In [184]:

```
import pandas as pd
import cv2
import numpy as np
import os
from random import shuffle
from tqdm import tqdm
import scipy
import skimage
from skimage.transform import resize
#from keras.utils.np_utils import to_categorical
import tensorflow as tf
print(os.listdir("/home/vinicius/Documentos/UTFPR/IA/projeto_ia/Inceptionv3_Pneumonia/chest_xray/chest_xray"))
```

```
['.DS_Store', 'test', 'train']
```

In [185]:

```
print(os.listdir("/home/vinicius/Documentos/UTFPR/IA/projeto_ia/Inceptionv3_Pneumonia/chest_xray/chest_xray/train"))
```

```
['.DS_Store', 'NORMAL', 'PNEUMONIA']
```

In [186]:

```
from sklearn.model_selection import train_test_split

TRAIN_DIR = "/home/vinicius/Documentos/UTFPR/IA/projeto_ia/Inceptionv3_Pneumonia/chest_xray/chest_xray/train"
TEST_DIR = "/home/vinicius/Documentos/UTFPR/IA/projeto_ia/Inceptionv3_Pneumonia/chest_xray/chest_xray/test"

filenames = tf.io.gfile.glob(str(TRAIN_DIR))
filenames.extend(tf.io.gfile.glob(str(TEST_DIR)))

train_filenames, test_filenames = train_test_split(filenames, test_size=0.2)
print(type(test_filenames))
```

```
<class 'list'>
```

In [187]:

```
def get_data(Dir):
    X = []
    y = []
    for nextDir in os.listdir(Dir):
        if not nextDir.startswith('.'):
            if nextDir in ['NORMAL']:
                label = 0
            elif nextDir in ['PNEUMONIA']:
                label = 1
            else:
                label = 2

            temp = Dir + '/' + nextDir
            #tqdm mostra o progresso
            for file in tqdm(os.listdir(temp)):
                img = cv2.imread(temp + '/' + file)
                if img is not None:
                    img = skimage.transform.resize(img, (150, 150, 3))
                    #img_file = scipy.misc.imresize(arr=img_file, size=(299, 299, 3))
                    img = np.asarray(img)
                    X.append(img)
                    #print(X)
                    y.append(label)
                    #print(y)
    X = np.asarray(X)
    y = np.asarray(y)
    return X,y
```

In [188]:

```
#retorna as imagens de train em array
train_filenames = "".join(map(str,train_filenames ))
X_train, y_train = get_data(train_filenames)
#print(train_filenames)
```

```
100%|██████████████████| 136/136 [01:05<00:00,  2.06it/s]
100%|██████████████████| 208/208 [00:25<00:00,  8.19it/s]
```

In [189]:

```
#retorna as imagens de teste em array
test_filenames = "".join(map(str,test_filenames ))
X_test , y_test = get_data(test_filenames)
```

```
100%|██████████████████| 740/740 [06:08<00:00,  2.01it/s]
100%|██████████████████| 652/652 [01:30<00:00,  7.22it/s]
```

In [190]:

```
print(X_train.shape,'\n',X_test.shape)
#X_train
```

```
(344, 150, 150, 3)
 (1390, 150, 150, 3)
```

In [191]:

```
print(y_train.shape,'\n',y_test.shape)
```

```
(344,)
 (1390,)
```

In [192]:

```
from keras.utils.np_utils import to_categorical
#to_categorical, transforma a entrada em binario, 2 eh o numero de classe
y_train = to_categorical(y_train, 2)
y_test = to_categorical(y_test, 2)
```

In [193]:

```
#Cria uma lista com o nome das imagens
#listdir tras o nome de todos objetos contidos no diretorio
Pimages = os.listdir(TRAIN_DIR + '/' + "PNEUMONIA")
#print(Pimages)
Nimages = os.listdir(TRAIN_DIR + '/' + "NORMAL")
```

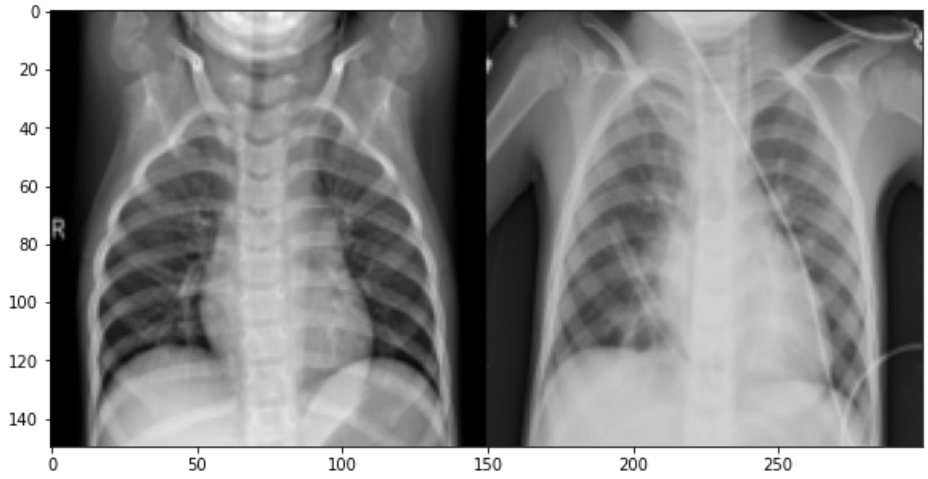
In [194]:

```
### Plotting the XRays of No Pneumonia and Pneumonia patients
```

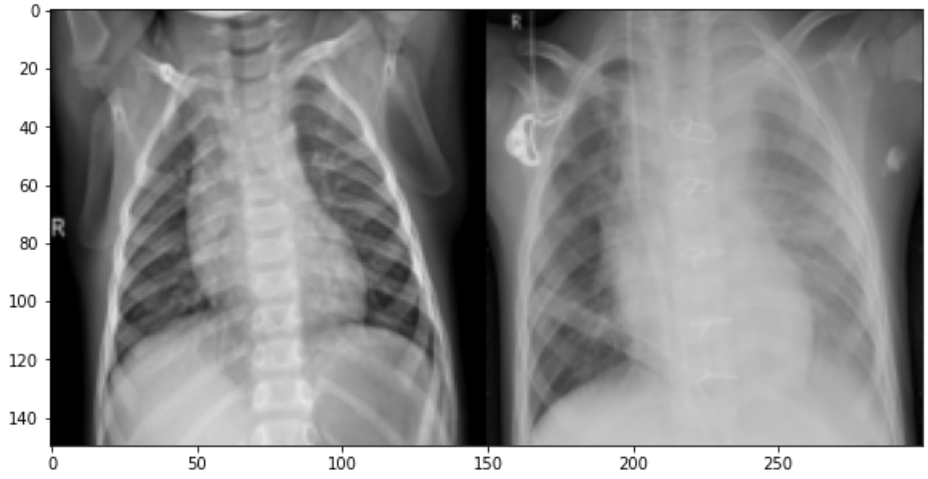
In [195]:

```
import matplotlib.pyplot as plt
def plotter(i):
    imagep1 = cv2.imread(TRAIN_DIR + '/PNEUMONIA/' + Pimages[i])
    #print(imagep1)
    imagep1 = skimage.transform.resize(imagep1, (150,150,3), mode = 'reflect')
    imagen1 = cv2.imread(TRAIN_DIR + '/NORMAL/' + Nimages[i])
    imagen1 = skimage.transform.resize(imagen1, (150,150,3), mode = 'reflect')
    pair = np.concatenate((imagen1, imagep1), axis = 1)
    print("(Left) - No Pneumonia Vs (Right) - Pneumonia")
    print("----------------------------------------------------------------------------------------------------------------------------------")
    plt.figure(figsize=(10,5))
    plt.imshow(pair)
    plt.show()
for i in range(12,15):
    plotter(i)
```

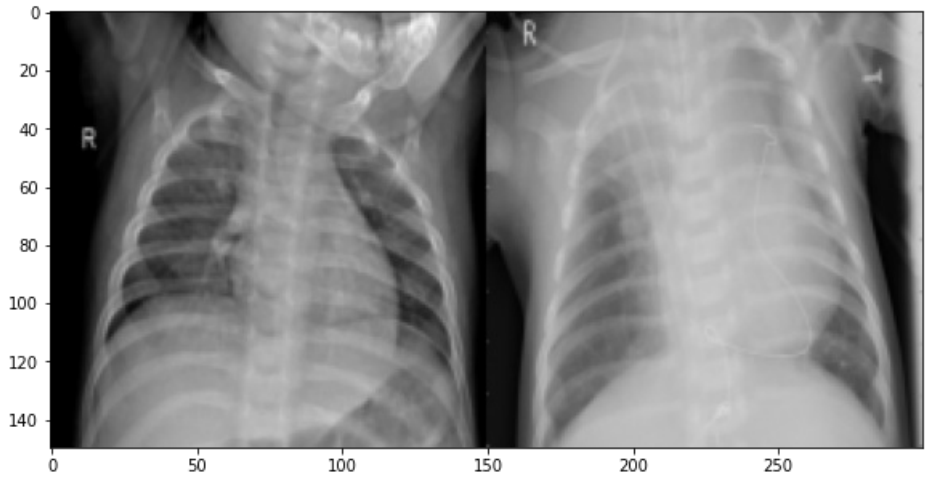
(Left) - No Pneumonia Vs (Right) - Pneumonia



(Left) - No Pneumonia Vs (Right) - Pneumonia



(Left) - No Pneumonia Vs (Right) - Pneumonia



In [196]:

```
from keras.callbacks import ReduceLROnPlateau , ModelCheckpoint , LearningRateScheduler
# reduce learning rate when a metric has stopped improving,
#monitor = quantity to be monitored
lr_reduce = ReduceLROnPlateau(monitor='val_acc', factor=0.001, epsilon=0.0001, patience=1, verbose=1)
```

```
WARNING:tensorflow:`epsilon` argument is deprecated and will be removed, use `min_delta` instead.
```

In [197]:

###Saving the weights of the best model after checkpointing in transferlearning_weights.hdf5 .

In [198]:

```
filepath="transferlearning_weights.hdf5"
#save the model after every epoch
checkpoint = ModelCheckpoint(filepath, monitor='val_acc', verbose=1, save_best_only=True, mode='max')
```

In [199]:

```
from keras.models import Sequential , Model
from keras.layers import Dense , Activation
```

```
from keras.layers import Dropout , GlobalAveragePooling2D
from keras.layers import Flatten
from keras.constraints import maxnorm
from keras.optimizers import SGD , RMSprop , Adadelta , Adam
from keras.layers import Conv2D , BatchNormalization
from keras.layers import MaxPooling2D
from keras.utils import np_utils
from keras import backend as K
#K.set_image_dim_ordering('th')
from sklearn.model_selection import GridSearchCV
from keras.wrappers.scikit_learn import KerasClassifier
```

In [200]:

```
#type(X_train)
#np.shape(X_train)
X_train=X_train.reshape(344,150,150,3)
X_test=X_test.reshape(1390,150,150,3)
```

In [201]:

```
print(np.shape(X_train))
```

```
(344, 150, 150, 3)
```

In [202]:

```
### Importing InceptionV3 from Keras but with no weights. Also define the necessary input shape of the resized images which were resized initially. The defa
```

In [203]:

```
#import tensorflow.compat.v1 as tf
#tf.disable_v2_behavior()
from keras.applications.inception_v3 import InceptionV3

# create the base pre-trained model
#model = InceptionV3(input_tensor=input_tensor, weights='imagenet', include_top=True)
base_model = InceptionV3(weights='imagenet', include_top=False )
```

In [204]:

```
from keras.applications.inception_v3 import InceptionV3
from keras.preprocessing import image
from keras.models import Model
from keras.layers import Dense, GlobalAveragePooling2D, GlobalMaxPooling2D
from keras import backend as K

# add a global spatial average pooling layer
x = base_model.output
x = Dropout(0.5)(x)
#x = GlobalAveragePooling2D()(x)
x = GlobalMaxPooling2D()(x)
# let's add a fully-connected layer
x = Dense(128, activation='relu')(x)
#x = BatchNormalization()(x)
# and a logistic layer -- let's say we have 200 classes
predictions = Dense(2, activation='sigmoid')(x)
```

In [205]:

```
from keras.models import Model
model= Model(base_model.input,predictions)
```

In [206]:

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

In [207]:

```
print(model.summary())
```

```
Model: "model_2"
__________________________________________________________________________________________________
Layer (type)                    Output Shape         Param #     Connected to
==================================================================================================
input_4 (InputLayer)            [(None, None, None,  0
__________________________________________________________________________________________________
conv2d_282 (Conv2D)             (None, None, None, 3 864         input_4[0][0]
__________________________________________________________________________________________________
batch_normalization_282 (BatchN (None, None, None, 3 96          conv2d_282[0][0]
__________________________________________________________________________________________________
activation_282 (Activation)     (None, None, None, 3 0           batch_normalization_282[0][0]
__________________________________________________________________________________________________
conv2d_283 (Conv2D)             (None, None, None, 3 9216        activation_282[0][0]
```

conv2d_283 (Conv2D) (None, None, None, 3 9216 activation_282[0][0]

batch_normalization_283 (BatchN (None, None, None, 3 96 conv2d_283[0][0]

activation_283 (Activation) (None, None, None, 3 0 batch_normalization_283[0][0]

conv2d_284 (Conv2D) (None, None, None, 6 18432 activation_283[0][0]

batch_normalization_284 (BatchN (None, None, None, 6 192 conv2d_284[0][0]

activation_284 (Activation) (None, None, None, 6 0 batch_normalization_284[0][0]

max_pooling2d_12 (MaxPooling2D) (None, None, None, 6 0 activation_284[0][0]

conv2d_285 (Conv2D) (None, None, None, 8 5120 max_pooling2d_12[0][0]

batch_normalization_285 (BatchN (None, None, None, 8 240 conv2d_285[0][0]

activation_285 (Activation) (None, None, None, 8 0 batch_normalization_285[0][0]

conv2d_286 (Conv2D) (None, None, None, 1 138240 activation_285[0][0]

batch_normalization_286 (BatchN (None, None, None, 1 576 conv2d_286[0][0]

activation_286 (Activation) (None, None, None, 1 0 batch_normalization_286[0][0]

max_pooling2d_13 (MaxPooling2D) (None, None, None, 1 0 activation_286[0][0]

conv2d_290 (Conv2D) (None, None, None, 6 12288 max_pooling2d_13[0][0]

batch_normalization_290 (BatchN (None, None, None, 6 192 conv2d_290[0][0]

activation_290 (Activation) (None, None, None, 6 0 batch_normalization_290[0][0]

conv2d_288 (Conv2D) (None, None, None, 4 9216 max_pooling2d_13[0][0]

conv2d_291 (Conv2D) (None, None, None, 9 55296 activation_290[0][0]

batch_normalization_288 (BatchN (None, None, None, 4 144 conv2d_288[0][0]

batch_normalization_291 (BatchN (None, None, None, 9 288 conv2d_291[0][0]

activation_288 (Activation) (None, None, None, 4 0 batch_normalization_288[0][0]

activation_291 (Activation) (None, None, None, 9 0 batch_normalization_291[0][0]

average_pooling2d_27 (AveragePo (None, None, None, 1 0 max_pooling2d_13[0][0]

conv2d_287 (Conv2D) (None, None, None, 6 12288 max_pooling2d_13[0][0]

conv2d_289 (Conv2D) (None, None, None, 6 76800 activation_288[0][0]

conv2d_292 (Conv2D) (None, None, None, 9 82944 activation_291[0][0]

conv2d_293 (Conv2D) (None, None, None, 3 6144 average_pooling2d_27[0][0]

batch_normalization_287 (BatchN (None, None, None, 6 192 conv2d_287[0][0]

batch_normalization_289 (BatchN (None, None, None, 6 192 conv2d_289[0][0]

batch_normalization_292 (BatchN (None, None, None, 9 288 conv2d_292[0][0]

batch_normalization_293 (BatchN (None, None, None, 3 96 conv2d_293[0][0]

activation_287 (Activation) (None, None, None, 6 0 batch_normalization_287[0][0]

activation_289 (Activation) (None, None, None, 6 0 batch_normalization_289[0][0]

activation_292 (Activation) (None, None, None, 9 0 batch_normalization_292[0][0]

activation_293 (Activation) (None, None, None, 3 0 batch_normalization_293[0][0]

