

Layer (type)	Output Shape	Param #	Connected to
input_4 (InputLayer)	(None, 224, 224, 3)	0	
conv2d_173 (Conv2D)	(None, 112, 112, 64)	9472	input_4[0][0]
batch_normalization_v1_174 (Batch Normalization)	(None, 112, 112, 64)	256	conv2d_173[0][0]
activation_167 (Activation)	(None, 112, 112, 64)	0	batch_normalization_v1_174[0][0]
max_pooling2d_3 (MaxPooling2D)	(None, 55, 55, 64)	0	activation_167[0][0]
conv2d_175 (Conv2D)	(None, 55, 55, 64)	4160	max_pooling2d_3[0][0]
batch_normalization_v1_176 (Batch Normalization)	(None, 55, 55, 64)	256	conv2d_175[0][0]
activation_168 (Activation)	(None, 55, 55, 64)	0	batch_normalization_v1_176[0][0]
conv2d_176 (Conv2D)	(None, 55, 55, 64)	36928	activation_168[0][0]
batch_normalization_v1_177 (Batch Normalization)	(None, 55, 55, 64)	256	conv2d_176[0][0]
activation_169 (Activation)	(None, 55, 55, 64)	0	batch_normalization_v1_177[0][0]
conv2d_177 (Conv2D)	(None, 55, 55, 256)	16640	activation_169[0][0]
conv2d_174 (Conv2D)	(None, 55, 55, 256)	16640	max_pooling2d_3[0][0]
batch_normalization_v1_178 (Batch Normalization)	(None, 55, 55, 256)	1024	conv2d_177[0][0]
batch_normalization_v1_175 (Batch Normalization)	(None, 55, 55, 256)	1024	conv2d_174[0][0]
add_32 (Add)	(None, 55, 55, 256)	0	batch_normalization_v1_178[0][0] batch_normalization_v1_175[0][0]
activation_170 (Activation)	(None, 55, 55, 256)	0	add_32[0][0]
conv2d_178 (Conv2D)	(None, 55, 55, 64)	16448	activation_170[0][0]
batch_normalization_v1_179 (Batch Normalization)	(None, 55, 55, 64)	256	conv2d_178[0][0]
activation_171 (Activation)	(None, 55, 55, 64)	0	batch_normalization_v1_179[0][0]
conv2d_179 (Conv2D)	(None, 55, 55, 64)	36928	activation_171[0][0]
batch_normalization_v1_180 (Batch Normalization)	(None, 55, 55, 64)	256	conv2d_179[0][0]
activation_172 (Activation)	(None, 55, 55, 64)	0	batch_normalization_v1_180[0][0]
conv2d_180 (Conv2D)	(None, 55, 55, 256)	16640	activation_172[0][0]
batch_normalization_v1_181 (Batch Normalization)	(None, 55, 55, 256)	1024	conv2d_180[0][0]
add_33 (Add)	(None, 55, 55, 256)	0	batch_normalization_v1_181[0][0] activation_170[0][0]
activation_173 (Activation)	(None, 55, 55, 256)	0	add_33[0][0]
conv2d_181 (Conv2D)	(None, 55, 55, 64)	16448	activation_173[0][0]
batch_normalization_v1_182 (Batch Normalization)	(None, 55, 55, 64)	256	conv2d_181[0][0]
activation_174 (Activation)	(None, 55, 55, 64)	0	batch_normalization_v1_182[0][0]
conv2d_182 (Conv2D)	(None, 55, 55, 64)	36928	activation_174[0][0]
batch_normalization_v1_183 (Batch Normalization)	(None, 55, 55, 64)	256	conv2d_182[0][0]
activation_175 (Activation)	(None, 55, 55, 64)	0	batch_normalization_v1_183[0][0]
conv2d_183 (Conv2D)	(None, 55, 55, 256)	16640	activation_175[0][0]
batch_normalization_v1_184 (Batch Normalization)	(None, 55, 55, 256)	1024	conv2d_183[0][0]
add_34 (Add)	(None, 55, 55, 256)	0	batch_normalization_v1_184[0][0] activation_173[0][0]
activation_176 (Activation)	(None, 55, 55, 256)	0	add_34[0][0]
