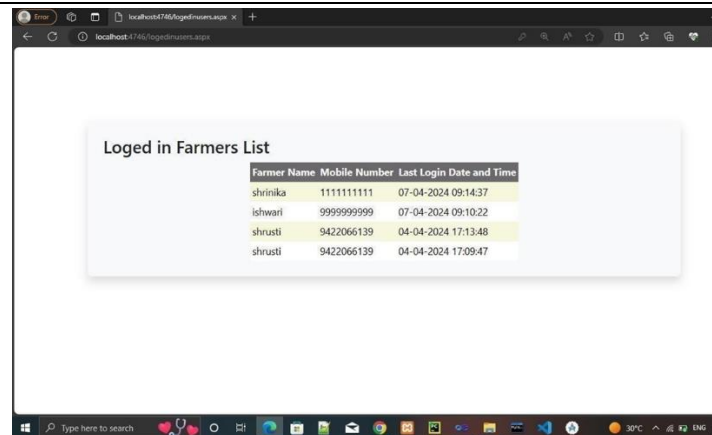


Figure 6: Admin Page

A screenshot of a web browser displaying a table titled "Logged in Farmers List". The table has three columns: "Farmer Name", "Mobile Number", and "Last Login Date and Time". It contains four rows of data. The browser's address bar shows "localhost:4140/login/admin.html".

Farmer Name	Mobile Number	Last Login Date and Time
shrinika	1111111111	07-04-2024 09:14:37
ishwari	9999999999	07-04-2024 09:10:22
shrusti	9422066139	04-04-2024 17:13:48
shrusti	9422066139	04-04-2024 17:09:47

Figure 7: Farmer admin

III. CONCLUSION

We have studied about existing system feature based approach. It's done by image processing technique in this we have studied steps like image Acquisition, image pre- processing, Image Segmentation, features extraction, classification.

IV. REFERENCES

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