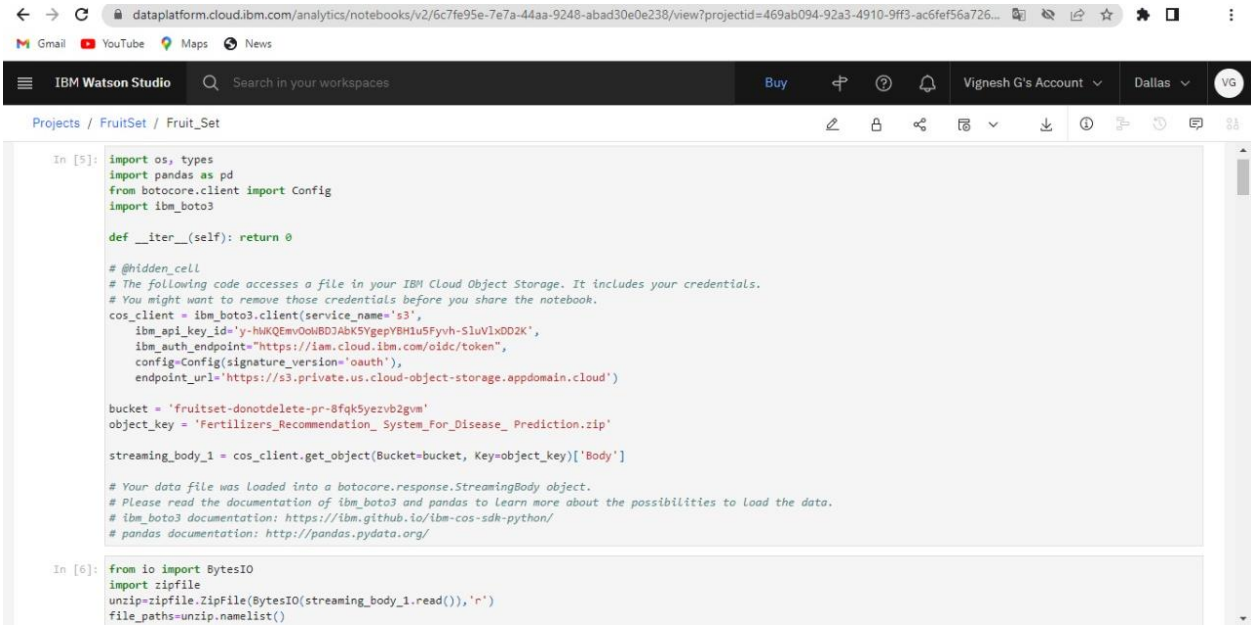
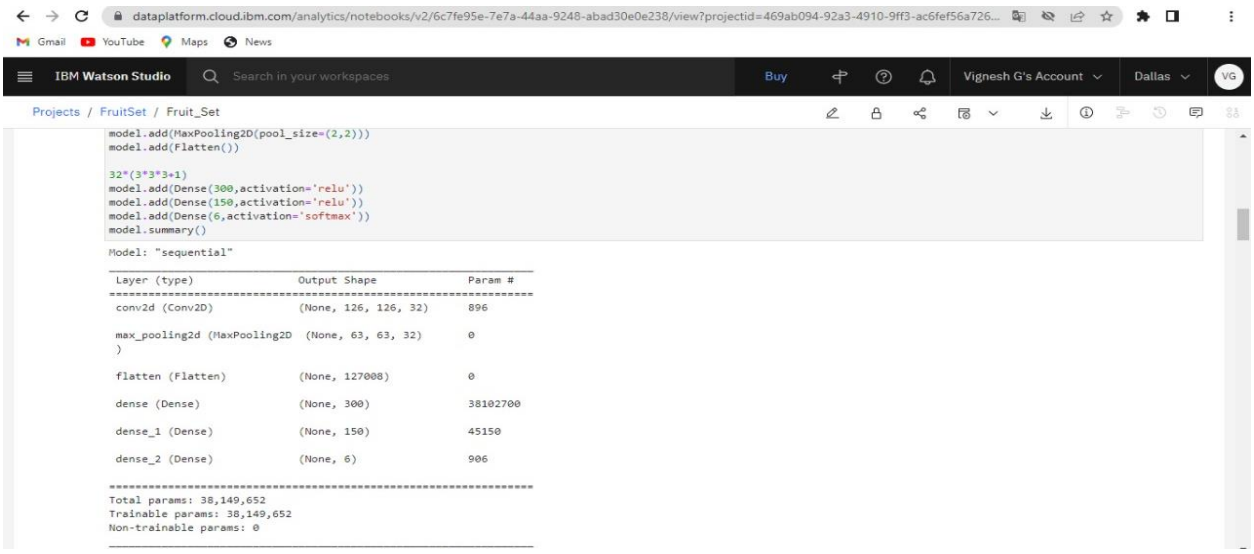
Train The Model On IBM

