Solution Fit:

In Fertilizer Recommendation system for Disease Classification, we are proposed the solution are splatted into the Submodules which are denote below:

Introduction:

In Modern World improving the technology and upgrading the automation process. Currently the industry movie on Industry 4.0 revolution by implementing of Artificial Intelligence (AI) on various cross domain like Machineries, Auto Driving Cars, Self-Control Robots, etc.…

Solution:

Dataset:

We are collecting an Experimental lab Dataset to process train the AI Model to obtain the maximum Accuracy. In minimum of time, we are process the project using the published dataset called Plant Village and Plant doc.

Pre-Processing:

In Pre-Processing process, we are converting the image size into an 224x224 based on the model performance.

In preprocessing we are doing the same technique to scale the image to obtain the maximum accuracy

- Augmentation technique
- Image Rescaling
- Image Resize

Model Selection:

In Deep Learning we have the separate module for the Computer Vision Neural Network task which should be applied on image classification, Object Detection, segmentation etc.

In Deep learning we have the Specific neural network that can extract the feature from the image and train the Network.

We are selecting the Transfer learning Concept to train the model with High-Accuracy.

Transfer Learning:

Transfer learning is a research problem in machine learning that focuses on storing knowledge gained while solving one problem and applying it to a different but related problem

Transfer learning Models we are used for obtain the High Accuracy are

- ResNet-50

- Efficient Net – B4
- MobileNetV2
- Xception- Net

Web application:

In we are integrate the web page and Machine Learning Model using the flask framework and deploy in cloud using the IBM Cloud.

In web application contain the four more pages:

Page1: In first page contain the basic web page to introduction to the Web Application

Page2: In Second Page it will fetch the image from the user and it sent to the back-end (Machine Learning Model)

Page3: In third page contain the important part of an project machine learning Module image classification in cloud

Page 4: In final part of the web application has showing the result for the Disease can classified in the DL Model.

Conclusion:

In our Solution we are implementing the disease classification using the Deep Learning(DL) technique to process an image and classify the Leaf disease in an plant and it integrate with the web application implemented in IBM Cloud