USER GUIDE

Grow better plants today

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Create An Account
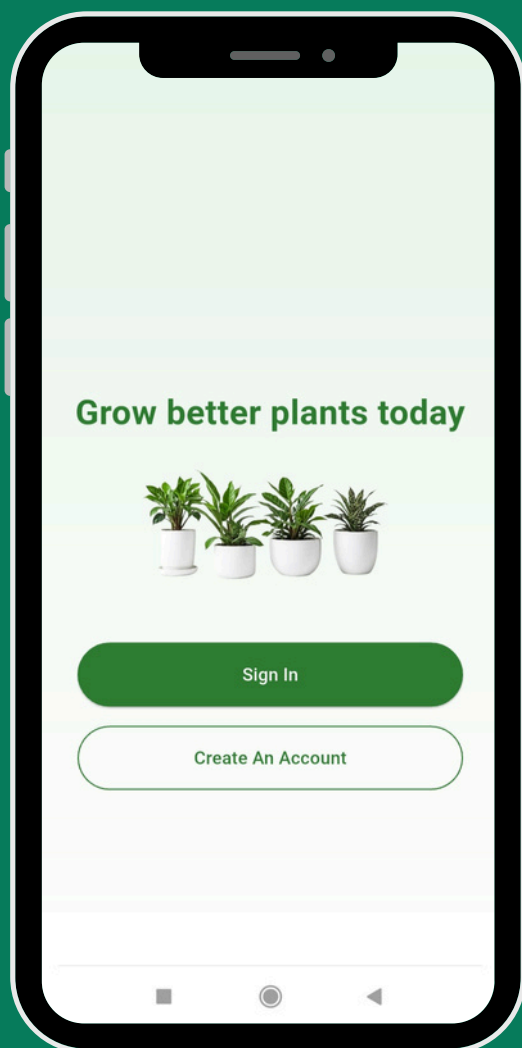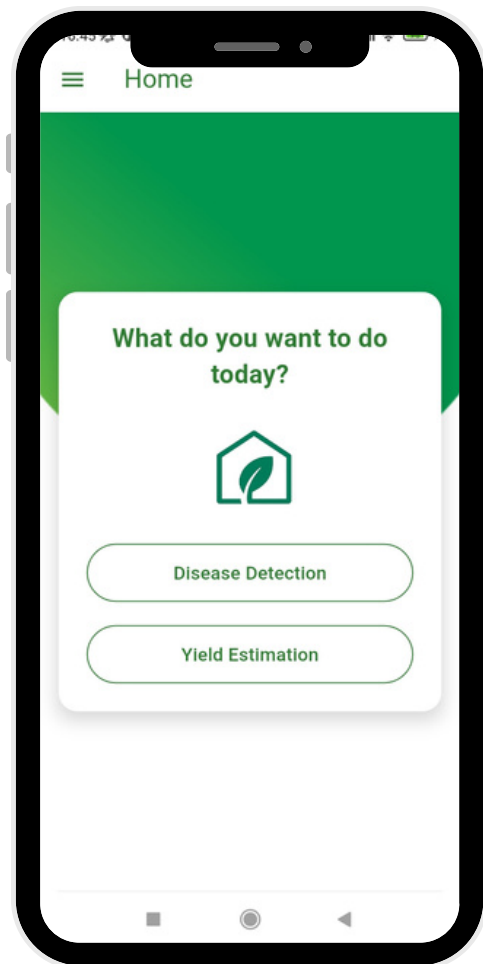
SMART GREENHOUSE
PLANT HEALTH APP

Helping you grow better plants.

Welcome to our App!