mixed0 (Concatenate) (None, None, None, 2 0 activation_287[0][0]
activation_289[0][0]
activation_292[0][0]
activation_293[0][0]

conv2d_297 (Conv2D) (None, None, None, 6 16384 mixed0[0][0]

batch_normalization_297 (BatchN (None, None, None, 6 192 conv2d_297[0][0]

activation_297 (Activation) (None, None, None, 6 0 batch_normalization_297[0][0]

conv2d_295 (Conv2D)	(None, None, None, 4	12288	mixed0[0][0]
conv2d_298 (Conv2D)	(None, None, None, 9	55296	activation_297[0][0]
batch_normalization_295 (BatchN	(None, None, None, 4	144	conv2d_295[0][0]
batch_normalization_298 (BatchN	(None, None, None, 9	288	conv2d_298[0][0]
activation_295 (Activation)	(None, None, None, 4	0	batch_normalization_295[0][0]
activation_298 (Activation)	(None, None, None, 9	0	batch_normalization_298[0][0]
average_pooling2d_28 (AveragePo	(None, None, None, 2	0	mixed0[0][0]
conv2d_294 (Conv2D)	(None, None, None, 6	16384	mixed0[0][0]
conv2d_296 (Conv2D)	(None, None, None, 6	76800	activation_295[0][0]
conv2d_299 (Conv2D)	(None, None, None, 9	82944	activation_298[0][0]
conv2d_300 (Conv2D)	(None, None, None, 6	16384	average_pooling2d_28[0][0]
batch_normalization_294 (BatchN	(None, None, None, 6	192	conv2d_294[0][0]
batch_normalization_296 (BatchN	(None, None, None, 6	192	conv2d_296[0][0]
batch_normalization_299 (BatchN	(None, None, None, 9	288	conv2d_299[0][0]
batch_normalization_300 (BatchN	(None, None, None, 6	192	conv2d_300[0][0]
activation_294 (Activation)	(None, None, None, 6	0	batch_normalization_294[0][0]
activation_296 (Activation)	(None, None, None, 6	0	batch_normalization_296[0][0]
activation_299 (Activation)	(None, None, None, 9	0	batch_normalization_299[0][0]
activation_300 (Activation)	(None, None, None, 6	0	batch_normalization_300[0][0]
mixed1 (Concatenate)	(None, None, None, 2	0	activation_294[0][0] activation_296[0][0] activation_299[0][0] activation_300[0][0]
conv2d_304 (Conv2D)	(None, None, None, 6	18432	mixed1[0][0]
batch_normalization_304 (BatchN	(None, None, None, 6	192	conv2d_304[0][0]
activation_304 (Activation)	(None, None, None, 6	0	batch_normalization_304[0][0]
conv2d_302 (Conv2D)	(None, None, None, 4	13824	mixed1[0][0]
conv2d_305 (Conv2D)	(None, None, None, 9	55296	activation_304[0][0]
batch_normalization_302 (BatchN	(None, None, None, 4	144	conv2d_302[0][0]
batch_normalization_305 (BatchN	(None, None, None, 9	288	conv2d_305[0][0]
activation_302 (Activation)	(None, None, None, 4	0	batch_normalization_302[0][0]
activation_305 (Activation)	(None, None, None, 9	0	batch_normalization_305[0][0]
average_pooling2d_29 (AveragePo	(None, None, None, 2	0	mixed1[0][0]
conv2d_301 (Conv2D)	(None, None, None, 6	18432	mixed1[0][0]
conv2d_303 (Conv2D)	(None, None, None, 6	76800	activation_302[0][0]
conv2d_306 (Conv2D)	(None, None, None, 9	82944	activation_305[0][0]
conv2d_307 (Conv2D)	(None, None, None, 6	18432	average_pooling2d_29[0][0]
batch_normalization_301 (BatchN	(None, None, None, 6	192	conv2d_301[0][0]
batch_normalization_303 (BatchN	(None, None, None, 6	192	conv2d_303[0][0]
batch_normalization_306 (BatchN	(None, None, None, 9	288	conv2d_306[0][0]
batch_normalization_307 (BatchN	(None, None, None, 6	192	conv2d_307[0][0]
activation_301 (Activation)	(None, None, None, 6	0	batch_normalization_301[0][0]
activation_303 (Activation)	(None, None, None, 6	0	batch_normalization_303[0][0]

activation_306 (Activation) (None, None, None, 9 0 batch_normalization_306[0][0]

activation_307 (Activation) (None, None, None, 6 0 batch_normalization_307[0][0]

mixed2 (Concatenate) (None, None, None, 2 0 activation_301[0][0]
activation_303[0][0]
activation_306[0][0]
activation_307[0][0]

conv2d_309 (Conv2D) (None, None, None, 6 18432 mixed2[0][0]

batch_normalization_309 (BatchN (None, None, None, 6 192 conv2d_309[0][0]

activation_309 (Activation) (None, None, None, 6 0 batch_normalization_309[0][0]

conv2d_310 (Conv2D) (None, None, None, 9 55296 activation_309[0][0]

batch_normalization_310 (BatchN (None, None, None, 9 288 conv2d_310[0][0]

activation_310 (Activation) (None, None, None, 9 0 batch_normalization_310[0][0]

conv2d_308 (Conv2D) (None, None, None, 3 995328 mixed2[0][0]

conv2d_311 (Conv2D) (None, None, None, 9 82944 activation_310[0][0]

batch_normalization_308 (BatchN (None, None, None, 3 1152 conv2d_308[0][0]

batch_normalization_311 (BatchN (None, None, None, 9 288 conv2d_311[0][0]

activation_308 (Activation) (None, None, None, 3 0 batch_normalization_308[0][0]

activation_311 (Activation) (None, None, None, 9 0 batch_normalization_311[0][0]

max_pooling2d_14 (MaxPooling2D) (None, None, None, 2 0 mixed2[0][0]

mixed3 (Concatenate) (None, None, None, 7 0 activation_308[0][0]
activation_311[0][0]
max_pooling2d_14[0][0]

conv2d_316 (Conv2D) (None, None, None, 1 98304 mixed3[0][0]

batch_normalization_316 (BatchN (None, None, None, 1 384 conv2d_316[0][0]

activation_316 (Activation) (None, None, None, 1 0 batch_normalization_316[0][0]

conv2d_317 (Conv2D) (None, None, None, 1 114688 activation_316[0][0]

batch_normalization_317 (BatchN (None, None, None, 1 384 conv2d_317[0][0]

activation_317 (Activation) (None, None, None, 1 0 batch_normalization_317[0][0]

conv2d_313 (Conv2D) (None, None, None, 1 98304 mixed3[0][0]

conv2d_318 (Conv2D) (None, None, None, 1 114688 activation_317[0][0]

batch_normalization_313 (BatchN (None, None, None, 1 384 conv2d_313[0][0]

batch_normalization_318 (BatchN (None, None, None, 1 384 conv2d_318[0][0]

activation_313 (Activation) (None, None, None, 1 0 batch_normalization_313[0][0]

activation_318 (Activation) (None, None, None, 1 0 batch_normalization_318[0][0]

conv2d_314 (Conv2D) (None, None, None, 1 114688 activation_313[0][0]

conv2d_319 (Conv2D) (None, None, None, 1 114688 activation_318[0][0]

batch_normalization_314 (BatchN (None, None, None, 1 384 conv2d_314[0][0]

batch_normalization_319 (BatchN (None, None, None, 1 384 conv2d_319[0][0]

activation_314 (Activation) (None, None, None, 1 0 batch_normalization_314[0][0]

activation_319 (Activation) (None, None, None, 1 0 batch_normalization_319[0][0]

average_pooling2d_30 (AveragePo (None, None, None, 7 0 mixed3[0][0]

conv2d_312 (Conv2D) (None, None, None, 1 147456 mixed3[0][0]

conv2d_315 (Conv2D) (None, None, None, 1 172032 activation_314[0][0]

conv2d_320 (Conv2D) (None, None, None, 1 172032 activation_319[0][0]

conv2d_321 (Conv2D)	(None, None, None, 1	147456	average_pooling2d_30[0][0]
batch_normalization_312 (BatchN	(None, None, None, 1	576	conv2d_312[0][0]
batch_normalization_315 (BatchN	(None, None, None, 1	576	conv2d_315[0][0]
batch_normalization_320 (BatchN	(None, None, None, 1	576	conv2d_320[0][0]
batch_normalization_321 (BatchN	(None, None, None, 1	576	conv2d_321[0][0]
activation_312 (Activation)	(None, None, None, 1	0	batch_normalization_312[0][0]
activation_315 (Activation)	(None, None, None, 1	0	batch_normalization_315[0][0]
activation_320 (Activation)	(None, None, None, 1	0	batch_normalization_320[0][0]
activation_321 (Activation)	(None, None, None, 1	0	batch_normalization_321[0][0]
mixed4 (Concatenate)	(None, None, None, 7	0	activation_312[0][0] activation_315[0][0] activation_320[0][0] activation_321[0][0]
conv2d_326 (Conv2D)	(None, None, None, 1	122880	mixed4[0][0]
batch_normalization_326 (BatchN	(None, None, None, 1	480	conv2d_326[0][0]
activation_326 (Activation)	(None, None, None, 1	0	batch_normalization_326[0][0]
conv2d_327 (Conv2D)	(None, None, None, 1	179200	activation_326[0][0]
batch_normalization_327 (BatchN	(None, None, None, 1	480	conv2d_327[0][0]
activation_327 (Activation)	(None, None, None, 1	0	batch_normalization_327[0][0]
conv2d_323 (Conv2D)	(None, None, None, 1	122880	mixed4[0][0]
conv2d_328 (Conv2D)	(None, None, None, 1	179200	activation_327[0][0]
batch_normalization_323 (BatchN	(None, None, None, 1	480	conv2d_323[0][0]
batch_normalization_328 (BatchN	(None, None, None, 1	480	conv2d_328[0][0]
activation_323 (Activation)	(None, None, None, 1	0	batch_normalization_323[0][0]
activation_328 (Activation)	(None, None, None, 1	0	batch_normalization_328[0][0]
conv2d_324 (Conv2D)	(None, None, None, 1	179200	activation_323[0][0]
conv2d_329 (Conv2D)	(None, None, None, 1	179200	activation_328[0][0]
batch_normalization_324 (BatchN	(None, None, None, 1	480	conv2d_324[0][0]
batch_normalization_329 (BatchN	(None, None, None, 1	480	conv2d_329[0][0]
activation_324 (Activation)	(None, None, None, 1	0	batch_normalization_324[0][0]
activation_329 (Activation)	(None, None, None, 1	0	batch_normalization_329[0][0]
average_pooling2d_31 (AveragePo	(None, None, None, 7	0	mixed4[0][0]
conv2d_322 (Conv2D)	(None, None, None, 1	147456	mixed4[0][0]
conv2d_325 (Conv2D)	(None, None, None, 1	215040	activation_324[0][0]
conv2d_330 (Conv2D)	(None, None, None, 1	215040	activation_329[0][0]
conv2d_331 (Conv2D)	(None, None, None, 1	147456	average_pooling2d_31[0][0]
batch_normalization_322 (BatchN	(None, None, None, 1	576	conv2d_322[0][0]
batch_normalization_325 (BatchN	(None, None, None, 1	576	conv2d_325[0][0]
batch_normalization_330 (BatchN	(None, None, None, 1	576	conv2d_330[0][0]
batch_normalization_331 (BatchN	(None, None, None, 1	576	conv2d_331[0][0]
activation_322 (Activation)	(None, None, None, 1	0	batch_normalization_322[0][0]
activation_325 (Activation)	(None, None, None, 1	0	batch_normalization_325[0][0]
activation_330 (Activation)	(None, None, None, 1	0	batch_normalization_330[0][0]

activation_331 (Activation)	(None, None, None, 1	0	batch_normalization_331[0][0]
mixed5 (Concatenate)	(None, None, None, 7	0	activation_322[0][0] activation_325[0][0] activation_330[0][0] activation_331[0][0]
conv2d_336 (Conv2D)	(None, None, None, 1	122880	mixed5[0][0]
batch_normalization_336 (BatchN	(None, None, None, 1	480	conv2d_336[0][0]
activation_336 (Activation)	(None, None, None, 1	0	batch_normalization_336[0][0]
conv2d_337 (Conv2D)	(None, None, None, 1	179200	activation_336[0][0]
batch_normalization_337 (BatchN	(None, None, None, 1	480	conv2d_337[0][0]
activation_337 (Activation)	(None, None, None, 1	0	batch_normalization_337[0][0]
conv2d_333 (Conv2D)	(None, None, None, 1	122880	mixed5[0][0]
conv2d_338 (Conv2D)	(None, None, None, 1	179200	activation_337[0][0]
batch_normalization_333 (BatchN	(None, None, None, 1	480	conv2d_333[0][0]
batch_normalization_338 (BatchN	(None, None, None, 1	480	conv2d_338[0][0]
activation_333 (Activation)	(None, None, None, 1	0	batch_normalization_333[0][0]
activation_338 (Activation)	(None, None, None, 1	0	batch_normalization_338[0][0]
conv2d_334 (Conv2D)	(None, None, None, 1	179200	activation_333[0][0]
conv2d_339 (Conv2D)	(None, None, None, 1	179200	activation_338[0][0]
batch_normalization_334 (BatchN	(None, None, None, 1	480	conv2d_334[0][0]
batch_normalization_339 (BatchN	(None, None, None, 1	480	conv2d_339[0][0]
activation_334 (Activation)	(None, None, None, 1	0	batch_normalization_334[0][0]
activation_339 (Activation)	(None, None, None, 1	0	batch_normalization_339[0][0]
average_pooling2d_32 (AveragePo	(None, None, None, 7	0	mixed5[0][0]
conv2d_332 (Conv2D)	(None, None, None, 1	147456	mixed5[0][0]
conv2d_335 (Conv2D)	(None, None, None, 1	215040	activation_334[0][0]
conv2d_340 (Conv2D)	(None, None, None, 1	215040	activation_339[0][0]
conv2d_341 (Conv2D)	(None, None, None, 1	147456	average_pooling2d_32[0][0]
batch_normalization_332 (BatchN	(None, None, None, 1	576	conv2d_332[0][0]
batch_normalization_335 (BatchN	(None, None, None, 1	576	conv2d_335[0][0]
batch_normalization_340 (BatchN	(None, None, None, 1	576	conv2d_340[0][0]
batch_normalization_341 (BatchN	(None, None, None, 1	576	conv2d_341[0][0]
activation_332 (Activation)	(None, None, None, 1	0	batch_normalization_332[0][0]
activation_335 (Activation)	(None, None, None, 1	0	batch_normalization_335[0][0]
activation_340 (Activation)	(None, None, None, 1	0	batch_normalization_340[0][0]
activation_341 (Activation)	(None, None, None, 1	0	batch_normalization_341[0][0]
mixed6 (Concatenate)	(None, None, None, 7	0	activation_332[0][0] activation_335[0][0] activation_340[0][0] activation_341[0][0]
conv2d_346 (Conv2D)	(None, None, None, 1	147456	mixed6[0][0]
batch_normalization_346 (BatchN	(None, None, None, 1	576	conv2d_346[0][0]
activation_346 (Activation)	(None, None, None, 1	0	batch_normalization_346[0][0]
conv2d_347 (Conv2D)	(None, None, None, 1	258048	activation_346[0][0]

batch_normalization_347 (BatchN (None, None, None, 1 576 conv2d_347[0][0]

activation_347 (Activation) (None, None, None, 1 0 batch_normalization_347[0][0]

conv2d_343 (Conv2D) (None, None, None, 1 147456 mixed6[0][0]

conv2d_348 (Conv2D) (None, None, None, 1 258048 activation_347[0][0]

batch_normalization_343 (BatchN (None, None, None, 1 576 conv2d_343[0][0]

batch_normalization_348 (BatchN (None, None, None, 1 576 conv2d_348[0][0]

activation_343 (Activation) (None, None, None, 1 0 batch_normalization_343[0][0]

activation_348 (Activation) (None, None, None, 1 0 batch_normalization_348[0][0]

conv2d_344 (Conv2D) (None, None, None, 1 258048 activation_343[0][0]

conv2d_349 (Conv2D) (None, None, None, 1 258048 activation_348[0][0]