conv2d_185 (Conv2D)	(None, 28, 28, 128)	32896	activation_176[0][0]
batch_normalization_v1_186 (Batch Normalization)	(None, 28, 28, 128)	512	conv2d_185[0][0]
activation_177 (Activation)	(None, 28, 28, 128)	0	batch_normalization_v1_186[0][0]

conv2d_186 (Conv2D)	(None, 28, 28, 128)	147584	activation_177[0][0]
batch_normalization_v1_187 (Batch Normalization)	(None, 28, 28, 128)	512	conv2d_186[0][0]
activation_178 (Activation)	(None, 28, 28, 128)	0	batch_normalization_v1_187[0][0]
conv2d_187 (Conv2D)	(None, 28, 28, 512)	66048	activation_178[0][0]
conv2d_184 (Conv2D)	(None, 28, 28, 512)	131584	activation_176[0][0]
batch_normalization_v1_188 (Batch Normalization)	(None, 28, 28, 512)	2048	conv2d_187[0][0]
batch_normalization_v1_185 (Batch Normalization)	(None, 28, 28, 512)	2048	conv2d_184[0][0]
add_35 (Add)	(None, 28, 28, 512)	0	batch_normalization_v1_188[0][0] batch_normalization_v1_185[0][0]
activation_179 (Activation)	(None, 28, 28, 512)	0	add_35[0][0]
conv2d_188 (Conv2D)	(None, 28, 28, 128)	65664	activation_179[0][0]
batch_normalization_v1_189 (Batch Normalization)	(None, 28, 28, 128)	512	conv2d_188[0][0]
activation_180 (Activation)	(None, 28, 28, 128)	0	batch_normalization_v1_189[0][0]
conv2d_189 (Conv2D)	(None, 28, 28, 128)	147584	activation_180[0][0]
batch_normalization_v1_190 (Batch Normalization)	(None, 28, 28, 128)	512	conv2d_189[0][0]
activation_181 (Activation)	(None, 28, 28, 128)	0	batch_normalization_v1_190[0][0]
conv2d_190 (Conv2D)	(None, 28, 28, 512)	66048	activation_181[0][0]
batch_normalization_v1_191 (Batch Normalization)	(None, 28, 28, 512)	2048	conv2d_190[0][0]
add_36 (Add)	(None, 28, 28, 512)	0	batch_normalization_v1_191[0][0] activation_179[0][0]
activation_182 (Activation)	(None, 28, 28, 512)	0	add_36[0][0]
conv2d_191 (Conv2D)	(None, 28, 28, 128)	65664	activation_182[0][0]
batch_normalization_v1_192 (Batch Normalization)	(None, 28, 28, 128)	512	conv2d_191[0][0]
activation_183 (Activation)	(None, 28, 28, 128)	0	batch_normalization_v1_192[0][0]
conv2d_192 (Conv2D)	(None, 28, 28, 128)	147584	activation_183[0][0]
batch_normalization_v1_193 (Batch Normalization)	(None, 28, 28, 128)	512	conv2d_192[0][0]
activation_184 (Activation)	(None, 28, 28, 128)	0	batch_normalization_v1_193[0][0]
conv2d_193 (Conv2D)	(None, 28, 28, 512)	66048	activation_184[0][0]
batch_normalization_v1_194 (Batch Normalization)	(None, 28, 28, 512)	2048	conv2d_193[0][0]
add_37 (Add)	(None, 28, 28, 512)	0	batch_normalization_v1_194[0][0] activation_182[0][0]
activation_185 (Activation)	(None, 28, 28, 512)	0	add_37[0][0]
conv2d_194 (Conv2D)	(None, 28, 28, 128)	65664	activation_185[0][0]
batch_normalization_v1_195 (Batch Normalization)	(None, 28, 28, 128)	512	conv2d_194[0][0]
activation_186 (Activation)	(None, 28, 28, 128)	0	batch_normalization_v1_195[0][0]
conv2d_195 (Conv2D)	(None, 28, 28, 128)	147584	activation_186[0][0]
batch_normalization_v1_196 (Batch Normalization)	(None, 28, 28, 128)	512	conv2d_195[0][0]