Thanks for choosing us! Our software is tailored to help you monitor your plants health efficiently and grow better yield.
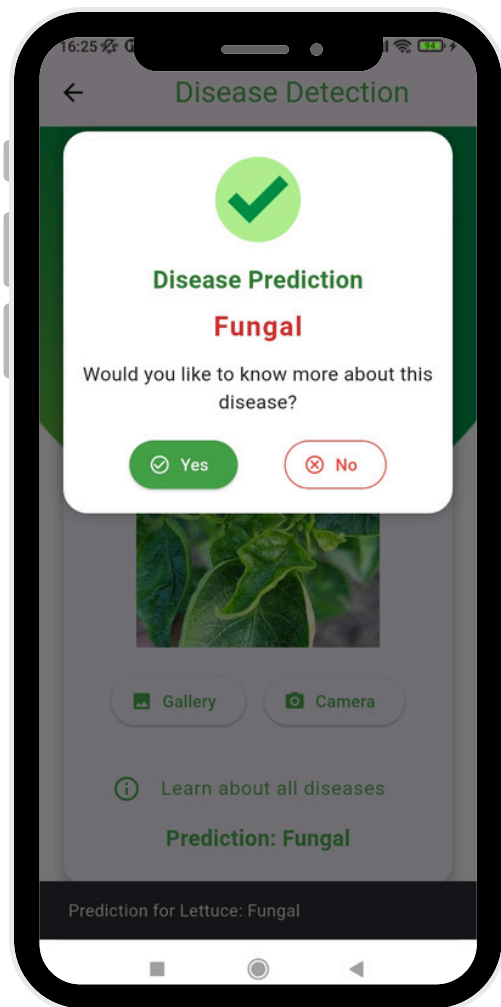
What will you find in this Guide

This guide provides an overview of the key features and basic operations related to our application.

Features

Our solution offers the features mentioned below:

1   Disease Detection

2   Yield Prediction

3   Disease Information with prediction for convenience.

4   View previous predictions according to date and time.

Our Goal

Maximize crop production by detecting diseases and predicting yield based on environmental factors.
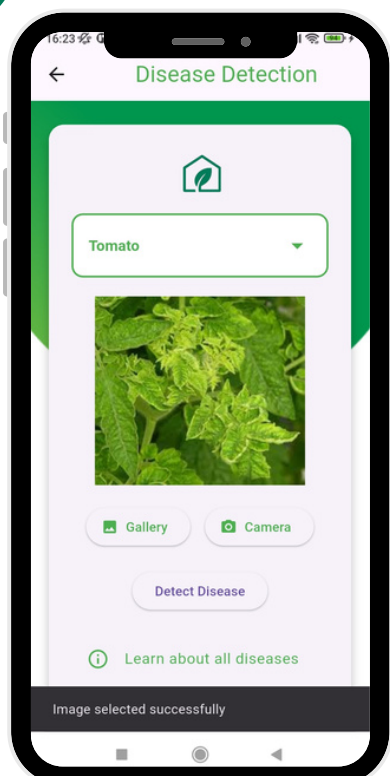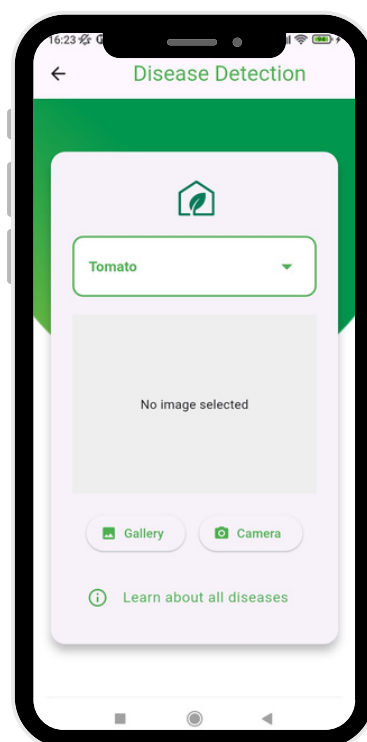
Disease Detection

To perform disease detection using our application you need to follow the steps as mentioned below:

1 **Select the Disease Detection option from home page.**

You can see a drop-down menu which will suggest three crops:

