

TRAIN AND SAVE THE MODEL

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In [18]: 1238/24

Out[18]: 51.583333333333336

Fitting the Model

In [21]: model.fit(x_train, steps_per_epoch=len(x_train), validation_data=x_test, validation_steps=len(x_test), epochs=10)

Epoch 1/10
475/475 [=====] - 363s 764ms/step - loss: 0.1242 - accuracy: 0.9575 - val_loss: 0.1193 - val_accuracy: 0.9542
Epoch 2/10
475/475 [=====] - 358s 753ms/step - loss: 0.1344 - accuracy: 0.9525 - val_loss: 0.0698 - val_accuracy: 0.9781
Epoch 3/10
475/475 [=====] - 352s 740ms/step - loss: 0.1263 - accuracy: 0.9590 - val_loss: 0.0694 - val_accuracy: 0.9758
Epoch 4/10
475/475 [=====] - 352s 740ms/step - loss: 0.1149 - accuracy: 0.9614 - val_loss: 0.1659 - val_accuracy: 0.9458
Epoch 5/10
475/475 [=====] - 352s 740ms/step - loss: 0.1210 - accuracy: 0.9592 - val_loss: 0.0914 - val_accuracy: 0.9706
Epoch 6/10
475/475 [=====] - 354s 745ms/step - loss: 0.1085 - accuracy: 0.9631 - val_loss: 0.0548 - val_accuracy: 0.9843
Epoch 7/10
475/475 [=====] - 354s 744ms/step - loss: 0.0999 - accuracy: 0.9664 - val_loss: 0.0750 - val_accuracy: 0.9709
Epoch 8/10
475/475 [=====] - 358s 754ms/step - loss: 0.0935 - accuracy: 0.9674 - val_loss: 0.0609 - val_accuracy: 0.9796
Epoch 9/10
475/475 [=====] - 355s 748ms/step - loss: 0.0982 - accuracy: 0.9659 - val_loss: 0.0657 - val_accuracy: 0.9781
Epoch 10/10
475/475 [=====] - 368s 774ms/step - loss: 0.0923 - accuracy: 0.9705 - val_loss: 0.0978 - val_accuracy: 0.9700

Out[21]:

In [22]: model.save('vegetables.h5')

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In [22]: model.save('vegetables.h5')

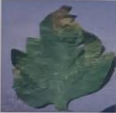
In [23]: from tensorflow.keras.models import load_model

In [24]: from tensorflow.keras.preprocessing import image

In [25]: model=load_model('vegetables.h5')

In [26]: img=image.load_img(r"/content/drive/MyDrive/Fertilizers_Recommendation_System_For_Disease_Prediction/Dataset Plant Disease/Veg-dataset/Veg-dataset/t

In [27]: img

Out[27]: 

In [28]: x = image.img_to_array(img)

In [29]: x

Out[29]: array([[157., 156., 188.],
               [160., 159., 191.],
               [161., 160., 192.],
               ...,
               [150., 146., 179.]])

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