batch_normalization_344 (BatchN (None, None, None, 1 576 conv2d_344[0][0]

batch_normalization_349 (BatchN (None, None, None, 1 576 conv2d_349[0][0]

activation_344 (Activation) (None, None, None, 1 0 batch_normalization_344[0][0]

activation_349 (Activation) (None, None, None, 1 0 batch_normalization_349[0][0]

average_pooling2d_33 (AveragePo (None, None, None, 7 0 mixed6[0][0]

conv2d_342 (Conv2D) (None, None, None, 1 147456 mixed6[0][0]

conv2d_345 (Conv2D) (None, None, None, 1 258048 activation_344[0][0]

conv2d_350 (Conv2D) (None, None, None, 1 258048 activation_349[0][0]

conv2d_351 (Conv2D) (None, None, None, 1 147456 average_pooling2d_33[0][0]

batch_normalization_342 (BatchN (None, None, None, 1 576 conv2d_342[0][0]

batch_normalization_345 (BatchN (None, None, None, 1 576 conv2d_345[0][0]

batch_normalization_350 (BatchN (None, None, None, 1 576 conv2d_350[0][0]

batch_normalization_351 (BatchN (None, None, None, 1 576 conv2d_351[0][0]

activation_342 (Activation) (None, None, None, 1 0 batch_normalization_342[0][0]

activation_345 (Activation) (None, None, None, 1 0 batch_normalization_345[0][0]

activation_350 (Activation) (None, None, None, 1 0 batch_normalization_350[0][0]

activation_351 (Activation) (None, None, None, 1 0 batch_normalization_351[0][0]

mixed7 (Concatenate) (None, None, None, 7 0 activation_342[0][0]
activation_345[0][0]
activation_350[0][0]
activation_351[0][0]

conv2d_354 (Conv2D) (None, None, None, 1 147456 mixed7[0][0]

batch_normalization_354 (BatchN (None, None, None, 1 576 conv2d_354[0][0]

activation_354 (Activation) (None, None, None, 1 0 batch_normalization_354[0][0]

conv2d_355 (Conv2D) (None, None, None, 1 258048 activation_354[0][0]

batch_normalization_355 (BatchN (None, None, None, 1 576 conv2d_355[0][0]

activation_355 (Activation) (None, None, None, 1 0 batch_normalization_355[0][0]

conv2d_352 (Conv2D) (None, None, None, 1 147456 mixed7[0][0]

conv2d_356 (Conv2D) (None, None, None, 1 258048 activation_355[0][0]

batch_normalization_352 (BatchN (None, None, None, 1 576 conv2d_352[0][0]

batch_normalization_356 (BatchN (None, None, None, 1 576 conv2d_356[0][0]

activation_352 (Activation) (None, None, None, 1 0 batch_normalization_352[0][0]

activation_356 (Activation) (None, None, None, 1 0 batch_normalization_356[0][0]

conv2d_353 (Conv2D)	(None, None, None, 3	552960	activation_352[0][0]
conv2d_357 (Conv2D)	(None, None, None, 1	331776	activation_356[0][0]
batch_normalization_353 (BatchN	(None, None, None, 3	960	conv2d_353[0][0]
batch_normalization_357 (BatchN	(None, None, None, 1	576	conv2d_357[0][0]
activation_353 (Activation)	(None, None, None, 3	0	batch_normalization_353[0][0]
activation_357 (Activation)	(None, None, None, 1	0	batch_normalization_357[0][0]
max_pooling2d_15 (MaxPooling2D)	(None, None, None, 7	0	mixed7[0][0]
mixed8 (Concatenate)	(None, None, None, 1	0	activation_353[0][0] activation_357[0][0] max_pooling2d_15[0][0]
conv2d_362 (Conv2D)	(None, None, None, 4	573440	mixed8[0][0]
batch_normalization_362 (BatchN	(None, None, None, 4	1344	conv2d_362[0][0]
activation_362 (Activation)	(None, None, None, 4	0	batch_normalization_362[0][0]
conv2d_359 (Conv2D)	(None, None, None, 3	491520	mixed8[0][0]
conv2d_363 (Conv2D)	(None, None, None, 3	1548288	activation_362[0][0]
batch_normalization_359 (BatchN	(None, None, None, 3	1152	conv2d_359[0][0]
batch_normalization_363 (BatchN	(None, None, None, 3	1152	conv2d_363[0][0]
activation_359 (Activation)	(None, None, None, 3	0	batch_normalization_359[0][0]
activation_363 (Activation)	(None, None, None, 3	0	batch_normalization_363[0][0]
conv2d_360 (Conv2D)	(None, None, None, 3	442368	activation_359[0][0]
conv2d_361 (Conv2D)	(None, None, None, 3	442368	activation_359[0][0]
conv2d_364 (Conv2D)	(None, None, None, 3	442368	activation_363[0][0]
conv2d_365 (Conv2D)	(None, None, None, 3	442368	activation_363[0][0]
average_pooling2d_34 (AveragePo	(None, None, None, 1	0	mixed8[0][0]
conv2d_358 (Conv2D)	(None, None, None, 3	409600	mixed8[0][0]
batch_normalization_360 (BatchN	(None, None, None, 3	1152	conv2d_360[0][0]
batch_normalization_361 (BatchN	(None, None, None, 3	1152	conv2d_361[0][0]
batch_normalization_364 (BatchN	(None, None, None, 3	1152	conv2d_364[0][0]
batch_normalization_365 (BatchN	(None, None, None, 3	1152	conv2d_365[0][0]
conv2d_366 (Conv2D)	(None, None, None, 1	245760	average_pooling2d_34[0][0]
batch_normalization_358 (BatchN	(None, None, None, 3	960	conv2d_358[0][0]
activation_360 (Activation)	(None, None, None, 3	0	batch_normalization_360[0][0]
activation_361 (Activation)	(None, None, None, 3	0	batch_normalization_361[0][0]
activation_364 (Activation)	(None, None, None, 3	0	batch_normalization_364[0][0]
activation_365 (Activation)	(None, None, None, 3	0	batch_normalization_365[0][0]
batch_normalization_366 (BatchN	(None, None, None, 1	576	conv2d_366[0][0]
activation_358 (Activation)	(None, None, None, 3	0	batch_normalization_358[0][0]
mixed9_0 (Concatenate)	(None, None, None, 7	0	activation_360[0][0] activation_361[0][0]
concatenate_6 (Concatenate)	(None, None, None, 7	0	activation_364[0][0] activation_365[0][0]
activation_366 (Activation)	(None, None, None, 1	0	batch_normalization_366[0][0]
mixed9 (Concatenate)	(None, None, None, 2	0	activation_358[0][0]

			mixed9_0[0][0] concatenate_6[0][0] activation_366[0][0]
conv2d_371 (Conv2D)	(None, None, None, 4	917504	mixed9[0][0]
batch_normalization_371 (BatchN	(None, None, None, 4	1344	conv2d_371[0][0]
activation_371 (Activation)	(None, None, None, 4	0	batch_normalization_371[0][0]
conv2d_368 (Conv2D)	(None, None, None, 3	786432	mixed9[0][0]
conv2d_372 (Conv2D)	(None, None, None, 3	1548288	activation_371[0][0]
batch_normalization_368 (BatchN	(None, None, None, 3	1152	conv2d_368[0][0]
batch_normalization_372 (BatchN	(None, None, None, 3	1152	conv2d_372[0][0]
activation_368 (Activation)	(None, None, None, 3	0	batch_normalization_368[0][0]
activation_372 (Activation)	(None, None, None, 3	0	batch_normalization_372[0][0]
conv2d_369 (Conv2D)	(None, None, None, 3	442368	activation_368[0][0]
conv2d_370 (Conv2D)	(None, None, None, 3	442368	activation_368[0][0]
conv2d_373 (Conv2D)	(None, None, None, 3	442368	activation_372[0][0]
conv2d_374 (Conv2D)	(None, None, None, 3	442368	activation_372[0][0]
average_pooling2d_35 (AveragePo	(None, None, None, 2	0	mixed9[0][0]
conv2d_367 (Conv2D)	(None, None, None, 3	655360	mixed9[0][0]
batch_normalization_369 (BatchN	(None, None, None, 3	1152	conv2d_369[0][0]
batch_normalization_370 (BatchN	(None, None, None, 3	1152	conv2d_370[0][0]
batch_normalization_373 (BatchN	(None, None, None, 3	1152	conv2d_373[0][0]
batch_normalization_374 (BatchN	(None, None, None, 3	1152	conv2d_374[0][0]
conv2d_375 (Conv2D)	(None, None, None, 1	393216	average_pooling2d_35[0][0]
batch_normalization_367 (BatchN	(None, None, None, 3	960	conv2d_367[0][0]
activation_369 (Activation)	(None, None, None, 3	0	batch_normalization_369[0][0]
activation_370 (Activation)	(None, None, None, 3	0	batch_normalization_370[0][0]
activation_373 (Activation)	(None, None, None, 3	0	batch_normalization_373[0][0]
activation_374 (Activation)	(None, None, None, 3	0	batch_normalization_374[0][0]
batch_normalization_375 (BatchN	(None, None, None, 1	576	conv2d_375[0][0]
activation_367 (Activation)	(None, None, None, 3	0	batch_normalization_367[0][0]
mixed9_1 (Concatenate)	(None, None, None, 7	0	activation_369[0][0] activation_370[0][0]
concatenate_7 (Concatenate)	(None, None, None, 7	0	activation_373[0][0] activation_374[0][0]
activation_375 (Activation)	(None, None, None, 1	0	batch_normalization_375[0][0]
mixed10 (Concatenate)	(None, None, None, 2	0	activation_367[0][0] mixed9_1[0][0] concatenate_7[0][0] activation_375[0][0]
dropout_6 (Dropout)	(None, None, None, 2	0	mixed10[0][0]
global_max_pooling2d_3 (GlobalM	(None, 2048)	0	dropout_6[0][0]
dense_10 (Dense)	(None, 128)	262272	global_max_pooling2d_3[0][0]
dense_11 (Dense)	(None, 2)	258	dense_10[0][0]

==========

Total params: 22,065,314
Trainable params: 22,030,882
Non-trainable params: 34,432

None

In [208]:

```
batch_size = 32
epochs = 500
Learning_rate = 0.001
Dropout = 0.5
```

In [209]:

```
history = model.fit(x= X_train, y = y_train, validation_data = (X_test , y_test) ,callbacks=[lr_reduce,checkpoint] ,epochs = epochs,batch_size = batch_size)
# fit(self, x, y, batch_size, nb_epoch, verbose, callbacks, validation_split, validation_data, shuffle, class_weight, sample_weight, initial_epoch
#history = model.fit(X_train, y_train,  (X_test , y_test) ,[lr_reduce,checkpoint] , epochs)
```

```
Epoch 1/500
11/11 [==============================] - 55s 5s/step - loss: 1.0579 - accuracy: 0.7511 - val_loss: 95.1021 - val_accuracy: 0.4683
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 2/500
11/11 [==============================] - 48s 5s/step - loss: 0.0936 - accuracy: 0.9720 - val_loss: 255.7841 - val_accuracy: 0.4683
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 3/500
11/11 [==============================] - 48s 5s/step - loss: 0.2032 - accuracy: 0.9050 - val_loss: 156.4262 - val_accuracy: 0.4683
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 4/500
11/11 [==============================] - 48s 5s/step - loss: 0.1036 - accuracy: 0.9647 - val_loss: 76.5948 - val_accuracy: 0.4871
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 5/500
11/11 [==============================] - 48s 5s/step - loss: 0.0450 - accuracy: 0.9895 - val_loss: 7.9695 - val_accuracy: 0.8216
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 6/500
11/11 [==============================] - 48s 5s/step - loss: 0.0189 - accuracy: 0.9955 - val_loss: 2.9867 - val_accuracy: 0.7856
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 7/500
11/11 [==============================] - 48s 5s/step - loss: 0.0271 - accuracy: 0.9916 - val_loss: 5.8515 - val_accuracy: 0.7460
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 8/500
11/11 [==============================] - 48s 5s/step - loss: 0.0210 - accuracy: 0.9912 - val_loss: 1.6642 - val_accuracy: 0.8813
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 9/500
11/11 [==============================] - 48s 5s/step - loss: 0.0057 - accuracy: 1.0000 - val_loss: 0.6759 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 10/500
11/11 [==============================] - 48s 5s/step - loss: 0.0108 - accuracy: 0.9916 - val_loss: 0.8009 - val_accuracy: 0.9137
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 11/500
11/11 [==============================] - 48s 5s/step - loss: 0.0046 - accuracy: 1.0000 - val_loss: 0.7008 - val_accuracy: 0.9281
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 12/500
11/11 [==============================] - 48s 5s/step - loss: 0.0036 - accuracy: 0.9995 - val_loss: 1.2188 - val_accuracy: 0.8511
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 13/500
11/11 [==============================] - 48s 5s/step - loss: 0.0263 - accuracy: 0.9946 - val_loss: 1.7054 - val_accuracy: 0.8446
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 14/500
11/11 [==============================] - 48s 5s/step - loss: 0.0074 - accuracy: 0.9971 - val_loss: 1.0449 - val_accuracy: 0.8885
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
```

racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 15/500
11/11 [==============================] - 48s 5s/step - loss: 0.0047 - accuracy: 0.9978 - val_loss: 0.7831 - val_accuracy: 0.9230
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 16/500
11/11 [==============================] - 48s 5s/step - loss: 0.0021 - accuracy: 1.0000 - val_loss: 0.6913 - val_accuracy: 0.9252
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 17/500
11/11 [==============================] - 48s 5s/step - loss: 0.0013 - accuracy: 1.0000 - val_loss: 0.6853 - val_accuracy: 0.9079
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 18/500
11/11 [==============================] - 48s 5s/step - loss: 3.2637e-04 - accuracy: 1.0000 - val_loss: 0.6965 - val_accuracy: 0.8835
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 19/500
11/11 [==============================] - 48s 5s/step - loss: 2.9441e-04 - accuracy: 1.0000 - val_loss: 0.6680 - val_accuracy: 0.8791
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 20/500
11/11 [==============================] - 48s 5s/step - loss: 8.9624e-05 - accuracy: 1.0000 - val_loss: 0.6223 - val_accuracy: 0.8791
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 21/500
11/11 [==============================] - 48s 5s/step - loss: 0.0015 - accuracy: 0.9986 - val_loss: 1.7461 - val_accuracy: 0.6403
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 22/500
11/11 [==============================] - 48s 5s/step - loss: 0.0409 - accuracy: 0.9881 - val_loss: 0.5945 - val_accuracy: 0.8827
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 23/500
11/11 [==============================] - 48s 5s/step - loss: 0.0118 - accuracy: 0.9985 - val_loss: 0.5892 - val_accuracy: 0.8655
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 24/500
11/11 [==============================] - 48s 5s/step - loss: 0.0068 - accuracy: 0.9958 - val_loss: 0.5469 - val_accuracy: 0.8784
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 25/500
11/11 [==============================] - 48s 5s/step - loss: 1.3976e-04 - accuracy: 1.0000 - val_loss: 0.5739 - val_accuracy: 0.8504
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 26/500
11/11 [==============================] - 48s 5s/step - loss: 8.6601e-04 - accuracy: 1.0000 - val_loss: 0.4831 - val_accuracy: 0.8871
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 27/500
11/11 [==============================] - 48s 5s/step - loss: 1.4136e-04 - accuracy: 1.0000 - val_loss: 0.4544 - val_accuracy: 0.8993
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 28/500
11/11 [==============================] - 48s 5s/step - loss: 4.0755e-04 - accuracy: 1.0000 - val_loss: 0.4576 - val_accuracy: 0.9014
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 29/500
11/11 [==============================] - 48s 5s/step - loss: 4.8093e-05 - accuracy: 1.0000 - val_loss: 0.4766 - val_accuracy: 0.8993
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 30/500
11/11 [==============================] - 48s 5s/step - loss: 3.5302e-04 - accuracy: 1.0000 - val_loss: 0.5030 - val_accuracy: 0.9058
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 31/500