- Tomato
- Chilli
- Lettuce

Upload the image of the plant and press the detect button. **2**

You can either select an image from gallery or directly take a photo using camera feature. Once the image is successfully loaded you will be notified and a Detect Disease button will appear.
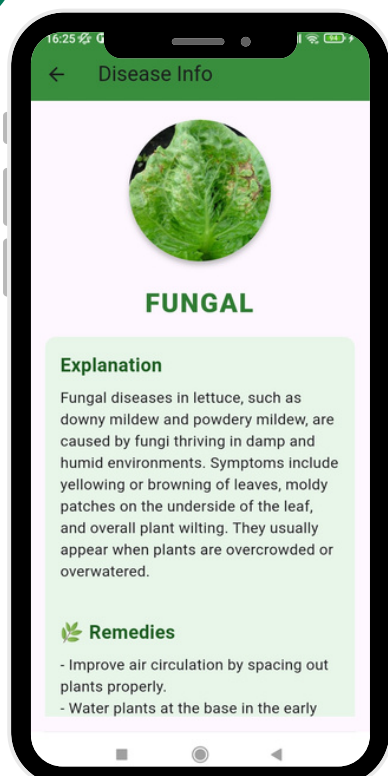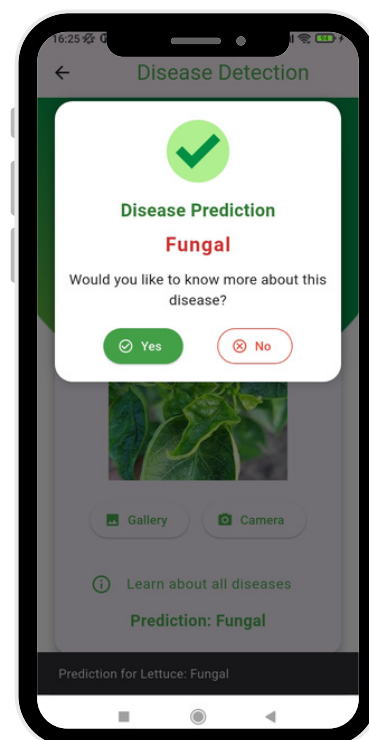
Disease Detection

3 **Select Yes on pop-up notification for disease information.**

The notification will prompt you to either agree to disease information or not. Selecting Yes will redirect you to the information page.

Note: *The previous predictions might take a while to display in the drawer on home page. You might want to logout and re-login.*

← Disease Detection

✓

Disease Prediction

Fungal

Would you like to know more about this disease?

⊘ Yes   ⊗ No

🖼 Gallery   📷 Camera

ⓘ Learn about all diseases

Prediction: Fungal

Prediction for Lettuce: Fungal

← Disease Info

FUNGAL

Explanation

Fungal diseases in lettuce, such as downy mildew and powdery mildew, are caused by fungi thriving in damp and humid environments. Symptoms include yellowing or browning of leaves, moldy patches on the underside of the leaf, and overall plant wilting. They usually appear when plants are overcrowded or overwatered.

🌿 **Remedies**

- Improve air circulation by spacing out plants properly.
- Water plants at the base in the early

