

IBM Project Name: Real-Time Communication System Powered by AI for Specially Abled

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```
import numpy as np

from tensorflow.keras.models import load_model from tensorflow.keras.preprocessing import
image from keras.models import Sequential from keras.layers import Dense from keras.layers
import Convolution2D from keras.layers import MaxPooling2D from keras.layers import
Dropout from keras.layers import Flatten model=Sequential()
model.add(Convolution2D(32,(3,3),activation="relu",input_shape=(64,64,3)))
model.add(MaxPooling2D(pool_size=(2,2))) model.add(Flatten())
model.add(Dense(200,activation='relu')) model.add(Dense(9,activation="softmax"))
model.compile(loss="categorical_crossentropy",metrics=["accuracy"],optimizer='adam')

len(x_train)

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NameError                                Traceback (most recent call last)

in

----> 1 len(x_train)

NameError: name 'x_train' is not defined

len(x_test)

model.fit(x_train,epochs=10,validation_data=x_test,steps_per_epoch=len(x_train)//10,validation
_steps=len(x_test))

model.save("aslpng.h5") Testing

the model
```

```

from keras.models import load_model
import numpy as np

import cv2
from tensorflow.keras.models import load_model
from tensorflow.keras.preprocessing import image

import numpy as np

model=load_model('asl_model_84_54.h5')

img=image.load_img(r'E:\Projects\SmartBridge\ModelGen\Dataset\test_set\D\2.png',
                    target_size=(64,64))

model=load_model("aslpng.h5")

img = image.load_img(r"/content/drive/MyDrive/IBM project/test_set/D/10.png",target_size=(64,64))

img x =
image.img_to_array(img) x
x.shape x =
np.expand_dims(x,axis=0)
x.shape pred =
model.predict(x) pred

class_name=["A","B","C","D","E","F","G","H","I"]

pred_id = pred.argmax(axis=1)[0]
pred_id print("the
alphabet is ",str(class_name[pred_id]))

```