

# PLANT HARVEST SYSTEM

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# AGENDA

1. Problem Statement
2. System Requirements
3. System Architecture
4. Algorithm Used
5. Model Integration
6. Output
7. Conclusion



# PROBLEM STATEMENT

Our System is an innovative agricultural assistance system which focuses on providing support for farmers to achieve cost efficiency and productivity. The system aids farmers in three critical areas: Geneticist—selection of crops and their disease identification and fertilization

# **SYSTEM REQUIREMENTS**

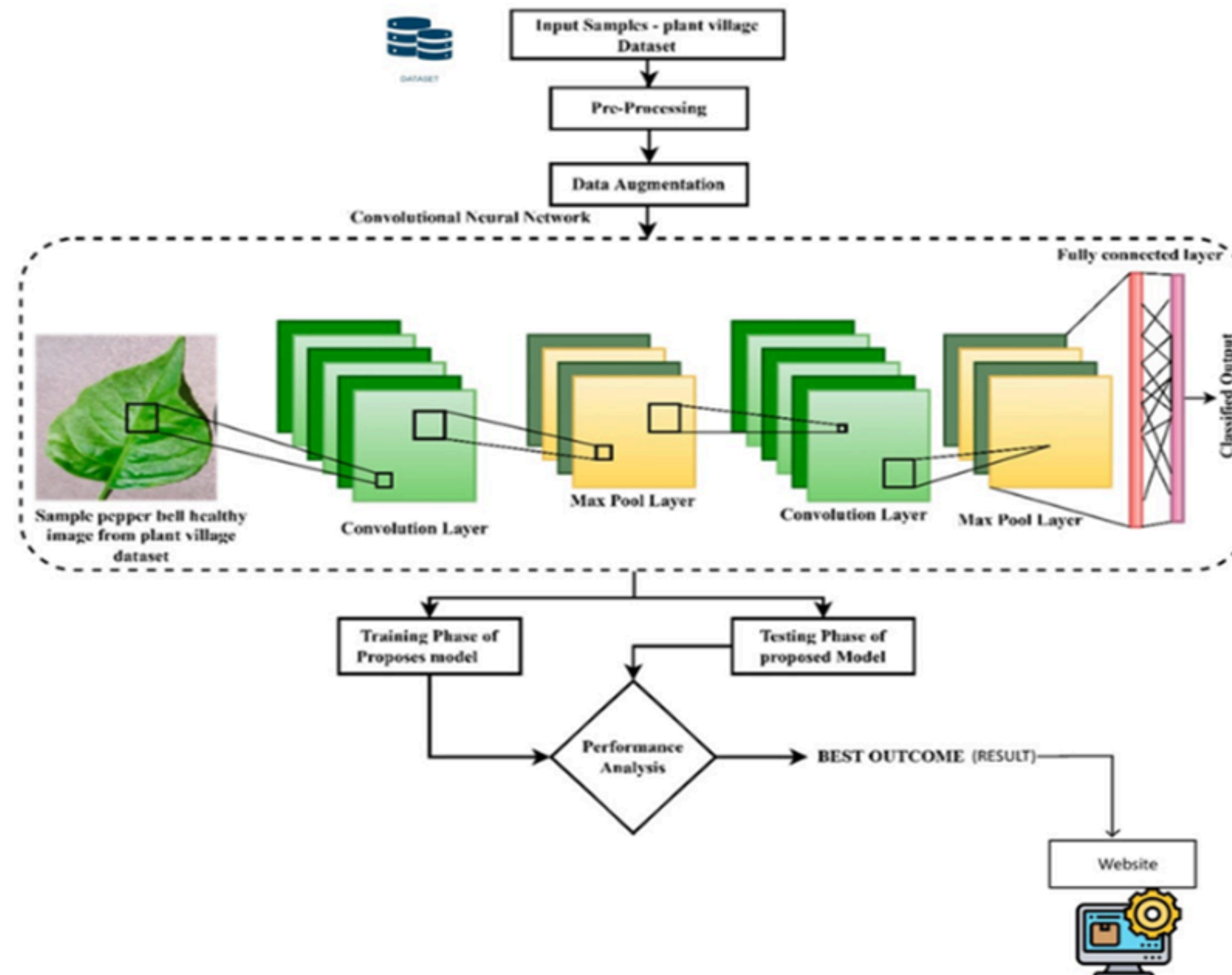
**Processor: Intel i3 and above**

**Operating System: Windows 8 and above**

**FrontEnd:Flask**

**BackEnd:Python**

# SYSTEM ARCHITECTURE

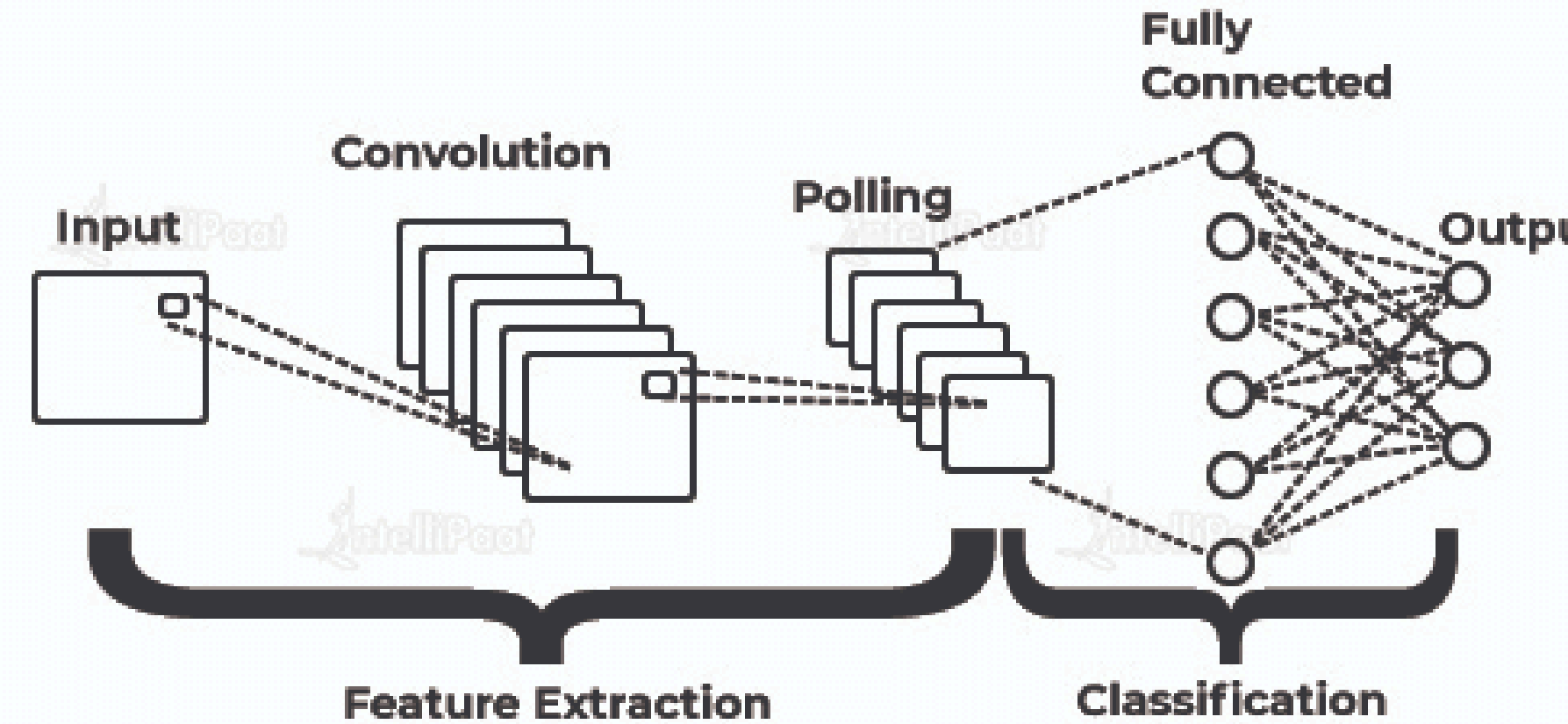


# WHAT IS CNN

A Convolutional Neural Network (CNN) is a type of deep learning algorithm that is particularly well-suited for image recognition and processing tasks. It is made up of multiple layers, including convolutional layers, pooling layers, and fully connected layers. The architecture of CNNs is inspired by the visual processing in the human brain, and they are well-suited for capturing hierarchical patterns and spatial dependencies within images.

# KEY COMPONENTS

1. Convolutional Layers
2. Pooling Layers
3. Activation Function
4. Fully Connected







# CNN MODEL USED

## RESNET

- ResNets (Residual Networks) are a type of deep learning algorithm that are particularly well-suited for image recognition and processing tasks. ResNets are known for their ability to train very deep networks without overfitting
- ResNets are often used for keypoint detection tasks. Keypoint detection is the task of locating specific points on an object in an image. For example, keypoint detection can be used to locate the eyes, nose, and mouth on a human face.