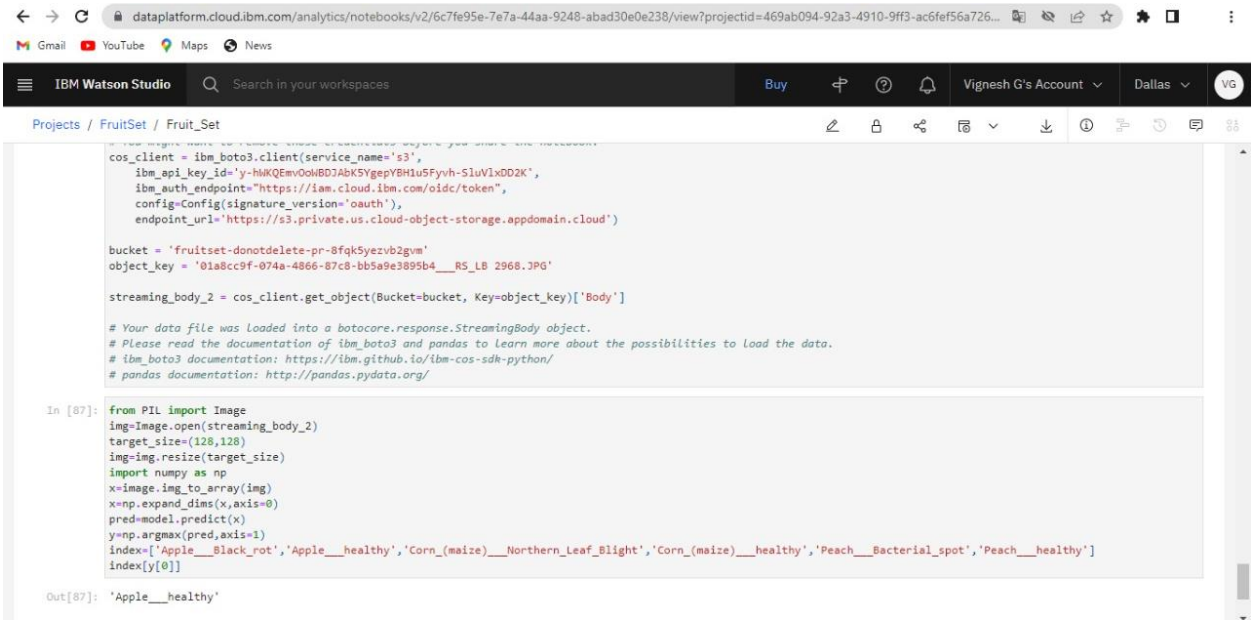
Team ID	PNT2022TMID30319
Project Name	Fertilizers Recommendation System For Disease Prediction

In IBM cloud using IBM watson machine learning service to train the both fruit and vegetable.

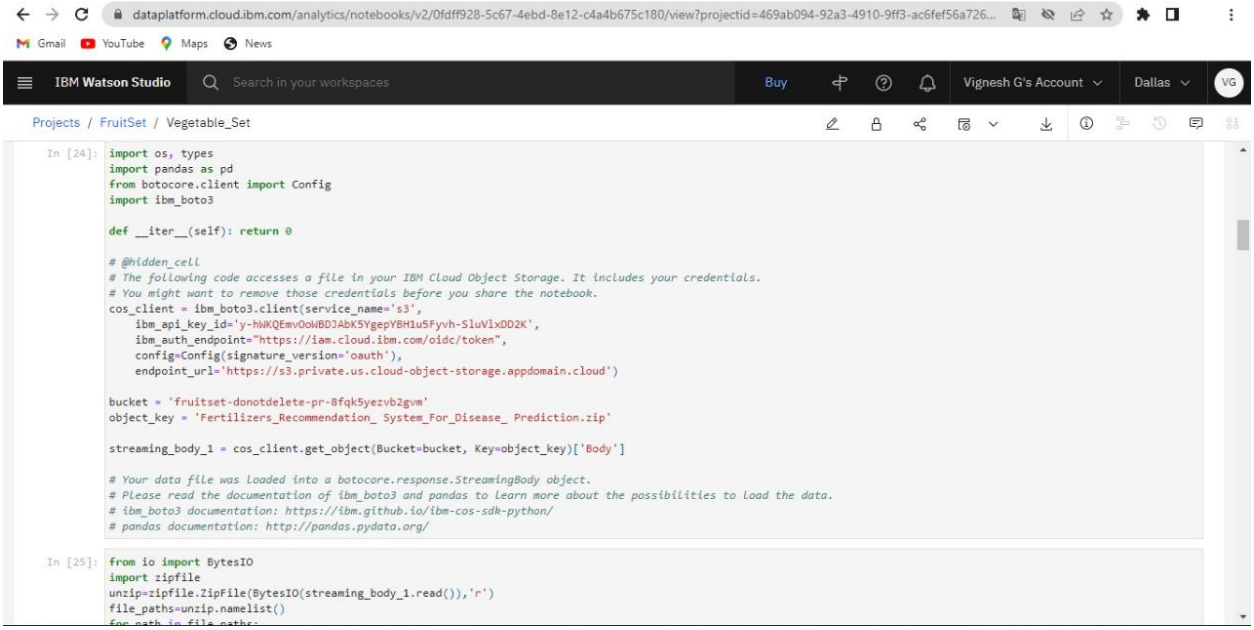
Fruit model :

