# Challenge 1 Project proposal: Mobile Application for Automatic Plant Disease Diagnosis Using Deep Learning Architectures

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## 1  Problem

The digital image processing is a series of popular techniques used in disease detection in plants. These techniques have difficulties in bringing them to a viable end product; on the one hand, there is the fact that you need an expert in the area that can identify essential characteristics such as color, texture, morphology, and edges that can explain the absence or not of a particular disease. More importantly, the difficulty of these classic techniques to deal with images in their natural state.

## 2  What's new about this app?

## 3  Similar Apps

We have looked for applications that are similar to our proposal, and we found for Android in Play Store a couple of applications that through a sick plant picture it can determinate which sickness is affecting the plant and suggest some treatment.

### 3.1  Plantix

This app allows farmers to receive a diagnosis and the appropriate treatment tips from a picture for sick plant.The only requirement is having a phone with camera and internet connection, and from a picture of the sick plant the app it is capable to identify the sickness and suggest possible treatments.

### 3.2   Yara CheckIT

This app gives farmers a photographic library of the crops to allow a simple and fast identification of possible nutrient deficiencies. Once the cause of the deficiency is established, the app gives the further information on how the deficiency affects that crop, what soil types are prone to this type of deficiency and what factors will make a deficiency worse. CheckIT provides a fertilizer recommendation to treat the identified deficiency, as well as alternative products which allow preventive treatment for the following growing season.

# 4   Platform

# 5   License

# 6   Marketing method