# Intro

The purpose of this project is to produce an Android smart phone application which can identify plants and log the location of each successful plant identification to provide a helpful and informative service; while producing useful data of plant locations around the world, which can be used to understand which plants grow best in chosen areas.

Currently, plant identification is carried out via a lengthy search within expensive literature which is highly time consuming, or the use of an existing mobile app; such as PictureThis (for IOS).

These apps do not provide the ability for a user to self-identify a plant which is necessary for incorrect identifications, as well as new plant breeds; and differentiate between indoor and outdoor plants, thus providing cluttered data on which plants grow in certain areas.

# Background

Horticulture is a passion which has driven my upbringing, the barrier of plant identification has always been blocked by expensive literature which is exceptionally time consuming to use and in-accurate mobile applications. This project will enable people who are both inexperienced and experienced with plant identification to classify unknown plants,

The purpose of this project is to produce a smart phone app which can identify plants and log the location of each successful plant identification to provide a helpful and informative service while providing useful data of plant locations around the world.

Currently, plant identification is carried out via a lengthy search within textbooks or the use of a mobile app, these current resources don’t pair this information on what plants grow in a user’s chosen area, and this project enables users to find what plants grow in a specific location.

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Existing apps on Apple smart phones such as PictureThis, GardenAnswers and iplant provide the ability for users to upload their own photos to have the plant identified automatically. These apps

Picture this doesn’t provide the ability to differentiate between plants outdoors or indoors, thus the populated map can have drastically different plants to what is actually grown outdoors.

Professional use, the apps do not provide the ability for a user driven decision tree, to enable professionals to confirm their identification.

Show you where else they are found in the world, with other user uploaded images, where they are native to

This will allow people to identify indoor and outdoor plants, this app may also be used show what plants grown in certain areas, as the data uploaded by users will populate the map, producing this functionality.

The system will use the Google Vision API to identify the users photo of each plant and provide a few recommendations of the plants identity, the system will use the GPS metadata within the photo to log the plant location, this will then be used in future searches to show plants found in a specific location.

The business case for this project is to produce a plant identification app to Identify and Globally Map plants by:

* Identifying images of plants.
* Mapping identified plants on their found location on an interactive map, providing two layers for indoor and outdoor plants.
* Allow users to self-identify plants and upload their images to the interactive map.

Background:

Horticulture is a passion among members of my family, yet plant identification can be cumbersome, expensive and time consuming due to the inaccuracy of currently mobile application and lack of

Will have been useful to map public gardens such as Kew or the Eden project

Horticulture has been a large influence within

Provide map layering between indoors and outdoors

--IF BUSINESS OBJECTIVES—

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