activation_187 (Activation)	(None, 28, 28, 128)	0	batch_normalization_v1_196[0][0]
conv2d_196 (Conv2D)	(None, 28, 28, 512)	66048	activation_187[0][0]
batch_normalization_v1_197 (Batch Normalization)	(None, 28, 28, 512)	2048	conv2d_196[0][0]
add_38 (Add)	(None, 28, 28, 512)	0	batch_normalization_v1_197[0][0] activation_185[0][0]
activation_188 (Activation)	(None, 28, 28, 512)	0	add_38[0][0]
conv2d_198 (Conv2D)	(None, 14, 14, 256)	131328	activation_188[0][0]
batch_normalization_v1_199 (Batch Normalization)	(None, 14, 14, 256)	1024	conv2d_198[0][0]

activation_189 (Activation)	(None, 14, 14, 256)	0	batch_normalization_v1_199[0][0]
conv2d_199 (Conv2D)	(None, 14, 14, 256)	590080	activation_189[0][0]
batch_normalization_v1_200 (Bat	(None, 14, 14, 256)	1024	conv2d_199[0][0]
activation_190 (Activation)	(None, 14, 14, 256)	0	batch_normalization_v1_200[0][0]
conv2d_200 (Conv2D)	(None, 14, 14, 1024)	263168	activation_190[0][0]
conv2d_197 (Conv2D)	(None, 14, 14, 1024)	525312	activation_188[0][0]
batch_normalization_v1_201 (Bat	(None, 14, 14, 1024)	4096	conv2d_200[0][0]
batch_normalization_v1_198 (Bat	(None, 14, 14, 1024)	4096	conv2d_197[0][0]
add_39 (Add)	(None, 14, 14, 1024)	0	batch_normalization_v1_201[0][0] batch_normalization_v1_198[0][0]
activation_191 (Activation)	(None, 14, 14, 1024)	0	add_39[0][0]
conv2d_201 (Conv2D)	(None, 14, 14, 256)	262400	activation_191[0][0]
batch_normalization_v1_202 (Bat	(None, 14, 14, 256)	1024	conv2d_201[0][0]
activation_192 (Activation)	(None, 14, 14, 256)	0	batch_normalization_v1_202[0][0]
conv2d_202 (Conv2D)	(None, 14, 14, 256)	590080	activation_192[0][0]
batch_normalization_v1_203 (Bat	(None, 14, 14, 256)	1024	conv2d_202[0][0]
activation_193 (Activation)	(None, 14, 14, 256)	0	batch_normalization_v1_203[0][0]
conv2d_203 (Conv2D)	(None, 14, 14, 1024)	263168	activation_193[0][0]
batch_normalization_v1_204 (Bat	(None, 14, 14, 1024)	4096	conv2d_203[0][0]
add_40 (Add)	(None, 14, 14, 1024)	0	batch_normalization_v1_204[0][0] activation_191[0][0]
activation_194 (Activation)	(None, 14, 14, 1024)	0	add_40[0][0]
conv2d_204 (Conv2D)	(None, 14, 14, 256)	262400	activation_194[0][0]
batch_normalization_v1_205 (Bat	(None, 14, 14, 256)	1024	conv2d_204[0][0]
activation_195 (Activation)	(None, 14, 14, 256)	0	batch_normalization_v1_205[0][0]
conv2d_205 (Conv2D)	(None, 14, 14, 256)	590080	activation_195[0][0]
batch_normalization_v1_206 (Bat	(None, 14, 14, 256)	1024	conv2d_205[0][0]
activation_196 (Activation)	(None, 14, 14, 256)	0	batch_normalization_v1_206[0][0]
conv2d_206 (Conv2D)	(None, 14, 14, 1024)	263168	activation_196[0][0]
batch_normalization_v1_207 (Bat	(None, 14, 14, 1024)	4096	conv2d_206[0][0]
add_41 (Add)	(None, 14, 14, 1024)	0	batch_normalization_v1_207[0][0] activation_194[0][0]
activation_197 (Activation)	(None, 14, 14, 1024)	0	add_41[0][0]
conv2d_207 (Conv2D)	(None, 14, 14, 256)	262400	activation_197[0][0]
batch_normalization_v1_208 (Bat	(None, 14, 14, 256)	1024	conv2d_207[0][0]
