# Setting up the Service

* Go to portal.azure.com and sign in
* Press “Create a resource” and search for custom vision. Click on custom vision result and press create
* Enter information to create service and use “both” for create options (you can have one service at the free pricing tier)

Training is to create models

Prediction is running an already created model as a service

* When deployment is complete go to the resource
* Go to quick start and click on Custom Vision Portal under 2
* Sign into portal using your Azure account
* Click on “New Project”

A screenshot of a cell phone

Description automatically generated

* Enter information for the new project as above and press “create project”

# Feature Extraction

* Unzip files from the Collateral\Images Directory
* Click on Add Images and add everything under VisualRecognition\training\Maple Tree
* For my tags enter the term Maple and press Upload XX Files

Select the negative tag when your model is coming up with false positives and you want to provide examples of what is not a particular tag, this can also reduce computation cost. This is known as a negative sample.

* Use the “Add Images” button to repeat this process for VisualRecognition\training\Palm Tree and VisualRecognition\training\Podocarpus Tree, entering the correct tags. Also add the five images in the unknown folder and add then to a new tag called unknown that is a negative sample.

# Classification

* Now we can train our model. Press the train button, that’s it… Since we have a very small dataset with only a few images we can use “Quick Model” on the popup and press train
* Look at our training information for the first iteration. One thing to note is that MS recommends at least 50 images per tag.

# Prediction

* Now we can test our model. Press the “Quick Test” Button.
* Press browse local files and select one under the VisualRecognition\test directory. Try a few. Are you satisfied with the results?

In this model we have features extracted of three very different trees so we can get away with little training data. However, if we wanted to train for more similar trees, such as oaks and maples, we may need more training data, including negative samples