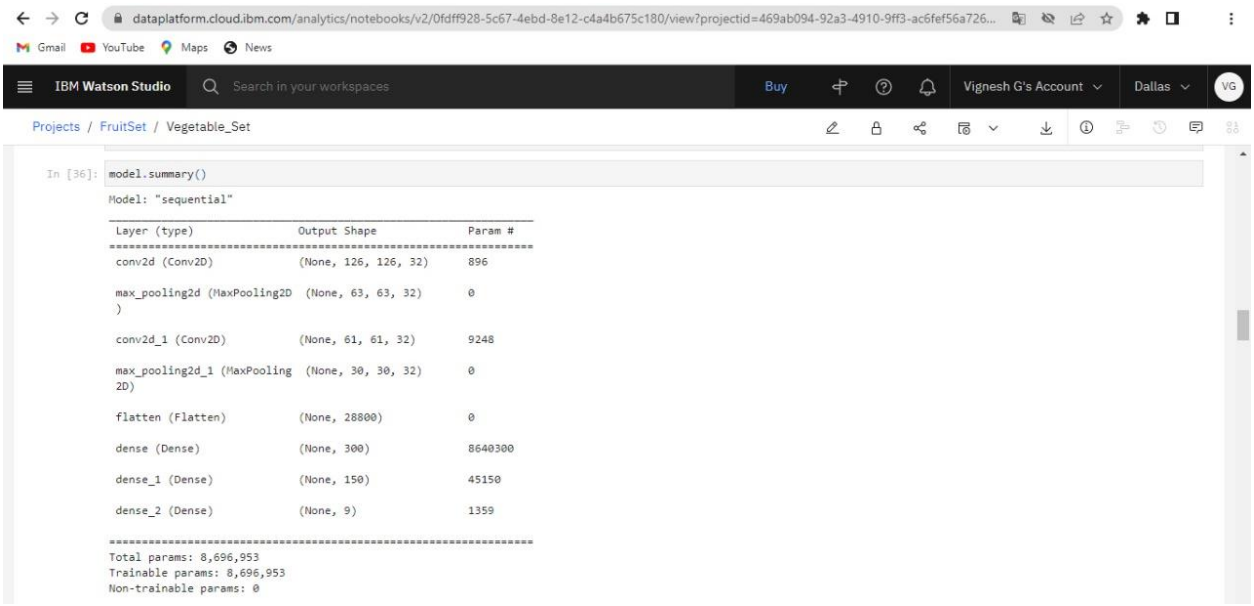


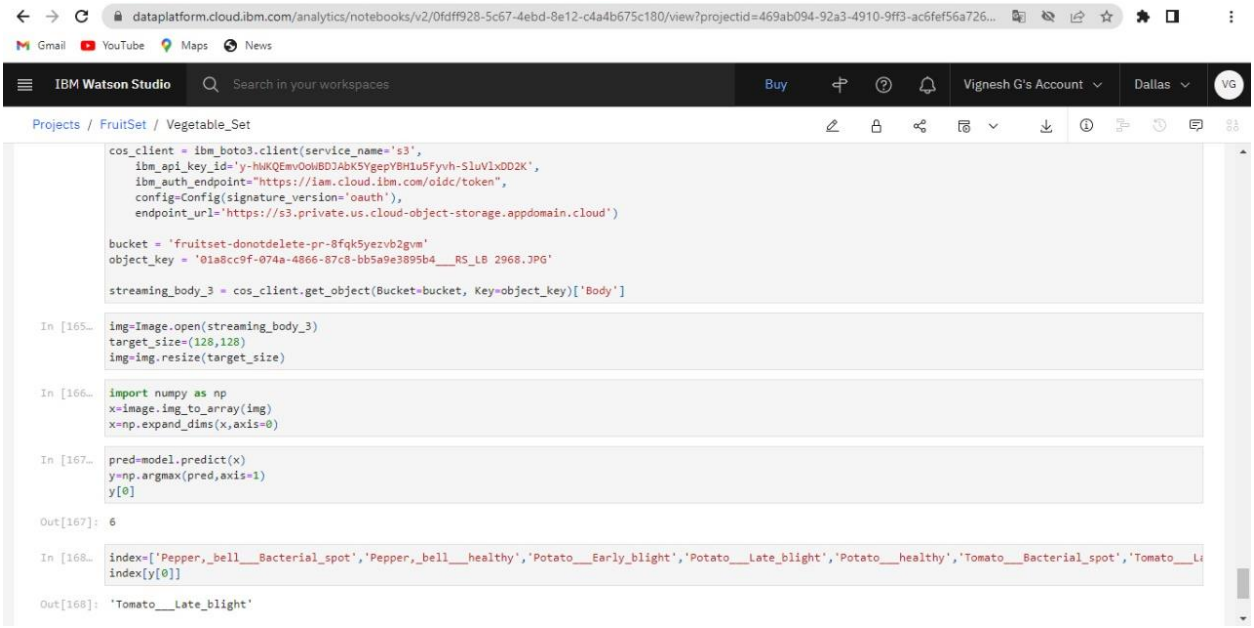




Vegetable Model :




dataplatform.cloud.ibm.com/analytics/notebooks/v2/0fdff928-5c67-4ebd-8e12-c4a4b675c180/view?projectid=469ab094-92a3-4910-9ff3-ac6fef56a726...
Gmail
YouTube
Maps
News
IBM Watson Studio
Search in your workspaces
Buy
Vignesh G's Account
Dallas
VG
Projects / FruitSet / Vegetable_Set
In [36]:
model.summary()
Model: "sequential"
Layer (type) Output Shape Param #
conv2d (Conv2D) (None, 126, 126, 32) 896
max_pooling2d (MaxPooling2D (None, 63, 63, 32) 0
)
conv2d_1 (Conv2D) (None, 61, 61, 32) 9248
max_pooling2d_1 (MaxPooling (None, 30, 30, 32) 0
2D)
flatten (Flatten) (None, 28800) 0
dense (Dense) (None, 300) 8640300
dense_1 (Dense) (None, 150) 45150
dense_2 (Dense) (None, 9) 1359
Total params: 8,696,953
Trainable params: 8,696,953
Non-trainable params: 0


dataplatform.cloud.ibm.com/analytics/notebooks/v2/0fdff928-5c67-4ebd-8e12-c4a4b675c180/view?projectid=469ab094-92a3-4910-9ff3-ac6fef56a726...
Gmail
YouTube
Maps
News
IBM Watson Studio