11/11 [==============================] - 48s 5s/step - loss: 5.5986e-05 - accuracy: 1.0000 - val_loss: 0.5242 - val_accuracy: 0.9050
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 32/500
11/11 [==============================] - 48s 5s/step - loss: 2.1482e-04 - accuracy: 1.0000 - val_loss: 0.5403 - val_accuracy: 0.9007
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 33/500
11/11 [==============================] - 48s 5s/step - loss: 1.4033e-04 - accuracy: 1.0000 - val_loss: 0.5480 - val_accuracy: 0.8978
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 34/500
11/11 [==============================] - 48s 5s/step - loss: 7.5875e-05 - accuracy: 1.0000 - val_loss: 0.5496 - val_accuracy: 0.8978
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 35/500
11/11 [==============================] - 48s 5s/step - loss: 6.6205e-04 - accuracy: 1.0000 - val_loss: 0.8642 - val_accuracy: 0.8086
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 36/500
11/11 [==============================] - 48s 5s/step - loss: 0.0077 - accuracy: 0.9940 - val_loss: 0.4748 - val_accuracy: 0.9101
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 37/500
11/11 [==============================] - 48s 5s/step - loss: 0.0536 - accuracy: 0.9843 - val_loss: 1.3751 - val_accuracy: 0.8964
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 38/500
11/11 [==============================] - 48s 5s/step - loss: 0.1103 - accuracy: 0.9584 - val_loss: 2.4170 - val_accuracy: 0.8237
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 39/500
11/11 [==============================] - 48s 5s/step - loss: 0.0204 - accuracy: 0.9953 - val_loss: 12.6607 - val_accuracy: 0.6691
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 40/500
11/11 [==============================] - 48s 5s/step - loss: 0.0149 - accuracy: 0.9909 - val_loss: 5.3372 - val_accuracy: 0.7691
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 41/500
11/11 [==============================] - 48s 5s/step - loss: 0.0322 - accuracy: 0.9901 - val_loss: 1.7137 - val_accuracy: 0.8331
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 42/500
11/11 [==============================] - 48s 5s/step - loss: 0.0189 - accuracy: 0.9972 - val_loss: 0.8164 - val_accuracy: 0.8741
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 43/500
11/11 [==============================] - 48s 5s/step - loss: 0.0508 - accuracy: 0.9895 - val_loss: 0.5198 - val_accuracy: 0.8626
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 44/500
11/11 [==============================] - 48s 5s/step - loss: 0.0055 - accuracy: 1.0000 - val_loss: 0.4007 - val_accuracy: 0.8856
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 45/500
11/11 [==============================] - 48s 5s/step - loss: 0.0039 - accuracy: 0.9982 - val_loss: 0.3686 - val_accuracy: 0.9029
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 46/500
11/11 [==============================] - 48s 5s/step - loss: 0.0541 - accuracy: 0.9811 - val_loss: 1.1499 - val_accuracy: 0.5784
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 47/500
11/11 [==============================] - 48s 5s/step - loss: 0.0472 - accuracy: 0.9846 - val_loss: 2.1071 - val_accuracy: 0.2964
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr

racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 48/500
11/11 [==============================] - 48s 5s/step - loss: 0.0237 - accuracy: 0.9909 - val_loss: 1.0304 - val_accuracy: 0.4892
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 49/500
11/11 [==============================] - 48s 5s/step - loss: 0.0812 - accuracy: 0.9764 - val_loss: 18.7511 - val_accuracy: 0.6165
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 50/500
11/11 [==============================] - 48s 5s/step - loss: 0.2097 - accuracy: 0.9403 - val_loss: 1453309.0000 - val_accuracy: 0.4683
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 51/500
11/11 [==============================] - 48s 5s/step - loss: 0.1560 - accuracy: 0.9563 - val_loss: 856863.0625 - val_accuracy: 0.4683
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 52/500
11/11 [==============================] - 48s 5s/step - loss: 0.1731 - accuracy: 0.9376 - val_loss: 187061.2344 - val_accuracy: 0.4683
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 53/500
11/11 [==============================] - 48s 5s/step - loss: 0.0368 - accuracy: 0.9881 - val_loss: 21921.3535 - val_accuracy: 0.4683
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 54/500
11/11 [==============================] - 48s 5s/step - loss: 0.1628 - accuracy: 0.9878 - val_loss: 241.7102 - val_accuracy: 0.4683
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 55/500
11/11 [==============================] - 48s 5s/step - loss: 0.0945 - accuracy: 0.9632 - val_loss: 918.1489 - val_accuracy: 0.4683
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 56/500
11/11 [==============================] - 48s 5s/step - loss: 0.0568 - accuracy: 0.9766 - val_loss: 7762.4746 - val_accuracy: 0.4683
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 57/500
11/11 [==============================] - 48s 5s/step - loss: 0.2084 - accuracy: 0.9457 - val_loss: 129888.1641 - val_accuracy: 0.4683
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 58/500
11/11 [==============================] - 48s 5s/step - loss: 0.0450 - accuracy: 0.9844 - val_loss: 191603.7031 - val_accuracy: 0.4683
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 59/500
11/11 [==============================] - 48s 5s/step - loss: 0.0724 - accuracy: 0.9709 - val_loss: 19886.5977 - val_accuracy: 0.4619
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 60/500
11/11 [==============================] - 48s 5s/step - loss: 0.0174 - accuracy: 0.9953 - val_loss: 3824.3306 - val_accuracy: 0.4266
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 61/500
11/11 [==============================] - 48s 5s/step - loss: 0.0376 - accuracy: 0.9930 - val_loss: 13.7492 - val_accuracy: 0.7921
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 62/500
11/11 [==============================] - 48s 5s/step - loss: 0.0671 - accuracy: 0.9774 - val_loss: 34.2700 - val_accuracy: 0.4309
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 63/500
11/11 [==============================] - 48s 5s/step - loss: 0.0432 - accuracy: 0.9845 - val_loss: 1.4553 - val_accuracy: 0.4849
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 64/500

11/11 [==============================] - 48s 5s/step - loss: 0.0138 - accuracy: 1.0000 - val_loss: 0.9939 - val_accuracy: 0.4036
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 65/500
11/11 [==============================] - 48s 5s/step - loss: 0.0032 - accuracy: 0.9983 - val_loss: 1.6535 - val_accuracy: 0.5734
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 66/500
11/11 [==============================] - 48s 5s/step - loss: 0.0040 - accuracy: 1.0000 - val_loss: 1.6252 - val_accuracy: 0.6216
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 67/500
11/11 [==============================] - 48s 5s/step - loss: 0.0033 - accuracy: 1.0000 - val_loss: 0.4257 - val_accuracy: 0.8683
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 68/500
11/11 [==============================] - 48s 5s/step - loss: 0.0024 - accuracy: 1.0000 - val_loss: 1.6152 - val_accuracy: 0.7360
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 69/500
11/11 [==============================] - 48s 5s/step - loss: 0.0011 - accuracy: 1.0000 - val_loss: 2.3153 - val_accuracy: 0.7281
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 70/500
11/11 [==============================] - 48s 5s/step - loss: 0.0021 - accuracy: 1.0000 - val_loss: 1.2965 - val_accuracy: 0.7727
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 71/500
11/11 [==============================] - 48s 5s/step - loss: 0.0014 - accuracy: 1.0000 - val_loss: 0.6464 - val_accuracy: 0.8504
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 72/500
11/11 [==============================] - 48s 5s/step - loss: 0.0012 - accuracy: 1.0000 - val_loss: 0.5128 - val_accuracy: 0.8827
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 73/500
11/11 [==============================] - 48s 5s/step - loss: 3.3825e-04 - accuracy: 1.0000 - val_loss: 0.5610 - val_accuracy: 0.8770
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 74/500
11/11 [==============================] - 48s 5s/step - loss: 1.6532e-04 - accuracy: 1.0000 - val_loss: 0.5199 - val_accuracy: 0.8935
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 75/500
11/11 [==============================] - 48s 5s/step - loss: 7.1733e-05 - accuracy: 1.0000 - val_loss: 0.4670 - val_accuracy: 0.9036
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 76/500
11/11 [==============================] - 48s 5s/step - loss: 5.9596e-05 - accuracy: 1.0000 - val_loss: 0.4280 - val_accuracy: 0.9129
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 77/500
11/11 [==============================] - 48s 5s/step - loss: 6.0485e-05 - accuracy: 1.0000 - val_loss: 0.4031 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 78/500
11/11 [==============================] - 48s 5s/step - loss: 3.7497e-05 - accuracy: 1.0000 - val_loss: 0.3850 - val_accuracy: 0.9173
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 79/500
11/11 [==============================] - 48s 5s/step - loss: 5.6738e-05 - accuracy: 1.0000 - val_loss: 0.3713 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 80/500
11/11 [==============================] - 48s 5s/step - loss: 7.5099e-05 - accuracy: 1.0000 - val_loss: 0.3631 - val_accuracy: 0.9230
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr

WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 81/500
11/11 [==============================] - 48s 5s/step - loss: 2.5018e-05 - accuracy: 1.0000 - val_loss: 0.3590 - val_accuracy: 0.9273
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 82/500
11/11 [==============================] - 48s 5s/step - loss: 7.1659e-05 - accuracy: 1.0000 - val_loss: 0.3533 - val_accuracy: 0.9273
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 83/500
11/11 [==============================] - 48s 5s/step - loss: 4.8927e-05 - accuracy: 1.0000 - val_loss: 0.3518 - val_accuracy: 0.9281
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 84/500
11/11 [==============================] - 48s 5s/step - loss: 4.9735e-05 - accuracy: 1.0000 - val_loss: 0.3523 - val_accuracy: 0.9266
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 85/500
11/11 [==============================] - 48s 5s/step - loss: 4.0568e-05 - accuracy: 1.0000 - val_loss: 0.3542 - val_accuracy: 0.9266
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 86/500
11/11 [==============================] - 48s 5s/step - loss: 4.8366e-05 - accuracy: 1.0000 - val_loss: 0.3573 - val_accuracy: 0.9281
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 87/500
11/11 [==============================] - 48s 5s/step - loss: 1.4590e-05 - accuracy: 1.0000 - val_loss: 0.3619 - val_accuracy: 0.9266
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 88/500
11/11 [==============================] - 48s 5s/step - loss: 4.8317e-05 - accuracy: 1.0000 - val_loss: 0.3666 - val_accuracy: 0.9237
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 89/500
11/11 [==============================] - 48s 5s/step - loss: 2.2003e-05 - accuracy: 1.0000 - val_loss: 0.3718 - val_accuracy: 0.9237
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 90/500
11/11 [==============================] - 48s 5s/step - loss: 0.0018 - accuracy: 0.9995 - val_loss: 0.3939 - val_accuracy: 0.9245
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 91/500
11/11 [==============================] - 48s 5s/step - loss: 0.0252 - accuracy: 0.9932 - val_loss: 0.7773 - val_accuracy: 0.8072
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 92/500
11/11 [==============================] - 48s 5s/step - loss: 0.1019 - accuracy: 0.9562 - val_loss: 272.8598 - val_accuracy: 0.8604
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 93/500
11/11 [==============================] - 48s 5s/step - loss: 0.0667 - accuracy: 0.9724 - val_loss: 49.0214 - val_accuracy: 0.9129
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 94/500
11/11 [==============================] - 48s 5s/step - loss: 0.0449 - accuracy: 0.9783 - val_loss: 122.3053 - val_accuracy: 0.9065
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 95/500
11/11 [==============================] - 48s 5s/step - loss: 0.0068 - accuracy: 1.0000 - val_loss: 31.0153 - val_accuracy: 0.9058
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 96/500
11/11 [==============================] - 48s 5s/step - loss: 0.0025 - accuracy: 1.0000 - val_loss: 5.2532 - val_accuracy: 0.9022
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 97/500

11/11 [==============================] - 48s 5s/step - loss: 8.8712e-04 - accuracy: 1.0000 - val_loss: 1.9859 - val_accuracy: 0.9050
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 98/500
11/11 [==============================] - 48s 5s/step - loss: 2.6447e-04 - accuracy: 1.0000 - val_loss: 1.0738 - val_accuracy: 0.9065
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 99/500
11/11 [==============================] - 48s 5s/step - loss: 0.0065 - accuracy: 0.9958 - val_loss: 0.9938 - val_accuracy: 0.9223
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 100/500
11/11 [==============================] - 48s 5s/step - loss: 0.0011 - accuracy: 1.0000 - val_loss: 0.5472 - val_accuracy: 0.9144
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 101/500
11/11 [==============================] - 48s 5s/step - loss: 0.0015 - accuracy: 1.0000 - val_loss: 0.4059 - val_accuracy: 0.9252
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 102/500
11/11 [==============================] - 48s 5s/step - loss: 3.7761e-04 - accuracy: 1.0000 - val_loss: 0.4092 - val_accuracy: 0.9266
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 103/500
11/11 [==============================] - 48s 5s/step - loss: 2.9509e-04 - accuracy: 1.0000 - val_loss: 0.4048 - val_accuracy: 0.9259
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 104/500
11/11 [==============================] - 48s 5s/step - loss: 1.2068e-04 - accuracy: 1.0000 - val_loss: 0.3992 - val_accuracy: 0.9259
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 105/500
11/11 [==============================] - 48s 5s/step - loss: 6.3551e-05 - accuracy: 1.0000 - val_loss: 0.3950 - val_accuracy: 0.9252
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 106/500
11/11 [==============================] - 48s 5s/step - loss: 3.7794e-05 - accuracy: 1.0000 - val_loss: 0.3916 - val_accuracy: 0.9245
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 107/500
11/11 [==============================] - 48s 5s/step - loss: 2.3158e-04 - accuracy: 1.0000 - val_loss: 0.3873 - val_accuracy: 0.9245
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 108/500
11/11 [==============================] - 48s 5s/step - loss: 2.1059e-04 - accuracy: 1.0000 - val_loss: 0.3842 - val_accuracy: 0.9245
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 109/500
11/11 [==============================] - 48s 5s/step - loss: 8.0076e-05 - accuracy: 1.0000 - val_loss: 0.3831 - val_accuracy: 0.9237
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 110/500
11/11 [==============================] - 48s 5s/step - loss: 7.9297e-05 - accuracy: 1.0000 - val_loss: 0.3822 - val_accuracy: 0.9237
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 111/500
11/11 [==============================] - 48s 5s/step - loss: 6.7692e-05 - accuracy: 1.0000 - val_loss: 0.3829 - val_accuracy: 0.9237
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 112/500
11/11 [==============================] - 48s 5s/step - loss: 3.1489e-04 - accuracy: 1.0000 - val_loss: 0.3853 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 113/500
11/11 [==============================] - 48s 5s/step - loss: 5.2731e-05 - accuracy: 1.0000 - val_loss: 0.3879 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr

WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 114/500
11/11 [==============================] - 48s 5s/step - loss: 3.5439e-05 - accuracy: 1.0000 - val_loss: 0.3899 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 115/500
11/11 [==============================] - 48s 5s/step - loss: 3.2459e-05 - accuracy: 1.0000 - val_loss: 0.3909 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 116/500
11/11 [==============================] - 48s 5s/step - loss: 4.0738e-05 - accuracy: 1.0000 - val_loss: 0.3917 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 117/500
11/11 [==============================] - 48s 5s/step - loss: 6.5871e-05 - accuracy: 1.0000 - val_loss: 0.3929 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 118/500
11/11 [==============================] - 48s 5s/step - loss: 9.4538e-05 - accuracy: 1.0000 - val_loss: 0.3943 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 119/500
11/11 [==============================] - 48s 5s/step - loss: 3.6923e-05 - accuracy: 1.0000 - val_loss: 0.3954 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 120/500
11/11 [==============================] - 48s 5s/step - loss: 4.5557e-05 - accuracy: 1.0000 - val_loss: 0.3963 - val_accuracy: 0.9180
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 121/500
11/11 [==============================] - 48s 5s/step - loss: 1.8007e-05 - accuracy: 1.0000 - val_loss: 0.3976 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 122/500
11/11 [==============================] - 48s 5s/step - loss: 2.7549e-05 - accuracy: 1.0000 - val_loss: 0.3985 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 123/500
11/11 [==============================] - 48s 5s/step - loss: 2.0099e-05 - accuracy: 1.0000 - val_loss: 0.3999 - val_accuracy: 0.9173
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 124/500
11/11 [==============================] - 48s 5s/step - loss: 2.2145e-04 - accuracy: 1.0000 - val_loss: 0.3992 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 125/500
11/11 [==============================] - 48s 5s/step - loss: 9.6704e-05 - accuracy: 1.0000 - val_loss: 0.3998 - val_accuracy: 0.9173
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 126/500
11/11 [==============================] - 48s 5s/step - loss: 2.7331e-05 - accuracy: 1.0000 - val_loss: 0.4006 - val_accuracy: 0.9173
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 127/500
11/11 [==============================] - 48s 5s/step - loss: 2.7467e-05 - accuracy: 1.0000 - val_loss: 0.4017 - val_accuracy: 0.9173
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 128/500
11/11 [==============================] - 48s 5s/step - loss: 1.7899e-05 - accuracy: 1.0000 - val_loss: 0.4028 - val_accuracy: 0.9180
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 129/500
11/11 [==============================] - 48s 5s/step - loss: 2.0511e-05 - accuracy: 1.0000 - val_loss: 0.4048 - val_accuracy: 0.9173
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 130/500