activation_198 (Activation)	(None, 14, 14, 256)	0	batch_normalization_v1_208[0][0]
conv2d_208 (Conv2D)	(None, 14, 14, 256)	590080	activation_198[0][0]
batch_normalization_v1_209 (Bat	(None, 14, 14, 256)	1024	conv2d_208[0][0]
activation_199 (Activation)	(None, 14, 14, 256)	0	batch_normalization_v1_209[0][0]
conv2d_209 (Conv2D)	(None, 14, 14, 1024)	263168	activation_199[0][0]
batch_normalization_v1_210 (Bat	(None, 14, 14, 1024)	4096	conv2d_209[0][0]
add_42 (Add)	(None, 14, 14, 1024)	0	batch_normalization_v1_210[0][0] activation_197[0][0]
activation_200 (Activation)	(None, 14, 14, 1024)	0	add_42[0][0]
conv2d_210 (Conv2D)	(None, 14, 14, 256)	262400	activation_200[0][0]

batch_normalization_v1_211 (Bat	(None, 14, 14, 256)	1024	conv2d_210[0][0]
activation_201 (Activation)	(None, 14, 14, 256)	0	batch_normalization_v1_211[0][0]
conv2d_211 (Conv2D)	(None, 14, 14, 256)	590080	activation_201[0][0]
batch_normalization_v1_212 (Bat	(None, 14, 14, 256)	1024	conv2d_211[0][0]
activation_202 (Activation)	(None, 14, 14, 256)	0	batch_normalization_v1_212[0][0]
conv2d_212 (Conv2D)	(None, 14, 14, 1024)	263168	activation_202[0][0]
batch_normalization_v1_213 (Bat	(None, 14, 14, 1024)	4096	conv2d_212[0][0]
add_43 (Add)	(None, 14, 14, 1024)	0	batch_normalization_v1_213[0][0] activation_200[0][0]
activation_203 (Activation)	(None, 14, 14, 1024)	0	add_43[0][0]
conv2d_213 (Conv2D)	(None, 14, 14, 256)	262400	activation_203[0][0]
batch_normalization_v1_214 (Bat	(None, 14, 14, 256)	1024	conv2d_213[0][0]
activation_204 (Activation)	(None, 14, 14, 256)	0	batch_normalization_v1_214[0][0]
conv2d_214 (Conv2D)	(None, 14, 14, 256)	590080	activation_204[0][0]
batch_normalization_v1_215 (Bat	(None, 14, 14, 256)	1024	conv2d_214[0][0]
activation_205 (Activation)	(None, 14, 14, 256)	0	batch_normalization_v1_215[0][0]
conv2d_215 (Conv2D)	(None, 14, 14, 1024)	263168	activation_205[0][0]
batch_normalization_v1_216 (Bat	(None, 14, 14, 1024)	4096	conv2d_215[0][0]
add_44 (Add)	(None, 14, 14, 1024)	0	batch_normalization_v1_216[0][0] activation_203[0][0]
activation_206 (Activation)	(None, 14, 14, 1024)	0	add_44[0][0]
conv2d_217 (Conv2D)	(None, 7, 7, 512)	524800	activation_206[0][0]
batch_normalization_v1_218 (Bat	(None, 7, 7, 512)	2048	conv2d_217[0][0]
activation_207 (Activation)	(None, 7, 7, 512)	0	batch_normalization_v1_218[0][0]
conv2d_218 (Conv2D)	(None, 7, 7, 512)	2359808	activation_207[0][0]
batch_normalization_v1_219 (Bat	(None, 7, 7, 512)	2048	conv2d_218[0][0]
activation_208 (Activation)	(None, 7, 7, 512)	0	batch_normalization_v1_219[0][0]
conv2d_219 (Conv2D)	(None, 7, 7, 2048)	1050624	activation_208[0][0]
conv2d_216 (Conv2D)	(None, 7, 7, 2048)	2099200	activation_206[0][0]
batch_normalization_v1_220 (Bat	(None, 7, 7, 2048)	8192	conv2d_219[0][0]
batch_normalization_v1_217 (Bat	(None, 7, 7, 2048)	8192	conv2d_216[0][0]
add_45 (Add)	(None, 7, 7, 2048)	0	batch_normalization_v1_220[0][0] batch_normalization_v1_217[0][0]
activation_209 (Activation)	(None, 7, 7, 2048)	0	add_45[0][0]
conv2d_220 (Conv2D)	(None, 7, 7, 512)	1049088	activation_209[0][0]
batch_normalization_v1_221 (Bat	(None, 7, 7, 512)	2048	conv2d_220[0][0]
activation_210 (Activation)	(None, 7, 7, 512)	0	batch_normalization_v1_221[0][0]
conv2d_221 (Conv2D)	(None, 7, 7, 512)	2359808	activation_210[0][0]
batch_normalization_v1_222 (Bat	(None, 7, 7, 512)	2048	conv2d_221[0][0]
activation_211 (Activation)	(None, 7, 7, 512)	0	batch_normalization_v1_222[0][0]
conv2d_222 (Conv2D)	(None, 7, 7, 2048)	1050624	activation_211[0][0]
batch_normalization_v1_223 (Bat	(None, 7, 7, 2048)	8192	conv2d_222[0][0]
add_46 (Add)	(None, 7, 7, 2048)	0	batch_normalization_v1_223[0][0] activation_209[0][0]
activation_212 (Activation)	(None, 7, 7, 2048)	0	add_46[0][0]

conv2d_223 (Conv2D)	(None, 7, 7, 512)	1049088	activation_212[0][0]
batch_normalization_v1_224 (Batch Normalization)	(None, 7, 7, 512)	2048	conv2d_223[0][0]
activation_213 (Activation)	(None, 7, 7, 512)	0	batch_normalization_v1_224[0][0]
conv2d_224 (Conv2D)	(None, 7, 7, 512)	2359808	activation_213[0][0]
batch_normalization_v1_225 (Batch Normalization)	(None, 7, 7, 512)	2048	conv2d_224[0][0]
activation_214 (Activation)	(None, 7, 7, 512)	0	batch_normalization_v1_225[0][0]
conv2d_225 (Conv2D)	(None, 7, 7, 2048)	1050624	activation_214[0][0]
batch_normalization_v1_226 (Batch Normalization)	(None, 7, 7, 2048)	8192	conv2d_225[0][0]
add_47 (Add)	(None, 7, 7, 2048)	0	batch_normalization_v1_226[0][0] activation_212[0][0]
activation_215 (Activation)	(None, 7, 7, 2048)	0	add_47[0][0]
global_avg_pooling (Global Average Pooling)	(None, 2048)	0	activation_215[0][0]
dense_2 (Dense)	(None, 5)	10245	global_avg_pooling[0][0]
activation_216 (Activation)	(None, 5)	0	dense_2[0][0]
=====			
Total params: 23,597,957			
Trainable params: 23,544,837			
Non-trainable params: 53,120			

```

Using Enhanced Data Generation
Found 24216 images belonging to 5 classes.
Found 6063 images belonging to 5 classes.
JSON Mapping for the model classes saved to /content/drive/My Drive/images/json/model_class.json
Number of experiments (Epochs) : 30
Epoch 1/30
190/190 [=====] - 55s 290ms/step - loss: 1.5384 - acc: 0.3152

Epoch 00001: saving model to /content/drive/My Drive/images/models/model_ex-001_acc-0.315190.h5
757/757 [=====] - 858s 1s/step - loss: 1.7250 - acc: 0.2820 - val_loss: 1.5384 - val_acc: 0.3152
Epoch 2/30
190/190 [=====] - 52s 274ms/step - loss: 7.7936 - acc: 0.2680

Epoch 00002: saving model to /content/drive/My Drive/images/models/model_ex-002_acc-0.268019.h5
757/757 [=====] - 740s 978ms/step - loss: 1.5739 - acc: 0.2964 - val_loss: 7.7936 - val_acc: 0.2680
Epoch 3/30
190/190 [=====] - 52s 273ms/step - loss: 1.5579 - acc: 0.3314

Epoch 00003: saving model to /content/drive/My Drive/images/models/model_ex-003_acc-0.331354.h5
757/757 [=====] - 740s 977ms/step - loss: 1.5311 - acc: 0.3219 - val_loss: 1.5579 - val_acc: 0.3314
Epoch 4/30
190/190 [=====] - 52s 272ms/step - loss: 1.7354 - acc: 0.3122

