APP NAME : AGRI IQ

TEAM NAME : SMARTICLES

DOMAIN : AGRICULTURE

TEAM MEMBERS :

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S. RISHI

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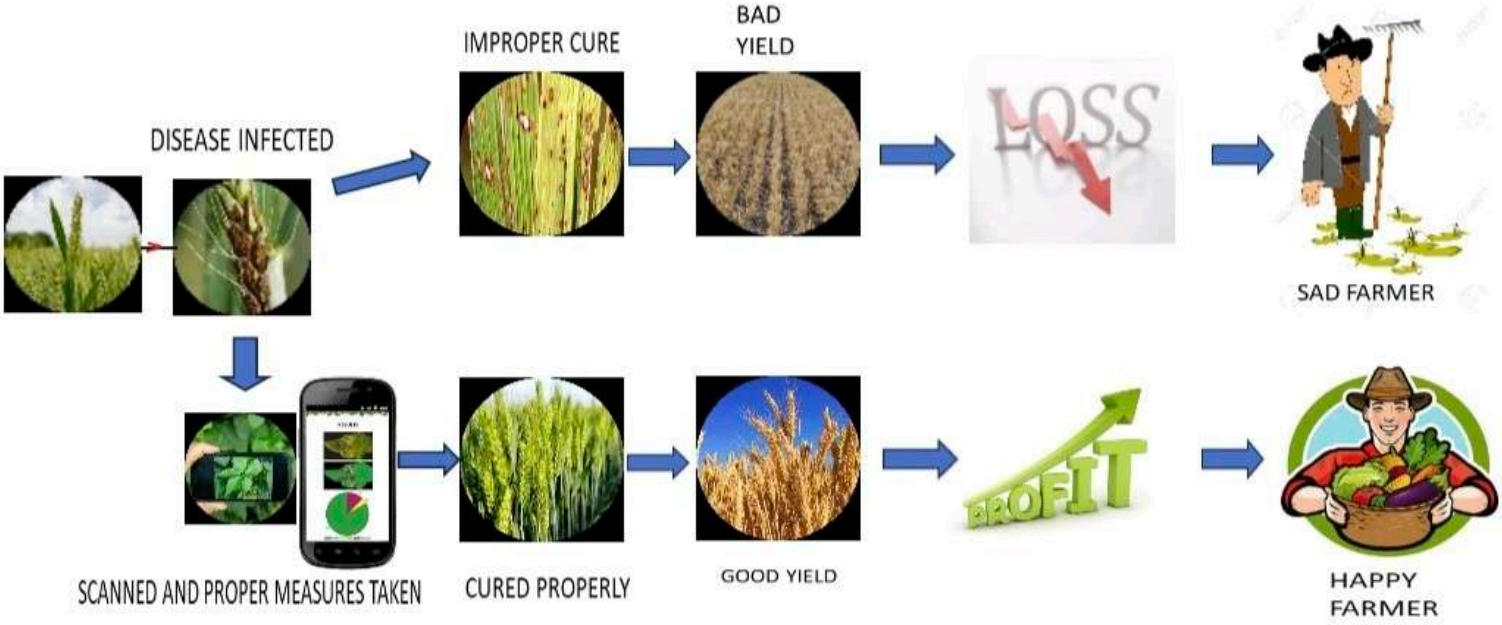
COLLEGE : SVCE

Photo-based plant/crop disease detection and treatment to identify disease

APPROACH

- *The world faces a pressing challenges in safeguarding the health of plants/crops. Disease outbreak can devastate the crops, harm ecosystem & effect food security.*
- *A website is developed for the interface part of project .In the website, one can upload the photo of the plant .Upon uploading the photo, the model comes in and detects the plant diseases accurately and provides treatment recommendations.*
- *User can upload the infected plant/crop picture to get the prevention/cure for it through AI.*

USE CASE


DISEASE INFECTED
IMPROPER CURE
BAD YIELD
LOSS
SAD FARMER
SCANNED AND PROPER MEASURES TAKEN
CURED PROPERLY
GOOD YIELD
PROFIT
HAPPY FARMER

TENSOR FLOW

- ALGORITHM :

Sequencial CNN model algorithm is used -

A sequencial product is appropriate for a plane stack of layers, where each layer has one tensor input and one tensor output.

Our AI model consists 8 layers, which consists Input layer, Output layer and 6 other layers. In the input layer the normalization of the image occurs which breaks down into 0-255 pixels which is used to train the AI model and give accurate results.

WHY TENSOR FLOW ?

- Better Visualisation
- Effective Debugging
- Captures the Model's Training more Accurately
- Better than Pychan

TECH STACK

- Tensor flow :Open-source machine learning framework developed by google.
- React JS :Java Script library for building user Interfaces.
- Node JS :Java Script runtime for building server applications.
- Keras :High-level deep learning and artificial neural networks.
- Open CV : Computer vision and image processing library.