11/11 [==============================] - 48s 5s/step - loss: 1.9856e-05 - accuracy: 1.0000 - val_loss: 0.4057 - val_accuracy: 0.9173
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 131/500
11/11 [==============================] - 48s 5s/step - loss: 2.7444e-05 - accuracy: 1.0000 - val_loss: 0.4064 - val_accuracy: 0.9173
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 132/500
11/11 [==============================] - 48s 5s/step - loss: 2.5274e-05 - accuracy: 1.0000 - val_loss: 0.4062 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 133/500
11/11 [==============================] - 48s 5s/step - loss: 7.7899e-05 - accuracy: 1.0000 - val_loss: 0.4057 - val_accuracy: 0.9180
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 134/500
11/11 [==============================] - 48s 5s/step - loss: 1.3961e-05 - accuracy: 1.0000 - val_loss: 0.4066 - val_accuracy: 0.9180
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 135/500
11/11 [==============================] - 48s 5s/step - loss: 1.3524e-05 - accuracy: 1.0000 - val_loss: 0.4079 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 136/500
11/11 [==============================] - 48s 5s/step - loss: 1.0854e-04 - accuracy: 1.0000 - val_loss: 0.4090 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 137/500
11/11 [==============================] - 48s 5s/step - loss: 2.4874e-05 - accuracy: 1.0000 - val_loss: 0.4104 - val_accuracy: 0.9180
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 138/500
11/11 [==============================] - 48s 5s/step - loss: 1.7685e-05 - accuracy: 1.0000 - val_loss: 0.4111 - val_accuracy: 0.9180
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 139/500
11/11 [==============================] - 48s 5s/step - loss: 2.0170e-05 - accuracy: 1.0000 - val_loss: 0.4114 - val_accuracy: 0.9180
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 140/500
11/11 [==============================] - 48s 5s/step - loss: 1.0855e-04 - accuracy: 1.0000 - val_loss: 0.4112 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 141/500
11/11 [==============================] - 48s 5s/step - loss: 2.8712e-05 - accuracy: 1.0000 - val_loss: 0.4120 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 142/500
11/11 [==============================] - 48s 5s/step - loss: 4.7011e-05 - accuracy: 1.0000 - val_loss: 0.4115 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 143/500
11/11 [==============================] - 48s 5s/step - loss: 8.6859e-06 - accuracy: 1.0000 - val_loss: 0.4110 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 144/500
11/11 [==============================] - 48s 5s/step - loss: 8.4667e-06 - accuracy: 1.0000 - val_loss: 0.4117 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 145/500
11/11 [==============================] - 48s 5s/step - loss: 1.4650e-05 - accuracy: 1.0000 - val_loss: 0.4123 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 146/500
11/11 [==============================] - 48s 5s/step - loss: 1.1881e-05 - accuracy: 1.0000 - val_loss: 0.4132 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr

WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 147/500
11/11 [==============================] - 48s 5s/step - loss: 1.3160e-05 - accuracy: 1.0000 - val_loss: 0.4146 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 148/500
11/11 [==============================] - 48s 5s/step - loss: 2.2561e-05 - accuracy: 1.0000 - val_loss: 0.4148 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 149/500
11/11 [==============================] - 48s 5s/step - loss: 1.2131e-05 - accuracy: 1.0000 - val_loss: 0.4157 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 150/500
11/11 [==============================] - 48s 5s/step - loss: 1.9721e-05 - accuracy: 1.0000 - val_loss: 0.4164 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 151/500
11/11 [==============================] - 48s 5s/step - loss: 1.2438e-05 - accuracy: 1.0000 - val_loss: 0.4163 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 152/500
11/11 [==============================] - 48s 5s/step - loss: 1.4253e-05 - accuracy: 1.0000 - val_loss: 0.4171 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 153/500
11/11 [==============================] - 48s 5s/step - loss: 4.1817e-05 - accuracy: 1.0000 - val_loss: 0.4179 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 154/500
11/11 [==============================] - 48s 5s/step - loss: 1.3415e-05 - accuracy: 1.0000 - val_loss: 0.4181 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 155/500
11/11 [==============================] - 48s 5s/step - loss: 1.3565e-05 - accuracy: 1.0000 - val_loss: 0.4185 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 156/500
11/11 [==============================] - 48s 5s/step - loss: 1.6885e-05 - accuracy: 1.0000 - val_loss: 0.4193 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 157/500
11/11 [==============================] - 48s 5s/step - loss: 5.5678e-06 - accuracy: 1.0000 - val_loss: 0.4200 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 158/500
11/11 [==============================] - 48s 5s/step - loss: 1.7411e-05 - accuracy: 1.0000 - val_loss: 0.4200 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 159/500
11/11 [==============================] - 48s 5s/step - loss: 1.3792e-05 - accuracy: 1.0000 - val_loss: 0.4199 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 160/500
11/11 [==============================] - 48s 5s/step - loss: 7.2816e-06 - accuracy: 1.0000 - val_loss: 0.4212 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 161/500
11/11 [==============================] - 48s 5s/step - loss: 1.2388e-05 - accuracy: 1.0000 - val_loss: 0.4207 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 162/500
11/11 [==============================] - 48s 5s/step - loss: 2.0774e-05 - accuracy: 1.0000 - val_loss: 0.4205 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 163/500
11/11 [==============================] - 48s 5s/step - loss: 1.7518e-05 - accuracy: 1.0000 - val_loss: 0.4200 - val_accuracy: 0.9187

11/11 [==============================] - 48s 5s/step - loss: 1.7518e-05 - accuracy: 1.0000 - val_loss: 0.4209 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 164/500
11/11 [==============================] - 48s 5s/step - loss: 1.0430e-05 - accuracy: 1.0000 - val_loss: 0.4241 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 165/500
11/11 [==============================] - 48s 5s/step - loss: 6.5876e-06 - accuracy: 1.0000 - val_loss: 0.4265 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 166/500
11/11 [==============================] - 48s 5s/step - loss: 7.4081e-06 - accuracy: 1.0000 - val_loss: 0.4278 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 167/500
11/11 [==============================] - 48s 5s/step - loss: 2.1471e-05 - accuracy: 1.0000 - val_loss: 0.4285 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 168/500
11/11 [==============================] - 48s 5s/step - loss: 1.3743e-05 - accuracy: 1.0000 - val_loss: 0.4287 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 169/500
11/11 [==============================] - 48s 5s/step - loss: 9.1043e-06 - accuracy: 1.0000 - val_loss: 0.4299 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 170/500
11/11 [==============================] - 48s 5s/step - loss: 1.1774e-05 - accuracy: 1.0000 - val_loss: 0.4302 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 171/500
11/11 [==============================] - 48s 5s/step - loss: 1.3844e-05 - accuracy: 1.0000 - val_loss: 0.4293 - val_accuracy: 0.9180
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 172/500
11/11 [==============================] - 48s 5s/step - loss: 3.0252e-05 - accuracy: 1.0000 - val_loss: 0.4285 - val_accuracy: 0.9180
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 173/500
11/11 [==============================] - 48s 5s/step - loss: 1.2311e-05 - accuracy: 1.0000 - val_loss: 0.4293 - val_accuracy: 0.9180
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 174/500
11/11 [==============================] - 48s 5s/step - loss: 4.6126e-06 - accuracy: 1.0000 - val_loss: 0.4303 - val_accuracy: 0.9180
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 175/500
11/11 [==============================] - 48s 5s/step - loss: 1.0697e-05 - accuracy: 1.0000 - val_loss: 0.4315 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 176/500
11/11 [==============================] - 48s 5s/step - loss: 2.8871e-05 - accuracy: 1.0000 - val_loss: 0.4317 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 177/500
11/11 [==============================] - 48s 5s/step - loss: 8.5170e-06 - accuracy: 1.0000 - val_loss: 0.4319 - val_accuracy: 0.9180
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 178/500
11/11 [==============================] - 48s 5s/step - loss: 8.3248e-06 - accuracy: 1.0000 - val_loss: 0.4329 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 179/500
11/11 [==============================] - 48s 5s/step - loss: 9.4765e-06 - accuracy: 1.0000 - val_loss: 0.4330 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr

WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 180/500
11/11 [==============================] - 48s 5s/step - loss: 8.8561e-06 - accuracy: 1.0000 - val_loss: 0.4333 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 181/500
11/11 [==============================] - 48s 5s/step - loss: 4.0878e-06 - accuracy: 1.0000 - val_loss: 0.4340 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 182/500
11/11 [==============================] - 48s 5s/step - loss: 1.5553e-05 - accuracy: 1.0000 - val_loss: 0.4347 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 183/500
11/11 [==============================] - 48s 5s/step - loss: 2.4023e-05 - accuracy: 1.0000 - val_loss: 0.4326 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 184/500
11/11 [==============================] - 48s 5s/step - loss: 6.7500e-06 - accuracy: 1.0000 - val_loss: 0.4345 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 185/500
11/11 [==============================] - 48s 5s/step - loss: 1.2344e-05 - accuracy: 1.0000 - val_loss: 0.4356 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 186/500
11/11 [==============================] - 48s 5s/step - loss: 4.3053e-06 - accuracy: 1.0000 - val_loss: 0.4370 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 187/500
11/11 [==============================] - 48s 5s/step - loss: 8.4389e-06 - accuracy: 1.0000 - val_loss: 0.4367 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 188/500
11/11 [==============================] - 48s 5s/step - loss: 1.4947e-05 - accuracy: 1.0000 - val_loss: 0.4350 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 189/500
11/11 [==============================] - 48s 5s/step - loss: 1.7239e-05 - accuracy: 1.0000 - val_loss: 0.4361 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 190/500
11/11 [==============================] - 48s 5s/step - loss: 6.2880e-06 - accuracy: 1.0000 - val_loss: 0.4354 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 191/500
11/11 [==============================] - 48s 5s/step - loss: 8.6845e-06 - accuracy: 1.0000 - val_loss: 0.4369 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 192/500
11/11 [==============================] - 48s 5s/step - loss: 3.0763e-06 - accuracy: 1.0000 - val_loss: 0.4381 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 193/500
11/11 [==============================] - 48s 5s/step - loss: 6.0406e-06 - accuracy: 1.0000 - val_loss: 0.4387 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 194/500
11/11 [==============================] - 48s 5s/step - loss: 9.7813e-06 - accuracy: 1.0000 - val_loss: 0.4381 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 195/500
11/11 [==============================] - 48s 5s/step - loss: 7.9241e-06 - accuracy: 1.0000 - val_loss: 0.4392 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 196/500
11/11 [==============================] - 48s 5s/step - loss: 4.4542e-06 - accuracy: 1.0000 - val_loss: 0.4400 - val_accuracy: 0.9209

11/11 [==============================] - 48s 5s/step - loss: 4.4542e-06 - accuracy: 1.0000 - val_loss: 0.4400 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 197/500
11/11 [==============================] - 48s 5s/step - loss: 1.0395e-05 - accuracy: 1.0000 - val_loss: 0.4399 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 198/500
11/11 [==============================] - 48s 5s/step - loss: 5.0747e-06 - accuracy: 1.0000 - val_loss: 0.4406 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 199/500
11/11 [==============================] - 48s 5s/step - loss: 8.2415e-06 - accuracy: 1.0000 - val_loss: 0.4414 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 200/500
11/11 [==============================] - 48s 5s/step - loss: 4.6382e-06 - accuracy: 1.0000 - val_loss: 0.4413 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 201/500
11/11 [==============================] - 48s 5s/step - loss: 3.0004e-05 - accuracy: 1.0000 - val_loss: 0.4397 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 202/500
11/11 [==============================] - 48s 5s/step - loss: 4.5295e-06 - accuracy: 1.0000 - val_loss: 0.4396 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 203/500
11/11 [==============================] - 48s 5s/step - loss: 3.5251e-06 - accuracy: 1.0000 - val_loss: 0.4409 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 204/500
11/11 [==============================] - 48s 5s/step - loss: 5.7007e-06 - accuracy: 1.0000 - val_loss: 0.4413 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 205/500
11/11 [==============================] - 48s 5s/step - loss: 6.3532e-06 - accuracy: 1.0000 - val_loss: 0.4406 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 206/500
11/11 [==============================] - 48s 5s/step - loss: 5.2399e-06 - accuracy: 1.0000 - val_loss: 0.4413 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 207/500
11/11 [==============================] - 48s 5s/step - loss: 7.2771e-06 - accuracy: 1.0000 - val_loss: 0.4423 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 208/500
11/11 [==============================] - 48s 5s/step - loss: 5.6854e-06 - accuracy: 1.0000 - val_loss: 0.4425 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 209/500
11/11 [==============================] - 48s 5s/step - loss: 9.5078e-06 - accuracy: 1.0000 - val_loss: 0.4416 - val_accuracy: 0.9216
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 210/500
11/11 [==============================] - 48s 5s/step - loss: 2.8014e-06 - accuracy: 1.0000 - val_loss: 0.4422 - val_accuracy: 0.9216
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 211/500
11/11 [==============================] - 48s 5s/step - loss: 2.2420e-05 - accuracy: 1.0000 - val_loss: 0.4419 - val_accuracy: 0.9223
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 212/500
11/11 [==============================] - 48s 5s/step - loss: 3.8231e-06 - accuracy: 1.0000 - val_loss: 0.4427 - val_accuracy: 0.9223
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr

WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 213/500
11/11 [==============================] - 48s 5s/step - loss: 5.3143e-06 - accuracy: 1.0000 - val_loss: 0.4436 - val_accuracy: 0.9223
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 214/500
11/11 [==============================] - 48s 5s/step - loss: 5.5332e-06 - accuracy: 1.0000 - val_loss: 0.4440 - val_accuracy: 0.9223
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 215/500
11/11 [==============================] - 48s 5s/step - loss: 2.7722e-06 - accuracy: 1.0000 - val_loss: 0.4449 - val_accuracy: 0.9223
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 216/500
11/11 [==============================] - 48s 5s/step - loss: 7.4699e-06 - accuracy: 1.0000 - val_loss: 0.4444 - val_accuracy: 0.9223
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 217/500
11/11 [==============================] - 48s 5s/step - loss: 4.9915e-06 - accuracy: 1.0000 - val_loss: 0.4465 - val_accuracy: 0.9223
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 218/500
11/11 [==============================] - 48s 5s/step - loss: 6.5715e-06 - accuracy: 1.0000 - val_loss: 0.4474 - val_accuracy: 0.9223
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 219/500
11/11 [==============================] - 48s 5s/step - loss: 3.7431e-06 - accuracy: 1.0000 - val_loss: 0.4476 - val_accuracy: 0.9223
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 220/500
11/11 [==============================] - 48s 5s/step - loss: 1.1728e-05 - accuracy: 1.0000 - val_loss: 0.4482 - val_accuracy: 0.9223
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 221/500
11/11 [==============================] - 48s 5s/step - loss: 5.0907e-06 - accuracy: 1.0000 - val_loss: 0.4485 - val_accuracy: 0.9223
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 222/500
11/11 [==============================] - 48s 5s/step - loss: 2.0338e-06 - accuracy: 1.0000 - val_loss: 0.4486 - val_accuracy: 0.9223
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 223/500
11/11 [==============================] - 48s 5s/step - loss: 9.4692e-04 - accuracy: 1.0000 - val_loss: 0.4714 - val_accuracy: 0.9180
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 224/500
11/11 [==============================] - 48s 5s/step - loss: 1.6890e-04 - accuracy: 1.0000 - val_loss: 0.4824 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 225/500
11/11 [==============================] - 48s 5s/step - loss: 4.7849e-05 - accuracy: 1.0000 - val_loss: 0.4870 - val_accuracy: 0.9129
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 226/500
11/11 [==============================] - 48s 5s/step - loss: 6.3272e-05 - accuracy: 1.0000 - val_loss: 0.4866 - val_accuracy: 0.9137
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 227/500
11/11 [==============================] - 48s 5s/step - loss: 4.4668e-05 - accuracy: 1.0000 - val_loss: 0.4842 - val_accuracy: 0.9144
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 228/500
11/11 [==============================] - 48s 5s/step - loss: 2.4675e-05 - accuracy: 1.0000 - val_loss: 0.4836 - val_accuracy: 0.9129
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 229/500
11/11 [==============================] - 48s 5s/step - loss: 9.9508e-05 - accuracy: 1.0000 - val_loss: 0.4795 - val_accuracy: 0.9137

