Crop and Weed Recognition

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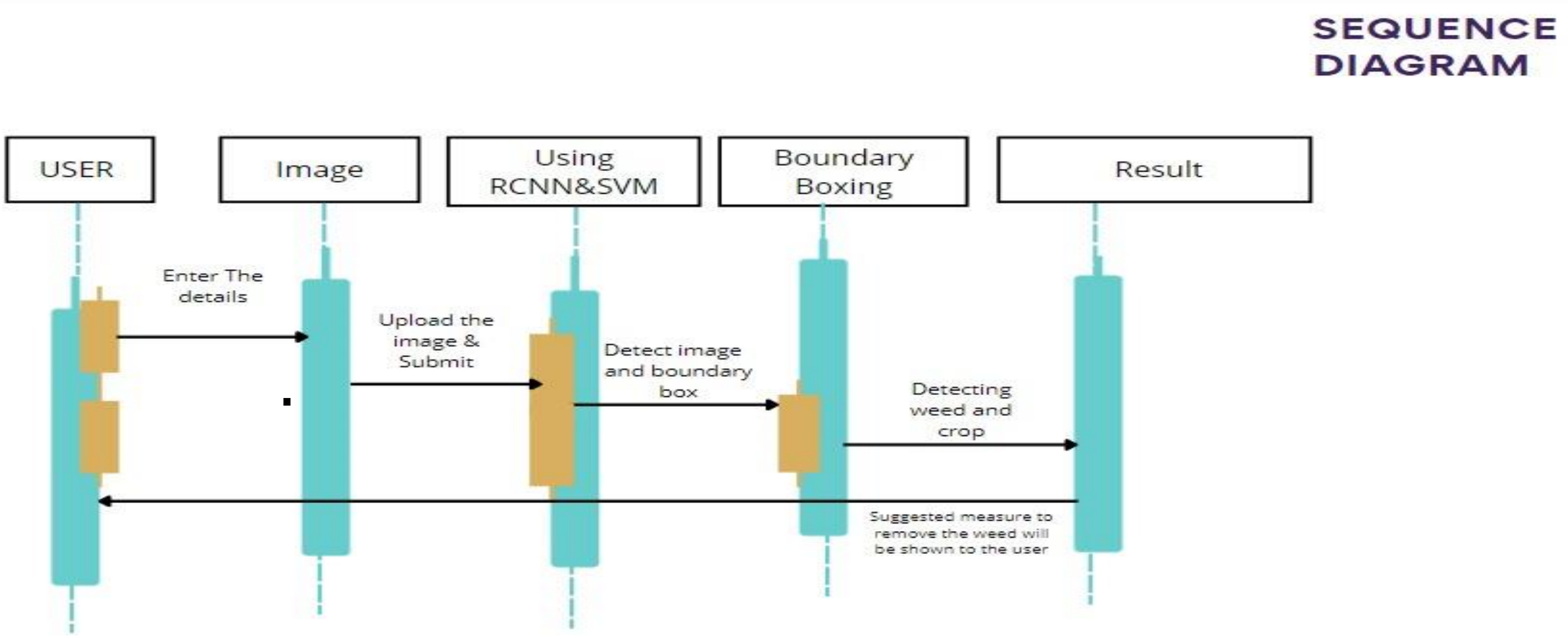
Abstract

As the increase in the world population the demand of the sesame crop also increases.Sesame is used as food and flavoring. Sesame is an oil-rich crop from which valuable oil is extracted.In order to increase the growth of sesame in the sesame crop it is necessary to detect the weed in the sesame crop and the barren land to minimize the growth of weed so that the growth of the sesame can be increased. We propose a Deep Learning technique to recognize and localize the crop,by training the datasets using RCNN&SVM. Using the Bounding box technique,the image is recognized. We developed an algorithm which is able to recognize the difference between crop and weed with the accuracy of approx90% and suggests some techniques or measures to remove the weed from the field.

