Model Building

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from tensorflow.keras.models import Sequential
from tensorflow.keras.layers import Convolution2D,MaxPooling2D,
     Flatten,Dense
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(300,activation='relu')) #hiddenlayer 1
model.add(Dense(150,activation='relu')) #hiddenlayer 2
model.add(Dense(9,activation='softmax'))
model.compile(optimizer='adam',loss='categorical_crossentropy',
           metrics=['accuracy'])
from keras.callbacks import EarlyStopping, ReduceLROnPlateau
early_stopping = EarlyStopping(monitor='val_accuracy',
                        patience=5)
reduce_lr = ReduceLROnPlateau(monitor='val_accuracy',
                        patience=5,
                        factor=0.5,min_lr=0.00001)
callback = [reduce_lr,early_stopping]

model.fit_generator(xtrain,
                    steps_per_epoch=len(xtrain),
                    epochs=100,
                    callbacks=callback,
                    validation_data=xtest,
                    validation_steps=len(xtest))
model.save('aslpng1.h5')
```