

Date	07 November 2022
Team ID	PNT2022TMID12899
Project Name	Fertilizers Recommendation System for disease prediction

```
model=Sequential()
```

```
model.add(Convolution2D(32,(3,3),input_shape=(128,128,3),activation='relu')
)
```

```
model.add(MaxPooling2D(pool_size=(2,2
```

```
)))model.add(Flatten())
```

```
model.add(Dense(units=40,kernel_initializer='uniform',activation='relu'))
model.add(Dense(units=70,kernel_initializer='random_uniform',activation='relu'))
model.add(Dense(units=6,kernel_initializer='random_uniform',activation='softmax'))
```

```
model.compile(loss='categorical_crossentropy',optimizer="adam",metrics=["accuracy"])
```

```
model.fit(x_train,steps_per_epoch=168,epochs=3,validation_data=x_test,validation_steps=52)
```

```
Epoch 1/3
168/168 [=====] - 45s          1.480 -
229ms/step - loss:                2
accuracy: 0.4315 - val_loss: 119.8421 - val_accuracy: 0.5577
```

```
Epoch 2/3
168/168 [=====] - 38s          1.056 -
223ms/step - loss:                2
accuracy: 0.5982 - val_loss: 107.7073 - val_accuracy: 0.5288
```

```
Epoch 3/3
168/168 [=====] - 36s          0.840 -
216ms/step - loss:                6
accuracy: 0.6905 - val_loss: 97.8494 - val_accuracy: 0.8173
```

```
<keras.callbacks.History at 0x1e34c9b7310>
```

```
model.save(r'C:\Users\uma25\project\flask\uploads\fruit.h5')
```