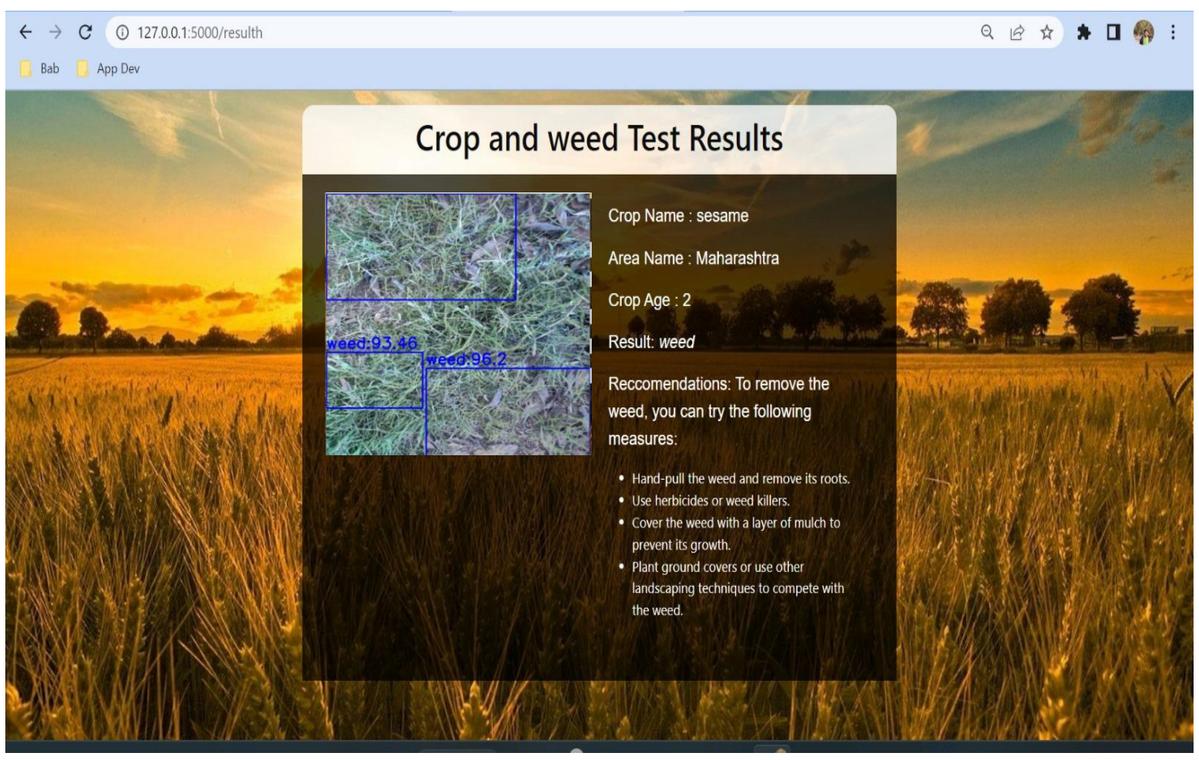
Objectives

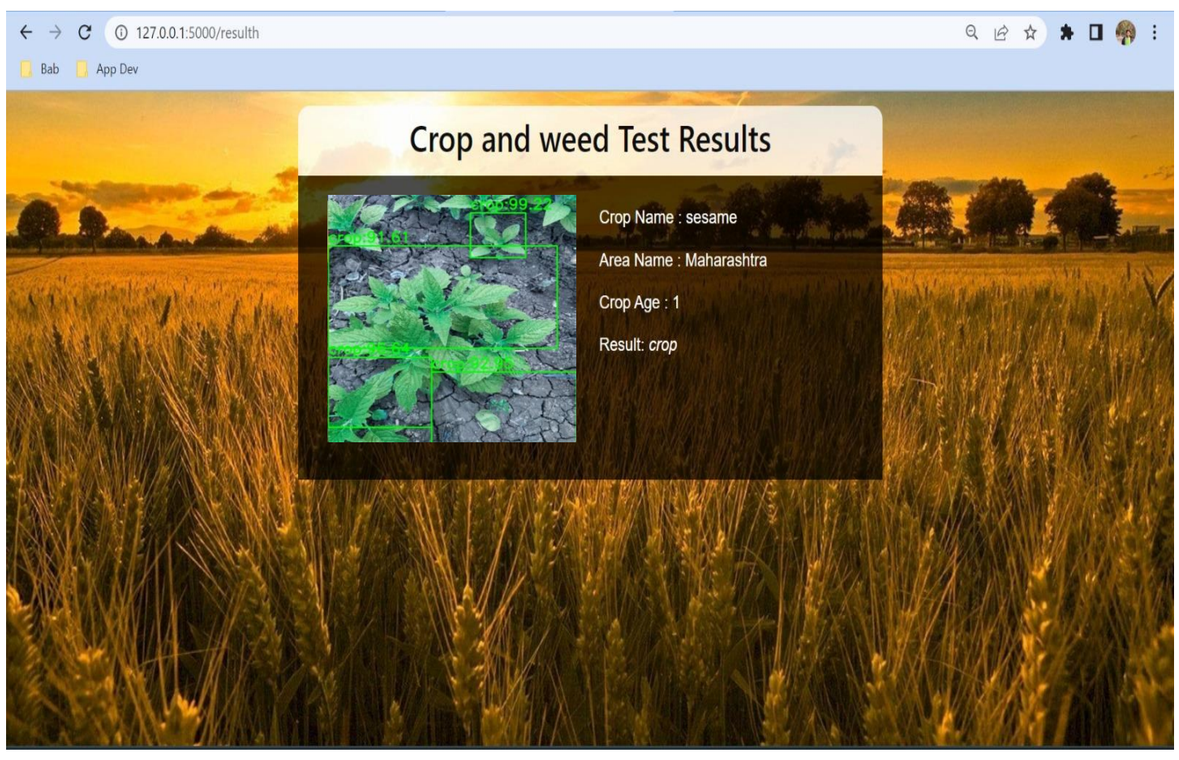
- The aim of this project is to implement a weed recognition system.
- The aim of this project is to implement a crop recognition system.
- To suggest measures to remove the weed identified by the system.

Project Scope



Results





Conclusion

In this system, we have developed a method by which we can recognize weed using Machine Learning.Due to the use of our system, we can recognize and separate out weed affected area from the crop plants.The reason for developing such system is to identify and reuse weed affected area for more seeding.This specific area can be considered for further weed control operations,resulting in more production and suggesting the measures to remove the weed.

Future Scope

- Multiple crop datasets can be added in-future and can be worked similar to this.
- We can provide the details on the best agricultural practices to do on the crop in order to improve crop quality.