Disease Information page display. **4**

The top of the page shows a picture of a leaf affected by the predicted disease followed by basic introduction to the disease, causes and remedies.
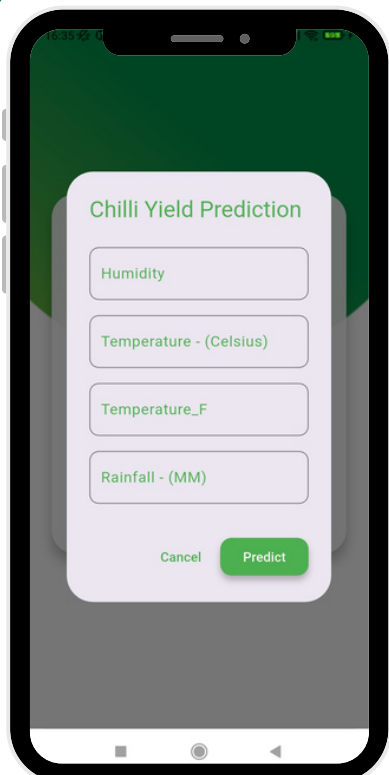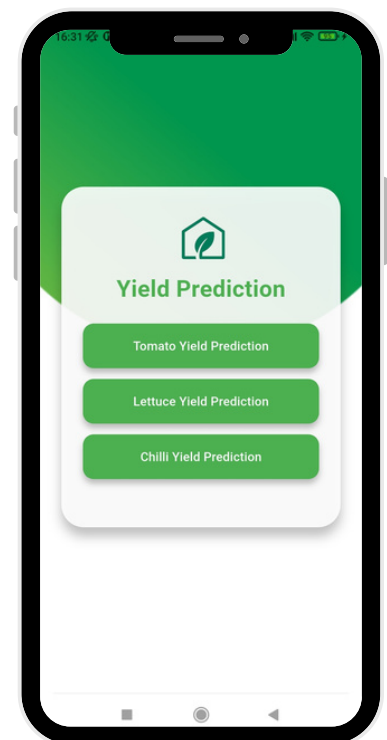
Yield Prediction

To perform yield prediction follow the steps mentioned below:

1 **Select the desired crop for while yield is to be detected.**

You may choose from any of the three buttons shown. Each button links to a form. You are required to fill the form using data from your sensor values.

Note: *Yield for tomato is in Kg, for lettuce is in number of growth days and for chilli is in Kg.*

Yield Prediction

Tomato Yield Prediction

Lettuce Yield Prediction

Chilli Yield Prediction

Chilli Yield Prediction

Humidity

Temperature - (Celsius)

Temperature_F

Rainfall - (MM)

Cancel   Predict

Fill out the form for prediction **2**

Fill out the form for prediction using data from your sensor values. You may view next page to understand each parameter asked.
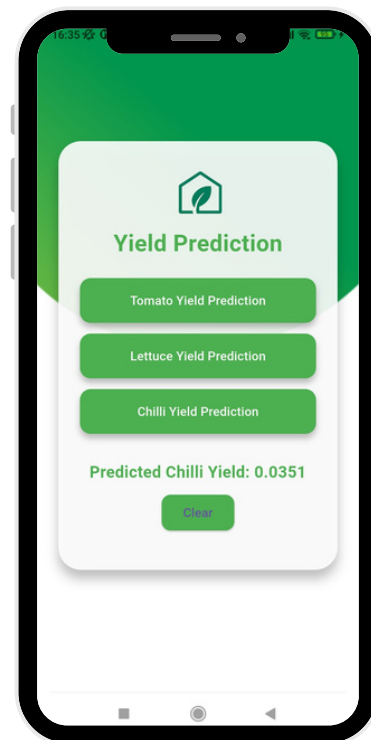
Yield Prediction

(3) **Prediction Results**

The results of the prediction are shown on the page as shown in the figure. You also have the option to clear the screen for convenience.

Parameters

Tomato

Tair: Greenhouse air temperature (°C)

Rhair: Greenhouse relative humidity (%)

CO2air: CO2 in greenhouse (ppm)

co2_dos: CO2 dosing (kg/ha hour)

Tot_PAR: Total inside PAR (μmol/m² s)

EC_drain: Drain EC (dS/m)

pH_drain: Drain pH (-)

Cum_irr: Cumulative irrigation (L/m² day)

Stem_thick: Stem thickness (mm)