11/11 [==========] - 48s 5s/step - loss: 9.9508e-05 - accuracy: 1.0000 - val_loss: 0.4795 - val_accuracy: 0.9137
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 230/500
11/11 [==========] - 48s 5s/step - loss: 3.0679e-05 - accuracy: 1.0000 - val_loss: 0.4769 - val_accuracy: 0.9129
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 231/500
11/11 [==========] - 48s 5s/step - loss: 3.1726e-05 - accuracy: 1.0000 - val_loss: 0.4751 - val_accuracy: 0.9144
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 232/500
11/11 [==========] - 48s 5s/step - loss: 5.0645e-06 - accuracy: 1.0000 - val_loss: 0.4731 - val_accuracy: 0.9137
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 233/500
11/11 [==========] - 48s 5s/step - loss: 7.3573e-06 - accuracy: 1.0000 - val_loss: 0.4727 - val_accuracy: 0.9144
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 234/500
11/11 [==========] - 48s 5s/step - loss: 7.6400e-06 - accuracy: 1.0000 - val_loss: 0.4730 - val_accuracy: 0.9137
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 235/500
11/11 [==========] - 48s 5s/step - loss: 3.3215e-06 - accuracy: 1.0000 - val_loss: 0.4753 - val_accuracy: 0.9137
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 236/500
11/11 [==========] - 48s 5s/step - loss: 4.6201e-06 - accuracy: 1.0000 - val_loss: 0.4788 - val_accuracy: 0.9144
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 237/500
11/11 [==========] - 48s 5s/step - loss: 2.1240e-06 - accuracy: 1.0000 - val_loss: 0.4820 - val_accuracy: 0.9137
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 238/500
11/11 [==========] - 48s 5s/step - loss: 1.4733e-05 - accuracy: 1.0000 - val_loss: 0.4847 - val_accuracy: 0.9137
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 239/500
11/11 [==========] - 48s 5s/step - loss: 1.0733e-05 - accuracy: 1.0000 - val_loss: 0.4855 - val_accuracy: 0.9137
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 240/500
11/11 [==========] - 48s 5s/step - loss: 3.7834e-06 - accuracy: 1.0000 - val_loss: 0.4879 - val_accuracy: 0.9137
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 241/500
11/11 [==========] - 48s 5s/step - loss: 3.6342e-06 - accuracy: 1.0000 - val_loss: 0.4893 - val_accuracy: 0.9122
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 242/500
11/11 [==========] - 48s 5s/step - loss: 5.2419e-06 - accuracy: 1.0000 - val_loss: 0.4896 - val_accuracy: 0.9122
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 243/500
11/11 [==========] - 48s 5s/step - loss: 2.0569e-06 - accuracy: 1.0000 - val_loss: 0.4927 - val_accuracy: 0.9115
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 244/500
11/11 [==========] - 48s 5s/step - loss: 1.3104e-05 - accuracy: 1.0000 - val_loss: 0.4928 - val_accuracy: 0.9115
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 245/500
11/11 [==========] - 48s 5s/step - loss: 1.1236e-05 - accuracy: 1.0000 - val_loss: 0.4931 - val_accuracy: 0.9115
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr

WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 246/500
11/11 [==============================] - 48s 5s/step - loss: 4.7756e-06 - accuracy: 1.0000 - val_loss: 0.4949 - val_accuracy: 0.9115
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 247/500
11/11 [==============================] - 48s 5s/step - loss: 2.7625e-06 - accuracy: 1.0000 - val_loss: 0.4965 - val_accuracy: 0.9115
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 248/500
11/11 [==============================] - 48s 5s/step - loss: 2.6426e-06 - accuracy: 1.0000 - val_loss: 0.4978 - val_accuracy: 0.9115
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 249/500
11/11 [==============================] - 48s 5s/step - loss: 6.7758e-06 - accuracy: 1.0000 - val_loss: 0.4980 - val_accuracy: 0.9115
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 250/500
11/11 [==============================] - 48s 5s/step - loss: 1.9409e-06 - accuracy: 1.0000 - val_loss: 0.5005 - val_accuracy: 0.9115
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 251/500
11/11 [==============================] - 48s 5s/step - loss: 2.9096e-06 - accuracy: 1.0000 - val_loss: 0.5020 - val_accuracy: 0.9115
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 252/500
11/11 [==============================] - 48s 5s/step - loss: 4.7227e-06 - accuracy: 1.0000 - val_loss: 0.5027 - val_accuracy: 0.9115
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 253/500
11/11 [==============================] - 48s 5s/step - loss: 5.9495e-06 - accuracy: 1.0000 - val_loss: 0.5028 - val_accuracy: 0.9115
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 254/500
11/11 [==============================] - 48s 5s/step - loss: 8.0250e-06 - accuracy: 1.0000 - val_loss: 0.5028 - val_accuracy: 0.9115
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 255/500
11/11 [==============================] - 48s 5s/step - loss: 3.0385e-06 - accuracy: 1.0000 - val_loss: 0.5002 - val_accuracy: 0.9122
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 256/500
11/11 [==============================] - 49s 5s/step - loss: 2.6362e-06 - accuracy: 1.0000 - val_loss: 0.5006 - val_accuracy: 0.9122
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 257/500
11/11 [==============================] - 48s 5s/step - loss: 1.8012e-06 - accuracy: 1.0000 - val_loss: 0.5001 - val_accuracy: 0.9129
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 258/500
11/11 [==============================] - 48s 5s/step - loss: 1.0021e-05 - accuracy: 1.0000 - val_loss: 0.4999 - val_accuracy: 0.9129
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 259/500
11/11 [==============================] - 48s 5s/step - loss: 1.8280e-06 - accuracy: 1.0000 - val_loss: 0.5020 - val_accuracy: 0.9129
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 260/500
11/11 [==============================] - 48s 5s/step - loss: 5.3441e-06 - accuracy: 1.0000 - val_loss: 0.5019 - val_accuracy: 0.9129
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 261/500
11/11 [==============================] - 48s 5s/step - loss: 4.3013e-06 - accuracy: 1.0000 - val_loss: 0.5035 - val_accuracy: 0.9129
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 262/500
11/11 [==============================] - 48s 5s/step - loss: 2.3809e-06 - accuracy: 1.0000 - val_loss: 0.5041 - val_accuracy: 0.9129

11/11 [==========] - 48s 5s/step - loss: 2.8809e-06 - accuracy: 1.0000 - val_loss: 0.5041 - val_accuracy: 0.9129
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 263/500
11/11 [==========] - 48s 5s/step - loss: 1.8881e-05 - accuracy: 1.0000 - val_loss: 0.5044 - val_accuracy: 0.9129
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 264/500
11/11 [==========] - 48s 5s/step - loss: 2.8079e-06 - accuracy: 1.0000 - val_loss: 0.5056 - val_accuracy: 0.9129
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 265/500
11/11 [==========] - 48s 5s/step - loss: 1.5519e-06 - accuracy: 1.0000 - val_loss: 0.5068 - val_accuracy: 0.9129
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 266/500
11/11 [==========] - 48s 5s/step - loss: 3.2559e-06 - accuracy: 1.0000 - val_loss: 0.5067 - val_accuracy: 0.9129
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 267/500
11/11 [==========] - 48s 5s/step - loss: 2.1716e-06 - accuracy: 1.0000 - val_loss: 0.5079 - val_accuracy: 0.9129
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 268/500
11/11 [==========] - 48s 5s/step - loss: 2.9969e-06 - accuracy: 1.0000 - val_loss: 0.5072 - val_accuracy: 0.9129
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 269/500
11/11 [==========] - 48s 5s/step - loss: 2.6628e-06 - accuracy: 1.0000 - val_loss: 0.5064 - val_accuracy: 0.9137
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 270/500
11/11 [==========] - 48s 5s/step - loss: 1.8796e-06 - accuracy: 1.0000 - val_loss: 0.5043 - val_accuracy: 0.9144
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 271/500
11/11 [==========] - 48s 5s/step - loss: 8.1266e-06 - accuracy: 1.0000 - val_loss: 0.5048 - val_accuracy: 0.9144
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 272/500
11/11 [==========] - 48s 5s/step - loss: 2.3861e-06 - accuracy: 1.0000 - val_loss: 0.5060 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 273/500
11/11 [==========] - 48s 5s/step - loss: 3.9208e-06 - accuracy: 1.0000 - val_loss: 0.5064 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 274/500
11/11 [==========] - 48s 5s/step - loss: 1.3456e-06 - accuracy: 1.0000 - val_loss: 0.5057 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 275/500
11/11 [==========] - 48s 5s/step - loss: 1.2081e-06 - accuracy: 1.0000 - val_loss: 0.5076 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 276/500
11/11 [==========] - 48s 5s/step - loss: 1.2208e-06 - accuracy: 1.0000 - val_loss: 0.5086 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 277/500
11/11 [==========] - 48s 5s/step - loss: 3.0803e-06 - accuracy: 1.0000 - val_loss: 0.5099 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 278/500
11/11 [==========] - 48s 5s/step - loss: 1.0357e-05 - accuracy: 1.0000 - val_loss: 0.5093 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr

WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 279/500
11/11 [==============================] - 48s 5s/step - loss: 2.3707e-06 - accuracy: 1.0000 - val_loss: 0.5106 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 280/500
11/11 [==============================] - 48s 5s/step - loss: 1.1918e-06 - accuracy: 1.0000 - val_loss: 0.5104 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 281/500
11/11 [==============================] - 48s 5s/step - loss: 4.9529e-06 - accuracy: 1.0000 - val_loss: 0.5106 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 282/500
11/11 [==============================] - 48s 5s/step - loss: 2.0376e-06 - accuracy: 1.0000 - val_loss: 0.5111 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 283/500
11/11 [==============================] - 48s 5s/step - loss: 2.1150e-06 - accuracy: 1.0000 - val_loss: 0.5118 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 284/500
11/11 [==============================] - 48s 5s/step - loss: 2.1556e-06 - accuracy: 1.0000 - val_loss: 0.5129 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 285/500
11/11 [==============================] - 48s 5s/step - loss: 1.8066e-06 - accuracy: 1.0000 - val_loss: 0.5127 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 286/500
11/11 [==============================] - 48s 5s/step - loss: 1.0619e-05 - accuracy: 1.0000 - val_loss: 0.5118 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 287/500
11/11 [==============================] - 48s 5s/step - loss: 5.5646e-06 - accuracy: 1.0000 - val_loss: 0.5121 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 288/500
11/11 [==============================] - 48s 5s/step - loss: 3.1460e-06 - accuracy: 1.0000 - val_loss: 0.5117 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 289/500
11/11 [==============================] - 48s 5s/step - loss: 1.2558e-06 - accuracy: 1.0000 - val_loss: 0.5124 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 290/500
11/11 [==============================] - 48s 5s/step - loss: 2.0563e-06 - accuracy: 1.0000 - val_loss: 0.5123 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 291/500
11/11 [==============================] - 48s 5s/step - loss: 1.3016e-06 - accuracy: 1.0000 - val_loss: 0.5123 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 292/500
11/11 [==============================] - 48s 5s/step - loss: 3.5555e-06 - accuracy: 1.0000 - val_loss: 0.5118 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 293/500
11/11 [==============================] - 48s 5s/step - loss: 5.8730e-06 - accuracy: 1.0000 - val_loss: 0.5117 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 294/500
11/11 [==============================] - 48s 5s/step - loss: 1.2225e-06 - accuracy: 1.0000 - val_loss: 0.5136 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 295/500
11/11 [==============================] - 48s 5s/step - loss: 2.7974e-06 - accuracy: 1.0000 - val_loss: 0.5141 - val_accuracy: 0.9158

WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 296/500
11/11 [==============================] - 48s 5s/step - loss: 1.0742e-06 - accuracy: 1.0000 - val_loss: 0.5131 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 297/500
11/11 [==============================] - 48s 5s/step - loss: 2.1150e-06 - accuracy: 1.0000 - val_loss: 0.5113 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 298/500
11/11 [==============================] - 48s 5s/step - loss: 1.3201e-06 - accuracy: 1.0000 - val_loss: 0.5123 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 299/500
11/11 [==============================] - 48s 5s/step - loss: 2.9454e-05 - accuracy: 1.0000 - val_loss: 0.5120 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 300/500
11/11 [==============================] - 48s 5s/step - loss: 7.1488e-06 - accuracy: 1.0000 - val_loss: 0.5106 - val_accuracy: 0.9144
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 301/500
11/11 [==============================] - 48s 5s/step - loss: 1.6695e-06 - accuracy: 1.0000 - val_loss: 0.5110 - val_accuracy: 0.9144
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 302/500
11/11 [==============================] - 48s 5s/step - loss: 1.3042e-06 - accuracy: 1.0000 - val_loss: 0.5118 - val_accuracy: 0.9144
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 303/500
11/11 [==============================] - 48s 5s/step - loss: 1.7215e-06 - accuracy: 1.0000 - val_loss: 0.5109 - val_accuracy: 0.9144
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 304/500
11/11 [==============================] - 48s 5s/step - loss: 1.0003e-06 - accuracy: 1.0000 - val_loss: 0.5121 - val_accuracy: 0.9144
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 305/500
11/11 [==============================] - 48s 5s/step - loss: 1.1121e-06 - accuracy: 1.0000 - val_loss: 0.5127 - val_accuracy: 0.9144
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 306/500
11/11 [==============================] - 48s 5s/step - loss: 8.3734e-07 - accuracy: 1.0000 - val_loss: 0.5141 - val_accuracy: 0.9144
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 307/500
11/11 [==============================] - 48s 5s/step - loss: 8.6188e-06 - accuracy: 1.0000 - val_loss: 0.5132 - val_accuracy: 0.9144
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 308/500
11/11 [==============================] - 48s 5s/step - loss: 1.1083e-06 - accuracy: 1.0000 - val_loss: 0.5127 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 309/500
11/11 [==============================] - 48s 5s/step - loss: 9.6341e-07 - accuracy: 1.0000 - val_loss: 0.5138 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 310/500
11/11 [==============================] - 48s 5s/step - loss: 6.3192e-07 - accuracy: 1.0000 - val_loss: 0.5146 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 311/500
11/11 [==============================] - 48s 5s/step - loss: 2.0650e-06 - accuracy: 1.0000 - val_loss: 0.5162 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr

WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 312/500
11/11 [==============================] - 48s 5s/step - loss: 7.1817e-07 - accuracy: 1.0000 - val_loss: 0.5153 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 313/500
11/11 [==============================] - 48s 5s/step - loss: 1.1833e-06 - accuracy: 1.0000 - val_loss: 0.5163 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 314/500
11/11 [==============================] - 48s 5s/step - loss: 2.5339e-06 - accuracy: 1.0000 - val_loss: 0.5170 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 315/500
11/11 [==============================] - 48s 5s/step - loss: 7.3564e-06 - accuracy: 1.0000 - val_loss: 0.5143 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 316/500
11/11 [==============================] - 48s 5s/step - loss: 1.6331e-06 - accuracy: 1.0000 - val_loss: 0.5150 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 317/500
11/11 [==============================] - 48s 5s/step - loss: 5.5973e-07 - accuracy: 1.0000 - val_loss: 0.5152 - val_accuracy: 0.9144
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 318/500
11/11 [==============================] - 48s 5s/step - loss: 4.4283e-06 - accuracy: 1.0000 - val_loss: 0.5141 - val_accuracy: 0.9144
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 319/500
11/11 [==============================] - 48s 5s/step - loss: 1.4557e-06 - accuracy: 1.0000 - val_loss: 0.5149 - val_accuracy: 0.9144
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 320/500
11/11 [==============================] - 48s 5s/step - loss: 1.0543e-06 - accuracy: 1.0000 - val_loss: 0.5142 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 321/500
11/11 [==============================] - 48s 5s/step - loss: 4.0186e-06 - accuracy: 1.0000 - val_loss: 0.5147 - val_accuracy: 0.9144
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 322/500
11/11 [==============================] - 48s 5s/step - loss: 2.0849e-06 - accuracy: 1.0000 - val_loss: 0.5149 - val_accuracy: 0.9144
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 323/500
11/11 [==============================] - 48s 5s/step - loss: 7.9842e-06 - accuracy: 1.0000 - val_loss: 0.5151 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 324/500
11/11 [==============================] - 48s 5s/step - loss: 7.0446e-07 - accuracy: 1.0000 - val_loss: 0.5157 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 325/500
11/11 [==============================] - 48s 5s/step - loss: 1.3118e-06 - accuracy: 1.0000 - val_loss: 0.5171 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 326/500
11/11 [==============================] - 48s 5s/step - loss: 1.5292e-06 - accuracy: 1.0000 - val_loss: 0.5178 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 327/500
11/11 [==============================] - 48s 5s/step - loss: 1.1689e-06 - accuracy: 1.0000 - val_loss: 0.5180 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 328/500
11/11 [==============================] - 48s 5s/step - loss: 3.0761e-06 - accuracy: 1.0000 - val_loss: 0.5183 - val_accuracy: 0.9151

WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 329/500
11/11 [==============================] - 48s 5s/step - loss: 5.8824e-07 - accuracy: 1.0000 - val_loss: 0.5195 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 330/500
11/11 [==============================] - 48s 5s/step - loss: 9.2043e-07 - accuracy: 1.0000 - val_loss: 0.5201 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 331/500
11/11 [==============================] - 48s 5s/step - loss: 5.6465e-07 - accuracy: 1.0000 - val_loss: 0.5203 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 332/500
11/11 [==============================] - 48s 5s/step - loss: 6.2123e-07 - accuracy: 1.0000 - val_loss: 0.5201 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 333/500
11/11 [==============================] - 48s 5s/step - loss: 1.0342e-05 - accuracy: 1.0000 - val_loss: 0.5182 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 334/500
11/11 [==============================] - 48s 5s/step - loss: 1.0250e-06 - accuracy: 1.0000 - val_loss: 0.5179 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 335/500
11/11 [==============================] - 48s 5s/step - loss: 1.5961e-06 - accuracy: 1.0000 - val_loss: 0.5177 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 336/500
11/11 [==============================] - 48s 5s/step - loss: 3.8444e-06 - accuracy: 1.0000 - val_loss: 0.5176 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 337/500
11/11 [==============================] - 48s 5s/step - loss: 7.2675e-07 - accuracy: 1.0000 - val_loss: 0.5170 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 338/500
11/11 [==============================] - 48s 5s/step - loss: 1.2474e-06 - accuracy: 1.0000 - val_loss: 0.5175 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 339/500
11/11 [==============================] - 48s 5s/step - loss: 2.4012e-06 - accuracy: 1.0000 - val_loss: 0.5179 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 340/500
11/11 [==============================] - 48s 5s/step - loss: 1.1913e-06 - accuracy: 1.0000 - val_loss: 0.5171 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 341/500
11/11 [==============================] - 48s 5s/step - loss: 6.8289e-07 - accuracy: 1.0000 - val_loss: 0.5175 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 342/500
11/11 [==============================] - 48s 5s/step - loss: 8.1244e-07 - accuracy: 1.0000 - val_loss: 0.5183 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 343/500
11/11 [==============================] - 48s 5s/step - loss: 1.5214e-06 - accuracy: 1.0000 - val_loss: 0.5194 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 344/500
11/11 [==============================] - 48s 5s/step - loss: 5.2923e-07 - accuracy: 1.0000 - val_loss: 0.5202 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr

WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 345/500
11/11 [==============================] - 48s 5s/step - loss: 2.6251e-06 - accuracy: 1.0000 - val_loss: 0.5189 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 346/500
11/11 [==============================] - 48s 5s/step - loss: 1.1920e-06 - accuracy: 1.0000 - val_loss: 0.5177 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 347/500
11/11 [==============================] - 48s 5s/step - loss: 7.2008e-07 - accuracy: 1.0000 - val_loss: 0.5181 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 348/500
11/11 [==============================] - 48s 5s/step - loss: 4.3322e-07 - accuracy: 1.0000 - val_loss: 0.5195 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 349/500
11/11 [==============================] - 48s 5s/step - loss: 7.3411e-07 - accuracy: 1.0000 - val_loss: 0.5194 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 350/500
11/11 [==============================] - 48s 5s/step - loss: 1.0333e-06 - accuracy: 1.0000 - val_loss: 0.5186 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 351/500
11/11 [==============================] - 48s 5s/step - loss: 1.1426e-06 - accuracy: 1.0000 - val_loss: 0.5190 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 352/500
11/11 [==============================] - 48s 5s/step - loss: 3.0323e-06 - accuracy: 1.0000 - val_loss: 0.5198 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 353/500
11/11 [==============================] - 48s 5s/step - loss: 2.9827e-06 - accuracy: 1.0000 - val_loss: 0.5207 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 354/500
11/11 [==============================] - 48s 5s/step - loss: 1.1367e-06 - accuracy: 1.0000 - val_loss: 0.5206 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 355/500
11/11 [==============================] - 48s 5s/step - loss: 1.2867e-06 - accuracy: 1.0000 - val_loss: 0.5224 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 356/500
11/11 [==============================] - 48s 5s/step - loss: 5.9580e-06 - accuracy: 1.0000 - val_loss: 0.5223 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 357/500
11/11 [==============================] - 48s 5s/step - loss: 5.9771e-07 - accuracy: 1.0000 - val_loss: 0.5232 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 358/500
11/11 [==============================] - 48s 5s/step - loss: 6.1562e-07 - accuracy: 1.0000 - val_loss: 0.5240 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 359/500
11/11 [==============================] - 48s 5s/step - loss: 4.3840e-07 - accuracy: 1.0000 - val_loss: 0.5253 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 360/500
11/11 [==============================] - 48s 5s/step - loss: 7.3805e-07 - accuracy: 1.0000 - val_loss: 0.5257 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 361/500
11/11 [==============================] - 48s 5s/step - loss: 8.3671e-07 - accuracy: 1.0000 - val_loss: 0.5243 - val_accuracy: 0.9151

WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 362/500
11/11 [==============================] - 48s 5s/step - loss: 7.6132e-06 - accuracy: 1.0000 - val_loss: 0.5232 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 363/500
11/11 [==============================] - 48s 5s/step - loss: 5.3917e-05 - accuracy: 1.0000 - val_loss: 0.5207 - val_accuracy: 0.9137
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 364/500
11/11 [==============================] - 48s 5s/step - loss: 7.3221e-07 - accuracy: 1.0000 - val_loss: 0.5209 - val_accuracy: 0.9144
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 365/500
11/11 [==============================] - 48s 5s/step - loss: 4.9085e-07 - accuracy: 1.0000 - val_loss: 0.5205 - val_accuracy: 0.9144
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 366/500
11/11 [==============================] - 48s 5s/step - loss: 1.9069e-06 - accuracy: 1.0000 - val_loss: 0.5183 - val_accuracy: 0.9144
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 367/500
11/11 [==============================] - 48s 5s/step - loss: 6.5984e-07 - accuracy: 1.0000 - val_loss: 0.5176 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 368/500
11/11 [==============================] - 48s 5s/step - loss: 2.5951e-06 - accuracy: 1.0000 - val_loss: 0.5184 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 369/500
11/11 [==============================] - 48s 5s/step - loss: 3.1613e-07 - accuracy: 1.0000 - val_loss: 0.5205 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 370/500
11/11 [==============================] - 48s 5s/step - loss: 6.2066e-07 - accuracy: 1.0000 - val_loss: 0.5207 - val_accuracy: 0.9151
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 371/500
11/11 [==============================] - 48s 5s/step - loss: 1.7584e-06 - accuracy: 1.0000 - val_loss: 0.5198 - val_accuracy: 0.9158
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 372/500
11/11 [==============================] - 48s 5s/step - loss: 4.0600e-07 - accuracy: 1.0000 - val_loss: 0.5206 - val_accuracy: 0.9165
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 373/500
11/11 [==============================] - 48s 5s/step - loss: 1.2697e-06 - accuracy: 1.0000 - val_loss: 0.5203 - val_accuracy: 0.9165
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 374/500
11/11 [==============================] - 48s 5s/step - loss: 1.5311e-06 - accuracy: 1.0000 - val_loss: 0.5200 - val_accuracy: 0.9173
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 375/500
11/11 [==============================] - 48s 5s/step - loss: 2.4605e-06 - accuracy: 1.0000 - val_loss: 0.5204 - val_accuracy: 0.9173
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 376/500
11/11 [==============================] - 48s 5s/step - loss: 1.2662e-06 - accuracy: 1.0000 - val_loss: 0.5204 - val_accuracy: 0.9173
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 377/500
11/11 [==============================] - 48s 5s/step - loss: 4.7025e-07 - accuracy: 1.0000 - val_loss: 0.5211 - val_accuracy: 0.9165
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr

WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 378/500
11/11 [==============================] - 48s 5s/step - loss: 1.2965e-06 - accuracy: 1.0000 - val_loss: 0.5216 - val_accuracy: 0.9165
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 379/500
11/11 [==============================] - 48s 5s/step - loss: 2.2026e-06 - accuracy: 1.0000 - val_loss: 0.5207 - val_accuracy: 0.9173
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 380/500
11/11 [==============================] - 48s 5s/step - loss: 4.2383e-07 - accuracy: 1.0000 - val_loss: 0.5217 - val_accuracy: 0.9173
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 381/500
11/11 [==============================] - 48s 5s/step - loss: 5.1593e-07 - accuracy: 1.0000 - val_loss: 0.5223 - val_accuracy: 0.9173
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 382/500
11/11 [==============================] - 48s 5s/step - loss: 9.2187e-07 - accuracy: 1.0000 - val_loss: 0.5226 - val_accuracy: 0.9180
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 383/500
11/11 [==============================] - 48s 5s/step - loss: 2.1410e-06 - accuracy: 1.0000 - val_loss: 0.5222 - val_accuracy: 0.9180
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 384/500
11/11 [==============================] - 48s 5s/step - loss: 4.4672e-06 - accuracy: 1.0000 - val_loss: 0.5222 - val_accuracy: 0.9180
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 385/500
11/11 [==============================] - 48s 5s/step - loss: 5.2151e-07 - accuracy: 1.0000 - val_loss: 0.5223 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 386/500
11/11 [==============================] - 48s 5s/step - loss: 6.0726e-07 - accuracy: 1.0000 - val_loss: 0.5224 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 387/500
11/11 [==============================] - 48s 5s/step - loss: 5.8815e-07 - accuracy: 1.0000 - val_loss: 0.5227 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 388/500
11/11 [==============================] - 48s 5s/step - loss: 7.7791e-07 - accuracy: 1.0000 - val_loss: 0.5220 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 389/500
11/11 [==============================] - 48s 5s/step - loss: 9.0729e-07 - accuracy: 1.0000 - val_loss: 0.5220 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 390/500
11/11 [==============================] - 48s 5s/step - loss: 8.1939e-07 - accuracy: 1.0000 - val_loss: 0.5229 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 391/500
11/11 [==============================] - 48s 5s/step - loss: 6.6554e-07 - accuracy: 1.0000 - val_loss: 0.5236 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 392/500
11/11 [==============================] - 48s 5s/step - loss: 3.8826e-07 - accuracy: 1.0000 - val_loss: 0.5247 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 393/500
11/11 [==============================] - 48s 5s/step - loss: 2.0856e-06 - accuracy: 1.0000 - val_loss: 0.5247 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 394/500
11/11 [==============================] - 48s 5s/step - loss: 2.2257e-06 - accuracy: 1.0000 - val_loss: 0.5236 - val_accuracy: 0.9194

WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 395/500
11/11 [==============================] - 48s 5s/step - loss: 4.4088e-07 - accuracy: 1.0000 - val_loss: 0.5245 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 396/500
11/11 [==============================] - 48s 5s/step - loss: 6.8623e-07 - accuracy: 1.0000 - val_loss: 0.5246 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 397/500
11/11 [==============================] - 48s 5s/step - loss: 6.9126e-07 - accuracy: 1.0000 - val_loss: 0.5252 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 398/500
11/11 [==============================] - 48s 5s/step - loss: 3.7917e-07 - accuracy: 1.0000 - val_loss: 0.5262 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 399/500
11/11 [==============================] - 48s 5s/step - loss: 4.8347e-07 - accuracy: 1.0000 - val_loss: 0.5256 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 400/500
11/11 [==============================] - 48s 5s/step - loss: 7.1466e-07 - accuracy: 1.0000 - val_loss: 0.5269 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 401/500
11/11 [==============================] - 48s 5s/step - loss: 1.5220e-06 - accuracy: 1.0000 - val_loss: 0.5272 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 402/500
11/11 [==============================] - 48s 5s/step - loss: 8.4245e-07 - accuracy: 1.0000 - val_loss: 0.5264 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 403/500
11/11 [==============================] - 48s 5s/step - loss: 8.7538e-07 - accuracy: 1.0000 - val_loss: 0.5267 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 404/500
11/11 [==============================] - 48s 5s/step - loss: 6.6123e-07 - accuracy: 1.0000 - val_loss: 0.5265 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 405/500
11/11 [==============================] - 48s 5s/step - loss: 4.3822e-07 - accuracy: 1.0000 - val_loss: 0.5277 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 406/500
11/11 [==============================] - 48s 5s/step - loss: 2.6120e-07 - accuracy: 1.0000 - val_loss: 0.5287 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 407/500
11/11 [==============================] - 48s 5s/step - loss: 7.0783e-07 - accuracy: 1.0000 - val_loss: 0.5289 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 408/500
11/11 [==============================] - 48s 5s/step - loss: 7.4408e-07 - accuracy: 1.0000 - val_loss: 0.5290 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 409/500
11/11 [==============================] - 48s 5s/step - loss: 2.0185e-06 - accuracy: 1.0000 - val_loss: 0.5303 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 410/500
11/11 [==============================] - 48s 5s/step - loss: 1.9707e-06 - accuracy: 1.0000 - val_loss: 0.5286 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.

WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 411/500
11/11 [==============================] - 48s 5s/step - loss: 2.5447e-07 - accuracy: 1.0000 - val_loss: 0.5299 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 412/500
11/11 [==============================] - 48s 5s/step - loss: 5.6113e-07 - accuracy: 1.0000 - val_loss: 0.5299 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 413/500
11/11 [==============================] - 48s 5s/step - loss: 1.6477e-06 - accuracy: 1.0000 - val_loss: 0.5291 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 414/500
11/11 [==============================] - 48s 5s/step - loss: 7.6155e-07 - accuracy: 1.0000 - val_loss: 0.5295 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 415/500
11/11 [==============================] - 48s 5s/step - loss: 4.1667e-07 - accuracy: 1.0000 - val_loss: 0.5299 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 416/500
11/11 [==============================] - 48s 5s/step - loss: 6.0425e-07 - accuracy: 1.0000 - val_loss: 0.5303 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 417/500
11/11 [==============================] - 48s 5s/step - loss: 5.4336e-07 - accuracy: 1.0000 - val_loss: 0.5317 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 418/500
11/11 [==============================] - 48s 5s/step - loss: 2.6647e-07 - accuracy: 1.0000 - val_loss: 0.5320 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 419/500
11/11 [==============================] - 48s 5s/step - loss: 5.4032e-07 - accuracy: 1.0000 - val_loss: 0.5337 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 420/500
11/11 [==============================] - 48s 5s/step - loss: 8.1942e-07 - accuracy: 1.0000 - val_loss: 0.5336 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 421/500
11/11 [==============================] - 48s 5s/step - loss: 1.1632e-06 - accuracy: 1.0000 - val_loss: 0.5330 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 422/500
11/11 [==============================] - 48s 5s/step - loss: 2.2085e-07 - accuracy: 1.0000 - val_loss: 0.5338 - val_accuracy: 0.9187
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 423/500
11/11 [==============================] - 48s 5s/step - loss: 4.5920e-07 - accuracy: 1.0000 - val_loss: 0.5321 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 424/500
11/11 [==============================] - 48s 5s/step - loss: 3.9047e-07 - accuracy: 1.0000 - val_loss: 0.5334 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 425/500
11/11 [==============================] - 48s 5s/step - loss: 4.2314e-07 - accuracy: 1.0000 - val_loss: 0.5332 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 426/500
11/11 [==============================] - 48s 5s/step - loss: 1.5860e-06 - accuracy: 1.0000 - val_loss: 0.5336 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 427/500
11/11 [==============================] - 48s 5s/step - loss: 2.2040e-07 - accuracy: 1.0000 - val_loss: 0.5346 - val_accuracy: 0.9194

WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 428/500
11/11 [==============================] - 48s 5s/step - loss: 4.7382e-07 - accuracy: 1.0000 - val_loss: 0.5349 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 429/500
11/11 [==============================] - 48s 5s/step - loss: 1.2307e-06 - accuracy: 1.0000 - val_loss: 0.5350 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 430/500
11/11 [==============================] - 48s 5s/step - loss: 3.3691e-07 - accuracy: 1.0000 - val_loss: 0.5346 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 431/500
11/11 [==============================] - 48s 5s/step - loss: 3.5144e-07 - accuracy: 1.0000 - val_loss: 0.5356 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 432/500
11/11 [==============================] - 48s 5s/step - loss: 3.1910e-07 - accuracy: 1.0000 - val_loss: 0.5370 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 433/500
11/11 [==============================] - 48s 5s/step - loss: 6.2532e-07 - accuracy: 1.0000 - val_loss: 0.5362 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 434/500
11/11 [==============================] - 48s 5s/step - loss: 2.3084e-06 - accuracy: 1.0000 - val_loss: 0.5358 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 435/500
11/11 [==============================] - 48s 5s/step - loss: 3.9048e-07 - accuracy: 1.0000 - val_loss: 0.5353 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 436/500
11/11 [==============================] - 48s 5s/step - loss: 5.3950e-07 - accuracy: 1.0000 - val_loss: 0.5343 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 437/500
11/11 [==============================] - 48s 5s/step - loss: 7.7762e-07 - accuracy: 1.0000 - val_loss: 0.5325 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 438/500
11/11 [==============================] - 48s 5s/step - loss: 3.5751e-07 - accuracy: 1.0000 - val_loss: 0.5331 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 439/500
11/11 [==============================] - 48s 5s/step - loss: 2.9814e-07 - accuracy: 1.0000 - val_loss: 0.5342 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 440/500
11/11 [==============================] - 48s 5s/step - loss: 3.7461e-07 - accuracy: 1.0000 - val_loss: 0.5346 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 441/500
11/11 [==============================] - 48s 5s/step - loss: 9.6157e-07 - accuracy: 1.0000 - val_loss: 0.5339 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 442/500
11/11 [==============================] - 48s 5s/step - loss: 3.2914e-07 - accuracy: 1.0000 - val_loss: 0.5338 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 443/500
11/11 [==============================] - 48s 5s/step - loss: 9.4200e-07 - accuracy: 1.0000 - val_loss: 0.5337 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.

WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 444/500
11/11 [==============================] - 48s 5s/step - loss: 7.3603e-07 - accuracy: 1.0000 - val_loss: 0.5331 - val_accuracy: 0.9194
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 445/500
11/11 [==============================] - 48s 5s/step - loss: 9.0304e-07 - accuracy: 1.0000 - val_loss: 0.5335 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 446/500
11/11 [==============================] - 48s 5s/step - loss: 2.9186e-07 - accuracy: 1.0000 - val_loss: 0.5351 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 447/500
11/11 [==============================] - 48s 5s/step - loss: 9.2830e-07 - accuracy: 1.0000 - val_loss: 0.5352 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 448/500
11/11 [==============================] - 48s 5s/step - loss: 5.6013e-06 - accuracy: 1.0000 - val_loss: 0.5354 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 449/500
11/11 [==============================] - 48s 5s/step - loss: 4.7193e-07 - accuracy: 1.0000 - val_loss: 0.5350 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 450/500
11/11 [==============================] - 48s 5s/step - loss: 2.2070e-07 - accuracy: 1.0000 - val_loss: 0.5353 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 451/500
11/11 [==============================] - 48s 5s/step - loss: 4.7912e-07 - accuracy: 1.0000 - val_loss: 0.5350 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 452/500
11/11 [==============================] - 48s 5s/step - loss: 6.2389e-07 - accuracy: 1.0000 - val_loss: 0.5367 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 453/500
11/11 [==============================] - 48s 5s/step - loss: 3.5580e-07 - accuracy: 1.0000 - val_loss: 0.5367 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 454/500
11/11 [==============================] - 48s 5s/step - loss: 2.3984e-07 - accuracy: 1.0000 - val_loss: 0.5376 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 455/500
11/11 [==============================] - 48s 5s/step - loss: 3.7156e-07 - accuracy: 1.0000 - val_loss: 0.5381 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 456/500
11/11 [==============================] - 48s 5s/step - loss: 9.6423e-07 - accuracy: 1.0000 - val_loss: 0.5375 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 457/500
11/11 [==============================] - 48s 5s/step - loss: 3.4821e-07 - accuracy: 1.0000 - val_loss: 0.5371 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 458/500
11/11 [==============================] - 48s 5s/step - loss: 4.4583e-07 - accuracy: 1.0000 - val_loss: 0.5373 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 459/500
11/11 [==============================] - 48s 5s/step - loss: 5.1917e-07 - accuracy: 1.0000 - val_loss: 0.5377 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 460/500
11/11 [==============================] - 48s 5s/step - loss: 2.4746e-07 - accuracy: 1.0000 - val_loss: 0.5382 - val_accuracy: 0.9201

WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 461/500
11/11 [==============================] - 48s 5s/step - loss: 4.1043e-07 - accuracy: 1.0000 - val_loss: 0.5379 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 462/500
11/11 [==============================] - 48s 5s/step - loss: 5.8819e-07 - accuracy: 1.0000 - val_loss: 0.5390 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 463/500
11/11 [==============================] - 48s 5s/step - loss: 1.4723e-07 - accuracy: 1.0000 - val_loss: 0.5404 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 464/500
11/11 [==============================] - 48s 5s/step - loss: 1.1876e-06 - accuracy: 1.0000 - val_loss: 0.5402 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 465/500
11/11 [==============================] - 48s 5s/step - loss: 3.9789e-07 - accuracy: 1.0000 - val_loss: 0.5396 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 466/500
11/11 [==============================] - 48s 5s/step - loss: 2.1200e-07 - accuracy: 1.0000 - val_loss: 0.5393 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 467/500
11/11 [==============================] - 48s 5s/step - loss: 3.4844e-07 - accuracy: 1.0000 - val_loss: 0.5401 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 468/500
11/11 [==============================] - 48s 5s/step - loss: 3.0418e-06 - accuracy: 1.0000 - val_loss: 0.5393 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 469/500
11/11 [==============================] - 48s 5s/step - loss: 5.4490e-07 - accuracy: 1.0000 - val_loss: 0.5400 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 470/500
11/11 [==============================] - 48s 5s/step - loss: 2.1797e-07 - accuracy: 1.0000 - val_loss: 0.5412 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 471/500
11/11 [==============================] - 48s 5s/step - loss: 7.1436e-07 - accuracy: 1.0000 - val_loss: 0.5413 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 472/500
11/11 [==============================] - 48s 5s/step - loss: 3.8666e-06 - accuracy: 1.0000 - val_loss: 0.5425 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 473/500
11/11 [==============================] - 48s 5s/step - loss: 1.9029e-07 - accuracy: 1.0000 - val_loss: 0.5439 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 474/500
11/11 [==============================] - 48s 5s/step - loss: 3.9433e-07 - accuracy: 1.0000 - val_loss: 0.5428 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 475/500
11/11 [==============================] - 48s 5s/step - loss: 2.3781e-07 - accuracy: 1.0000 - val_loss: 0.5438 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 476/500
11/11 [==============================] - 48s 5s/step - loss: 6.9604e-07 - accuracy: 1.0000 - val_loss: 0.5421 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.

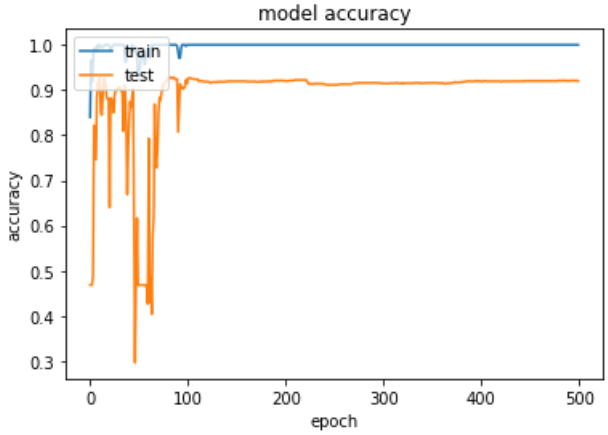
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 477/500
11/11 [==============================] - 48s 5s/step - loss: 2.3353e-07 - accuracy: 1.0000 - val_loss: 0.5434 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 478/500
11/11 [==============================] - 48s 5s/step - loss: 2.9916e-07 - accuracy: 1.0000 - val_loss: 0.5439 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 479/500
11/11 [==============================] - 48s 5s/step - loss: 2.2950e-07 - accuracy: 1.0000 - val_loss: 0.5439 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 480/500
11/11 [==============================] - 48s 5s/step - loss: 4.8131e-07 - accuracy: 1.0000 - val_loss: 0.5427 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 481/500
11/11 [==============================] - 48s 5s/step - loss: 5.4018e-07 - accuracy: 1.0000 - val_loss: 0.5432 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 482/500
11/11 [==============================] - 48s 5s/step - loss: 4.2019e-07 - accuracy: 1.0000 - val_loss: 0.5426 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 483/500
11/11 [==============================] - 48s 5s/step - loss: 6.5261e-07 - accuracy: 1.0000 - val_loss: 0.5423 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 484/500
11/11 [==============================] - 48s 5s/step - loss: 5.1487e-07 - accuracy: 1.0000 - val_loss: 0.5410 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 485/500
11/11 [==============================] - 48s 5s/step - loss: 7.6379e-07 - accuracy: 1.0000 - val_loss: 0.5415 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 486/500
11/11 [==============================] - 48s 5s/step - loss: 4.2478e-07 - accuracy: 1.0000 - val_loss: 0.5427 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 487/500
11/11 [==============================] - 48s 5s/step - loss: 2.9307e-07 - accuracy: 1.0000 - val_loss: 0.5435 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 488/500
11/11 [==============================] - 48s 5s/step - loss: 1.3381e-07 - accuracy: 1.0000 - val_loss: 0.5447 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 489/500
11/11 [==============================] - 48s 5s/step - loss: 1.9315e-06 - accuracy: 1.0000 - val_loss: 0.5444 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 490/500
11/11 [==============================] - 48s 5s/step - loss: 2.2928e-07 - accuracy: 1.0000 - val_loss: 0.5456 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 491/500
11/11 [==============================] - 48s 5s/step - loss: 4.5991e-07 - accuracy: 1.0000 - val_loss: 0.5455 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 492/500
11/11 [==============================] - 48s 5s/step - loss: 2.9083e-07 - accuracy: 1.0000 - val_loss: 0.5442 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accuracy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 493/500
11/11 [==============================] - 48s 5s/step - loss: 2.2099e-07 - accuracy: 1.0000 - val_loss: 0.5449 - val_accuracy: 0.9209

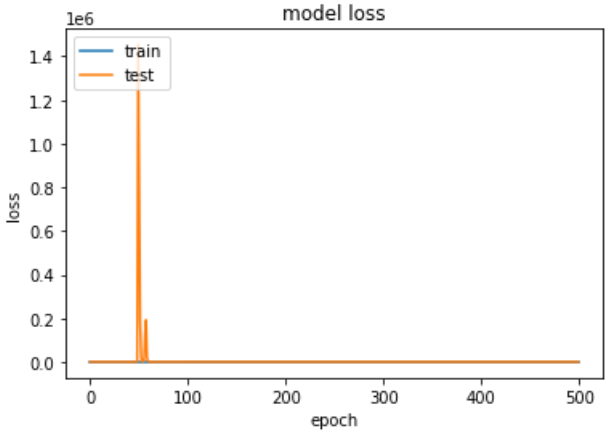
```
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 494/500
11/11 [==============================] - 48s 5s/step - loss: 2.1240e-06 - accuracy: 1.0000 - val_loss: 0.5431 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 495/500
11/11 [==============================] - 48s 5s/step - loss: 4.9909e-07 - accuracy: 1.0000 - val_loss: 0.5443 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 496/500
11/11 [==============================] - 48s 5s/step - loss: 1.2001e-06 - accuracy: 1.0000 - val_loss: 0.5447 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 497/500
11/11 [==============================] - 48s 5s/step - loss: 3.5942e-07 - accuracy: 1.0000 - val_loss: 0.5444 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 498/500
11/11 [==============================] - 48s 5s/step - loss: 4.1008e-07 - accuracy: 1.0000 - val_loss: 0.5449 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 499/500
11/11 [==============================] - 48s 5s/step - loss: 9.2920e-07 - accuracy: 1.0000 - val_loss: 0.5455 - val_accuracy: 0.9209
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
Epoch 500/500
11/11 [==============================] - 48s 5s/step - loss: 2.5587e-07 - accuracy: 1.0000 - val_loss: 0.5468 - val_accuracy: 0.9201
WARNING:tensorflow:Learning rate reduction is conditioned on metric `val_acc` which is not available. Available metrics are: loss,accuracy,val_loss,val_accu
racy,lr
WARNING:tensorflow:Can save best model only with val_acc available, skipping.
```

In [210]:

```
import matplotlib.pyplot as plt

plt.plot(history.history['accuracy'])
plt.plot(history.history['val_accuracy'])
plt.title('model accuracy')
plt.ylabel('accuracy')
plt.xlabel('epoch')
plt.legend(['train', 'test'], loc='upper left')
plt.show()
# summarize history for loss
plt.plot(history.history['loss'])
plt.plot(history.history['val_loss'])
plt.title('model loss')
plt.ylabel('loss')
plt.xlabel('epoch')
plt.legend(['train', 'test'], loc='upper left')
plt.show()
```





In [211]:

```
from sklearn.metrics import confusion_matrix
pred = model.predict(X_test)
pred = np.argmax(pred,axis = 1)
y_true = np.argmax(y_test,axis = 1)
```

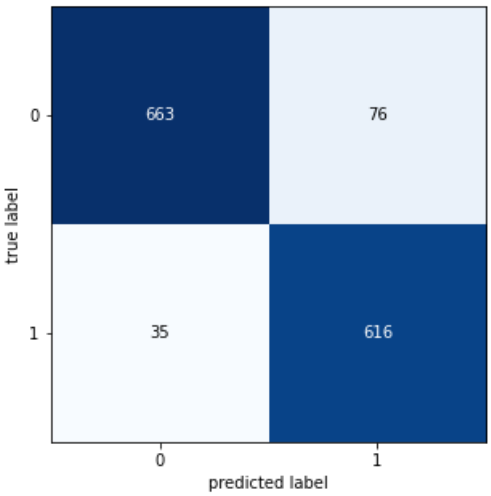
In [212]:

```
print(y_true)
```

```
[0 0 0 ... 1 1 1]
```

In [213]:

```
CM = confusion_matrix(y_true, pred)
from mlxtend.plotting import plot_confusion_matrix
fig, ax = plot_confusion_matrix(conf_mat=CM ,  figsize=(5, 5))
plt.show()
```



In [214]:

```
from sklearn.metrics import classification_report, confusion_matrix
print(confusion_matrix(y_true, pred))
print(classification_report(y_true, pred))
```

```
[[663  76]
 [ 35 616]]
              precision    recall  f1-score   support

           0       0.95      0.90      0.92       739
           1       0.89      0.95      0.92       651

    accuracy                           0.92      1390
   macro avg       0.92      0.92      0.92      1390
weighted avg       0.92      0.92      0.92      1390
```

In [ ]:

In [ ]: