# **Plant Disease Classification**

| **Project Title** | **Plant Disease Classification** |
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| **Technologies** | **Computer Vision** |
| **Domain** | **Agriculture** |
| **Project Difficulties Level** | **Advance** |

**Attribute Information:**

This project is about collecting images of various infected, good and seemingly infected plant leafs. Then apply image processing on the images and predict the infected plant leaf’s using Deep Learning + ImageProcessing.

**Dataset:** kaggle datasets download -d vipoooool/new-plant-diseases-dataset

Download the dataset using above API command👆

**Technologies:** OpenCV(Computer vision) and CNN and Transfer Learning

**Prerequisites**: Deeplearning, Computer vision/OpenCV, Image Segmentation

**Steps Involved in Image Processing: -**

1. Image Acquisition
2. Image Enhancement
3. Image Restoration
4. Color Image Processing
5. Compression
6. Image Segmentation
7. Mobile Application (Optional)

**Libraries Involved:**

* TensorFlow
* Keras
* Scikit Learn
* Pickle
* OpenCV

**Be ready to answer below mentioned questions:**

**Ques:** Can you describe the Image Segmentation Task? How is Image Segmentation different from Object Recognition?  
**Ques:** How CNN works? What is the role of Pooling?

**Ques:** Explain how RCNN works? How is Masked RCNN different?

**Ques:** Explain the need of Image Preprocessing for Computer Vision Tasks?