Stem_elong: Stem growth per week (cm/week)
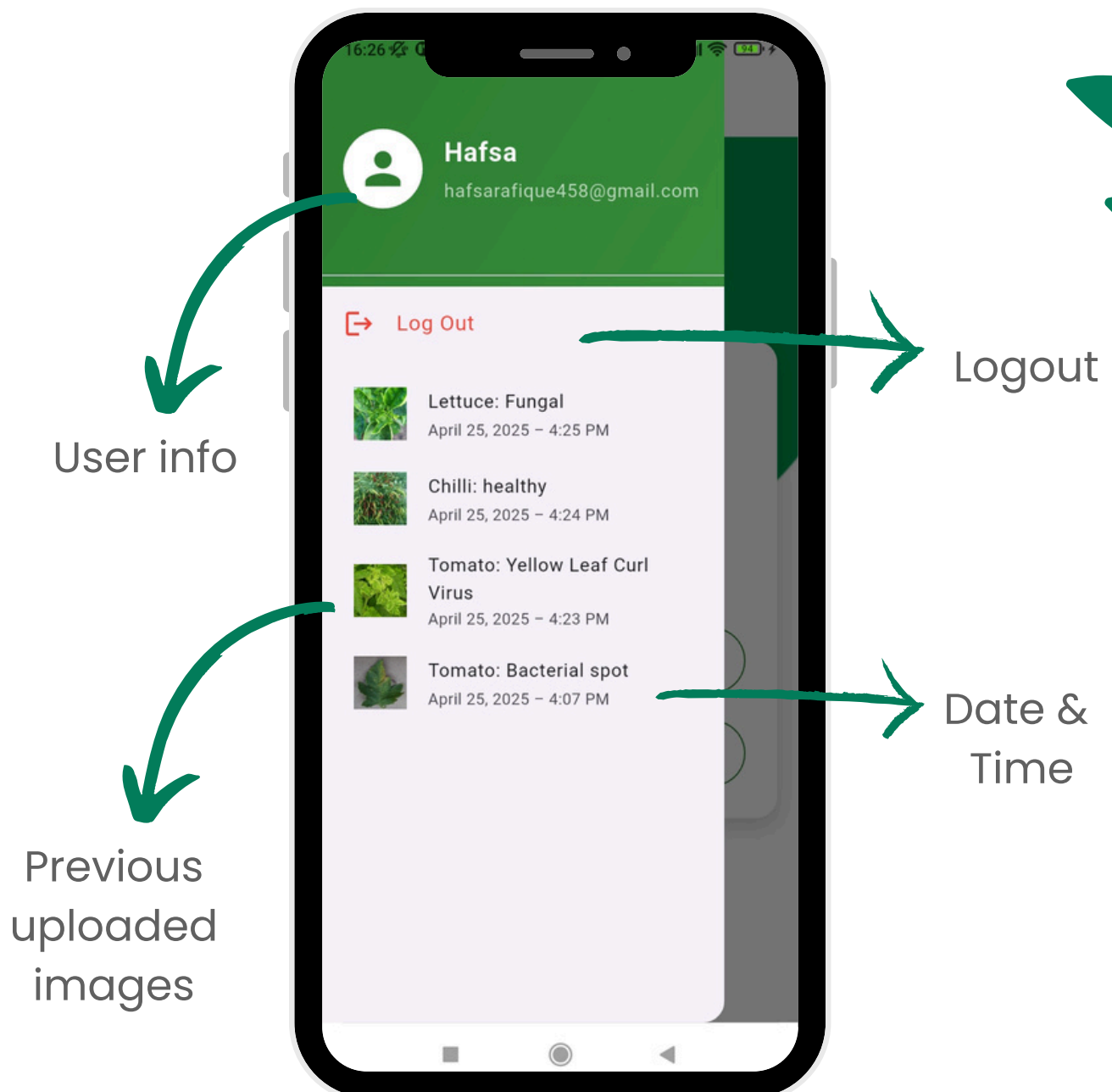
Stem_dens: Stem density (Stems/m²)

Lettuce

Temperature:

Humidity: (%)

TDS Value: Total dissolved solids (ppm)

pH Level

Chilli

Temperature-(Celsius):(°C)

Temperature_F:(°F)

RainFall-(MM): Water level

Humidity

Previous Predictions

User info

Logout

Previous uploaded images

Date & Time

Note: *The drawer can be accessed by clicking on the three lines on home page.*

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