



Model Development Phase

Date	01 July 2024
Team ID	SWTID1720084679
Project Title	CovidVision: Advanced COVID-19 Detection from Lung X-rays with Deep Learning
Maximum Marks	10 Marks

Initial Model Training Code, Model Validation and Evaluation Report

The initial model training code will be showcased in the future through a screenshot. The model validation and evaluation report will include a summary and training and validation performance metrics for multiple models, presented through respective screenshots.

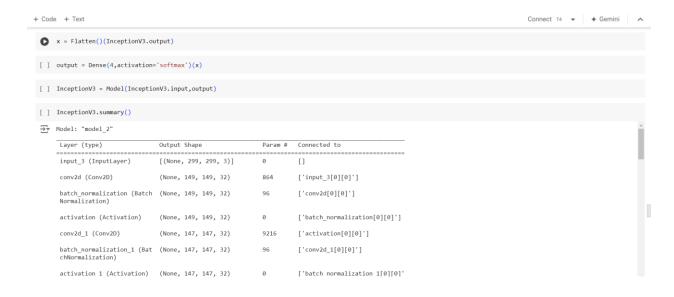
Initial Model Training Code (5 marks):

Paste the screenshot of the model training code

~	Inception
[]	<pre>#!pip install tensorflow==2.13</pre>
0	<pre>train = train_datagen.flow_from_directory(trainPath,target_size=(299,299),batch_size=16) test = test_datagen.flow_from_directory(testPath,target_size=(299,299),batch_size=16)</pre>
₹	Found 3476 images belonging to 4 classes. Found 1307 images belonging to 4 classes.
[]	from tensorflow.keras.applications.inception_v3 import InceptionV3 from tensorflow.keras.layers import Dense,Flatten from tensorflow.keras.models import Model
[]	<pre>InceptionV3 = InceptionV3(include_top=False,input_shape=(299 ,299,3))</pre>
₹	Downloading data from https://storage.googleapis.com/tensorflow/keras-applications/inception_v3/inception_v3/weights_tf_dim_ordering_tf_kernels_notop.h5 87910968/87910968 [====================================







Model Validation and Evaluation Report (5 marks):







ResNet Model	<pre>PResnet Trom tensorflow.keras.applications.resnet50 import ResNet50 From tensorflow.keras.layers import Dense,Flatten From tensorflow.keras.models import Model Tesnet50 = ResNet50(include_top=False,input_shape=(224,224,3)) Downloading data from https://storage.googleapis.com/tensorflow/keras-applications/resnet 94765736/94765736 [==========] - 0s Ous/step X = Flatten()(resnet50.output) Output = Dense(4,activation='softmax')(x) resnet50 = Model(resnet50.input,output)</pre>	resset50.compile(loss*categorical_crossentropy',optimizer='adam',metrics=('accuracy')) resset50.fit(train,validation_data=test.epochs=2) foot 2 218/218 [====================================
Incepti on	[] train = train_datagen.flow_from_directory(trainPath,target_size=(299,299),batch_size=16) test = test_datagen.flow_from_directory(testPath,target_size=(299,299),batch_size=16) Found 3476 images belonging to 4 classes. [] from tensorflow.keras.applications.inception_v3 import InceptionV3 from tensorflow.keras.layers import Dense,Flatten from tensorflow.keras.models import Model [] InceptionV3 = InceptionV3(include_top=False,input_shape=(299,299,3)) Downloading data from https://storage.googleapis.com/tensorflow/keras-applications/inception_v3/inception_v3_we/87910968/87910968 [[] Inception().compile(loss-'categorical_crossentropy',optimizer-'sdam',metrics-('sccuracy')) ② Inception().fit(train,validation_data-test,epochs-t) ② Ispob 1/5 218/218 [
Xceptio n	<pre></pre>	Xception.complie(loss-'categorical_crossentropy',optimizer-'adma',metrics-['accuracy'])