Search in your workspaces
Buy
Vignesh G's Account
Dallas
VG
Projects / FruitSet / Vegetable_Set
cos_client = ibm_boto3.client(service_name='s3',
ibm_api_key_id='y-hWKQEmvOoWBDJAbK5YgepYBH1u5Fyvh-SluV1xDD2K',
ibm_auth_endpoint="https://iam.cloud.ibm.com/oidc/token",
config=Config(signature_version='oauth'),
endpoint_url='https://s3.private.us.cloud-object-storage.appdomain.cloud')
bucket = 'fruitset-donotdelete-pr-8fqk5yezvb2gvm'
object_key = '01a8cc9f-074a-4866-87c8-bb5a9e3895b4___RS_LB 2968.JPG'
streaming_body_3 = cos_client.get_object(Bucket=bucket, Key=object_key)['Body']
In [165...
img=Image.open(streaming_body_3)
target_size=(128,128)
img=img.resize(target_size)
In [166...
import numpy as np
x=image.img_to_array(img)
x=np.expand_dims(x,axis=0)
In [167...
pred=model.predict(x)
y=np.argmax(pred,axis=1)
y[0]
Out[167]: 6
In [168...
index=['Pepper,_bell___Bacterial_spot','Pepper,_bell___healthy','Potato___Early_blight','Potato___Late_blight','Potato___healthy','Tomato___Bacterial_spot','Tomato___La
index[y[0]]
Out[168]: 'Tomato___Late_blight'