Step 1:

* Import necessary libraries
* Indicate where training and validation data are located
* Specify the size of the images (in pixels)
* Import data into the training dataset

Text

Description automatically generated

Step 2:

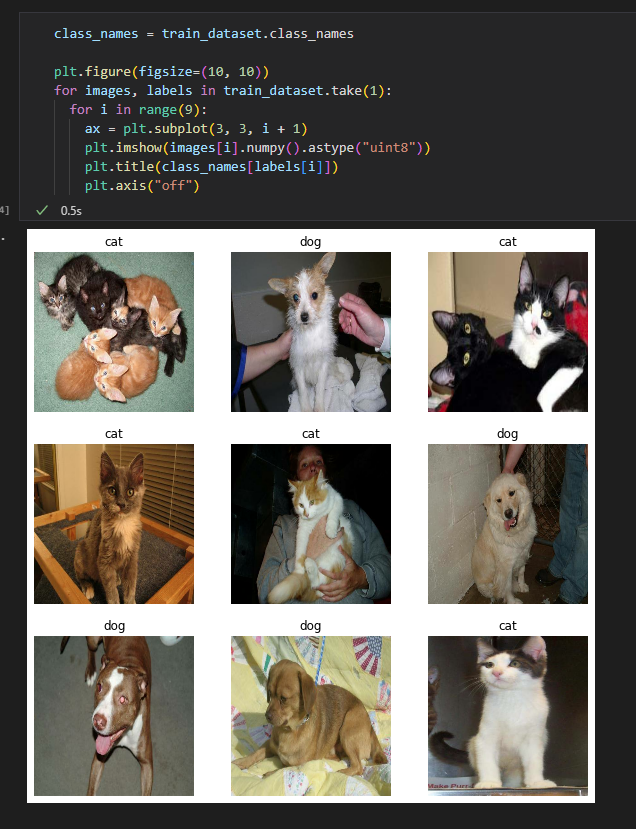
* Import data into validation dataset

Text

Description automatically generated

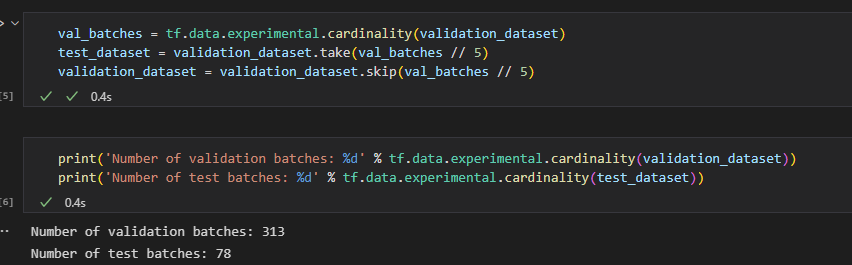
Step 3:

* Display some of the images of each classification set
* This is to ensure that they are labeled correctly and can be accessed



Step 4:

* Divide the data up to create a test dataset for later use



Step 5:

* Autotune automatically determines how much data needs to be prefetched

Text

Description automatically generated

Step 6:

* Augment data through flipping, rotation, and translation. This creates a larger variety of data

A picture containing text, grass, different, screenshot

Description automatically generated

Step 7:

* Adjust the size of the images to be compatible with the base model about to be imported

Text, website

Description automatically generated

Step 8:

* Import the base model used for transfer learning

Graphical user interface, text

Description automatically generated

Step 9:

* Convert each image to a 5x5x1280 block of features

Text

Description automatically generated

Step 10:

* Freeze the layers of the base model to ensure weights don’t change with further training

Text

Description automatically generated

Step 11:

* Generate predictions from the base model and augmentation

Text

Description automatically generated

Step 12:

* Create a prediction per layer

Text

Description automatically generated

Step 13:

* Create a model by combining the base model, augmentation, and rescaling

Text

Description automatically generated

Step 14:

* Compiling the model

Text

Description automatically generated

Step 15:

* Train the model

Text

Description automatically generated

Step 16:

* Display the training and validation accuracy/loss

Text

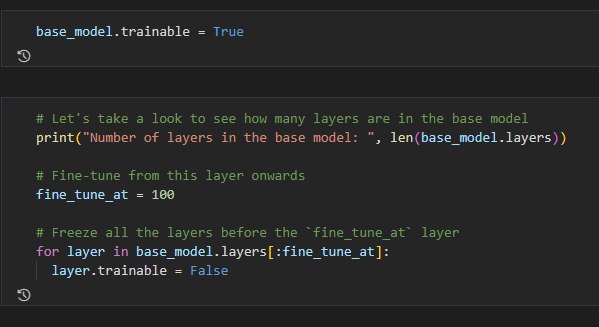
Description automatically generated

Graphical user interface, chart, line chart

Description automatically generated

Step 17:

* Unlock the base model to allow changes



Step 18:

* Adjust the model to allow further training

Graphical user interface, text

Description automatically generated

Step 19:

* Increase accuracty with further training

Text

Description automatically generated

Step 20:

* Show loss/accuracy curve for additional training done to base model

Text

Description automatically generated

Chart

Description automatically generated

Step 21:

* Verify performance on test data

Text

Description automatically generated