TEAM ID: PNT2022TMID22638

FERTILIZER RECOMMENDATION SYSTEM FOR DISEASE PREDICTION

PROPOSED SOLUTION

- The proposed solution of this project uses Deep Learning algorithm toclassify leaves, and identify the disease and suggest the fertilizers.
- The Deep learning solution includes the MobileNetV2 and VGG19 model fortraining.
- Based on the leaf disease detected, the model recommend fertilizer forprevention.
- The Farmers, Researches are the end users get benefited by this system.

Novelty

- More accurate than other models.
- The model is embedded in a website which is easy to use by the customers.
- This system is more robust by incorporating more image dataset with widervariations.
- This system also estimates the probability of the infected plant.

Feasibility

- Improves accuracy, generality and training efficiency
- Quick diagnosis of disease which is a significant part in early detection of disease.
- Farmers can easily interact with the portal through simple User Interface.
- Can reduce the cost which may occur due to wrongly used fertilizer.

Scalability

- It helps the farmers to pick the right fertilizer toward the start of the product cycleand amplify the yield.
- This system can be used by anyone in the world.
- Instantly gives the results.

Social Impact

- Plant growth can be enhanced.
- Ensures plants are getting supplied with every nutrient they need.
- Multiple crops yields every season.
- It help support people's nutritional needs.

The Business Model Canvas

Designed for:	Designed by:	Date:	Version:

Key Partners

- ✔ IT and Software
- ✔ Distribution Channel

Key Activities

- ✔ Leaf Disease detection
- ✔ Fertilizer recommendation based on identified disease.

Key Resources

- ✔ Datasets from open source like Kaggle.
- ✔ Deep learning model like VGG19 and MobileNetV2.

Value Propositions

- ✔ Easy to use.
- ✔ Quick Response

Customer Relationships

- ✔ Customer friendly user Interface
- ✔ Time and Cost saving

Channels

Mobile App

Videos

Customer Segments

- ✔ Can be able to upload image of the leaf.
- ✔ Fertilizers are recommended in the portal

Cost Structure

- ✔ Maintenance cost
- ✔ Distributers