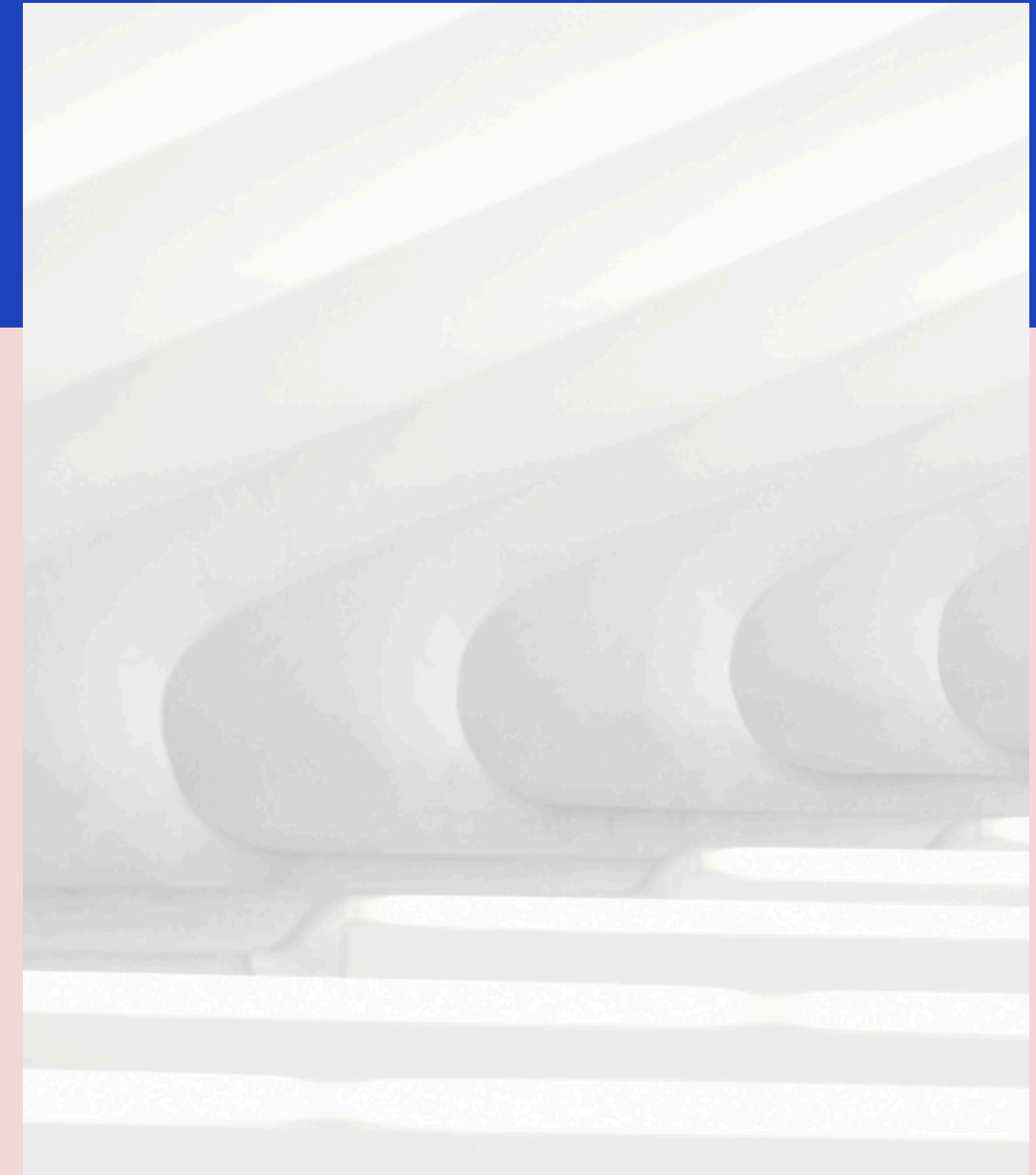
# **MODEL USED FOR TRAINING**

**SVM**

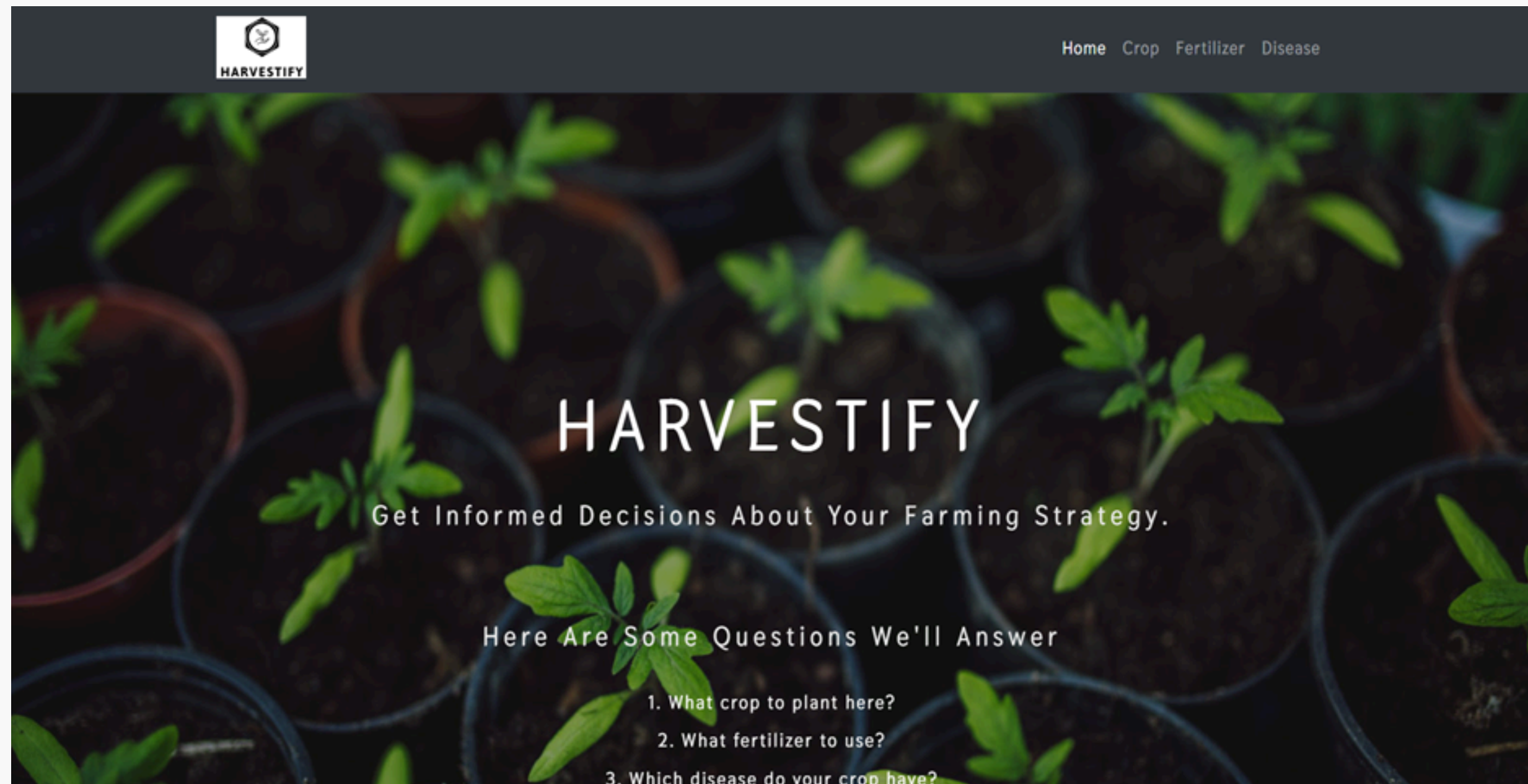
**DECISION TREE**

**NAIVE BAIAS CLASSIFIER**

**RANDOM FOREST**



# OUTPUT





Find out which disease has been caught by your plant

Please Upload The Image

No file chosen

### Cause of disease:

Gray leaf spot lesions on corn leaves hinder photosynthetic activity, reducing carbohydrates allocated towards grain fill. The extent to which gray leaf spot damages crop yields can be estimated based on the extent to which leaves are infected relative to grainfill. Damage can be more severe when developing lesions progress past the ear leaf around pollination time. Because a decrease in functioning leaf area limits photosynthates dedicated towards grainfill the plant might mobilize more carbohydrates from the stalk to fill kernels.

### How to prevent/cure the disease

1. In order to best prevent and manage corn grey leaf spot, the overall approach is to reduce the rate of disease growth and expansion.
2. This is done by limiting the amount of secondary disease cycles and protecting leaf area

