

COMPILE THE MODEL

Team ID : PNT2022TMID06310

Title: Real-Time Communication System Powered by AI for Specially Abled

```
from keras.preprocessing.image import ImageDataGenerator

train_datagen=ImageDataGenerator(rescale=1./255,shear_range=0.2,zoom_range=0.2,horizontal_flip=T

rue)

test_datagen=ImageDataGenerator(rescale=1./255)

x_train =

train_datagen.flow_from_directory('content/Dataset/training_set',target_size=(64,64),batch_size=300,

class_mode='categorical',color_mode='grayscale')

Found 15750 images belonging to 9 classes.

x_test =

test_datagen.flow_from_directory('content/Dataset/test_set',target_size=(64,64),batch_size=300,class

_mode='categorical',color_mode='grayscale')

Found 2250 images belonging to 9 classes.

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),input_shape=(64,64,1), activation='relu'))

#no. of feature detectors, size of feature detector, image size, activation function
```

```
model.add(MaxPooling2D(pool_size=(2,2)))  
model.add(Flatten())  
model.add(Dense(units=512, activation = '&#39;relu&#39;))  
model.add(Dense(units=9, activation = '&#39;softmax&#39;))  
model.compile(loss='categorical_crossentropy', optimizer = 'adam', metrics =  
['accuracy'])
```

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