Epoch 00004: saving model to /content/drive/My Drive/images/models/model_ex-004_acc-0.312222.h5
757/757 [=====] - 742s 980ms/step - loss: 1.3698 - acc: 0.4275 - val_loss: 1.7354 - val_acc: 0.3122
Epoch 5/30
190/190 [=====] - 52s 272ms/step - loss: 1.8187 - acc: 0.3549

Epoch 00005: saving model to /content/drive/My Drive/images/models/model_ex-005_acc-0.354940.h5
757/757 [=====] - 741s 979ms/step - loss: 1.1566 - acc: 0.5303 - val_loss: 1.8187 - val_acc: 0.3549
Epoch 6/30
190/190 [=====] - 52s 276ms/step - loss: 1.2097 - acc: 0.5359

Epoch 00006: saving model to /content/drive/My Drive/images/models/model_ex-006_acc-0.535873.h5
757/757 [=====] - 750s 991ms/step - loss: 1.0431 - acc: 0.5809 - val_loss: 1.2097 - val_acc: 0.5359
Epoch 7/30
190/190 [=====] - 52s 275ms/step - loss: 1.0666 - acc: 0.5702

Epoch 00007: saving model to /content/drive/My Drive/images/models/model_ex-007_acc-0.570180.h5
757/757 [=====] - 748s 989ms/step - loss: 0.9671 - acc: 0.6126 - val_loss: 1.0666 - val_acc: 0.5702
Epoch 8/30
190/190 [=====] - 52s 272ms/step - loss: 1.0312 - acc: 0.5962

Epoch 00008: saving model to /content/drive/My Drive/images/models/model_ex-008_acc-0.596240.h5
757/757 [=====] - 748s 988ms/step - loss: 0.9168 - acc: 0.6376 - val_loss: 1.0312 - val_acc: 0.5962
Epoch 9/30
190/190 [=====] - 52s 272ms/step - loss: 0.9350 - acc: 0.6431

Epoch 00009: saving model to /content/drive/My Drive/images/models/model_ex-009_acc-0.643081.h5
757/757 [=====] - 747s 986ms/step - loss: 0.8812 - acc: 0.6562 - val_loss: 0.9350 - val_acc: 0.6431
Epoch 10/30
190/190 [=====] - 52s 275ms/step - loss: 0.9207 - acc: 0.6391

Epoch 00010: saving model to /content/drive/My Drive/images/models/model_ex-010_acc-0.639123.h5

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757/757 [=====] - 750s 991ms/step - loss: 0.8439 - acc: 0.6704 - val_loss: 0.9207 - val_acc: 0.6391
Epoch 11/30
190/190 [=====] - 52s 273ms/step - loss: 0.9730 - acc: 0.6220

Epoch 00011: saving model to /content/drive/My Drive/images/models/model_ex-011_acc-0.621969.h5
757/757 [=====] - 746s 985ms/step - loss: 0.8290 - acc: 0.6812 - val_loss: 0.9730 - val_acc: 0.6220
Epoch 12/30
190/190 [=====] - 52s 275ms/step - loss: 0.9315 - acc: 0.6612

Epoch 00012: saving model to /content/drive/My Drive/images/models/model_ex-012_acc-0.661224.h5
757/757 [=====] - 747s 986ms/step - loss: 0.7956 - acc: 0.6924 - val_loss: 0.9315 - val_acc: 0.6612
Epoch 13/30
190/190 [=====] - 52s 275ms/step - loss: 0.9841 - acc: 0.6213

Epoch 00013: saving model to /content/drive/My Drive/images/models/model_ex-013_acc-0.621310.h5
757/757 [=====] - 749s 990ms/step - loss: 0.7793 - acc: 0.7017 - val_loss: 0.9841 - val_acc: 0.6213
Epoch 14/30
190/190 [=====] - 52s 273ms/step - loss: 0.7244 - acc: 0.7218

Epoch 00014: saving model to /content/drive/My Drive/images/models/model_ex-014_acc-0.721755.h5
757/757 [=====] - 748s 989ms/step - loss: 0.6924 - acc: 0.7303 - val_loss: 0.7244 - val_acc: 0.7218
Epoch 15/30
190/190 [=====] - 52s 275ms/step - loss: 0.7285 - acc: 0.7211

Epoch 00015: saving model to /content/drive/My Drive/images/models/model_ex-015_acc-0.721095.h5
757/757 [=====] - 747s 987ms/step - loss: 0.6641 - acc: 0.7457 - val_loss: 0.7285 - val_acc: 0.7211
Epoch 16/30
190/190 [=====] - 52s 275ms/step - loss: 0.7156 - acc: 0.7237

Epoch 00016: saving model to /content/drive/My Drive/images/models/model_ex-016_acc-0.723734.h5
757/757 [=====] - 751s 992ms/step - loss: 0.6585 - acc: 0.7493 - val_loss: 0.7156 - val_acc: 0.7237
Epoch 17/30
190/190 [=====] - 52s 274ms/step - loss: 0.7128 - acc: 0.7287

Epoch 00017: saving model to /content/drive/My Drive/images/models/model_ex-017_acc-0.728682.h5
757/757 [=====] - 753s 995ms/step - loss: 0.6463 - acc: 0.7521 - val_loss: 0.7128 - val_acc: 0.7287
Epoch 18/30
190/190 [=====] - 53s 277ms/step - loss: 0.7141 - acc: 0.7275

Epoch 00018: saving model to /content/drive/My Drive/images/models/model_ex-018_acc-0.727528.h5
757/757 [=====] - 750s 991ms/step - loss: 0.6425 - acc: 0.7567 - val_loss: 0.7141 - val_acc: 0.7275
Epoch 19/30
190/190 [=====] - 52s 273ms/step - loss: 0.7102 - acc: 0.7313

Epoch 00019: saving model to /content/drive/My Drive/images/models/model_ex-019_acc-0.731321.h5
757/757 [=====] - 746s 985ms/step - loss: 0.6335 - acc: 0.7566 - val_loss: 0.7102 - val_acc: 0.7313
Epoch 20/30
190/190 [=====] - 52s 274ms/step - loss: 0.7056 - acc: 0.7323

Epoch 00020: saving model to /content/drive/My Drive/images/models/model_ex-020_acc-0.732311.h5
757/757 [=====] - 746s 985ms/step - loss: 0.6242 - acc: 0.7613 - val_loss: 0.7056 - val_acc: 0.7323
Epoch 21/30
190/190 [=====] - 52s 273ms/step - loss: 0.7057 - acc: 0.7302

Epoch 00021: saving model to /content/drive/My Drive/images/models/model_ex-021_acc-0.730167.h5
757/757 [=====] - 744s 982ms/step - loss: 0.6192 - acc: 0.7637 - val_loss: 0.7057 - val_acc: 0.7302
Epoch 22/30
190/190 [=====] - 52s 274ms/step - loss: 0.7050 - acc: 0.7303

Epoch 00022: saving model to /content/drive/My Drive/images/models/model_ex-022_acc-0.730332.h5
757/757 [=====] - 745s 984ms/step - loss: 0.6197 - acc: 0.7642 - val_loss: 0.7050 - val_acc: 0.7303
Epoch 23/30
190/190 [=====] - 52s 273ms/step - loss: 0.7054 - acc: 0.7293

Epoch 00023: saving model to /content/drive/My Drive/images/models/model_ex-023_acc-0.729342.h5
757/757 [=====] - 742s 980ms/step - loss: 0.6206 - acc: 0.7620 - val_loss: 0.7054 - val_acc: 0.7293
Epoch 24/30
190/190 [=====] - 52s 272ms/step - loss: 0.7041 - acc: 0.7303

Epoch 00024: saving model to /content/drive/My Drive/images/models/model_ex-024_acc-0.730332.h5
757/757 [=====] - 739s 977ms/step - loss: 0.6188 - acc: 0.7648 - val_loss: 0.7041 - val_acc: 0.7303
Epoch 25/30
190/190 [=====] - 52s 271ms/step - loss: 0.7045 - acc: 0.7298

Epoch 00025: saving model to /content/drive/My Drive/images/models/model_ex-025_acc-0.729837.h5
757/757 [=====] - 741s 979ms/step - loss: 0.6162 - acc: 0.7646 - val_loss: 0.7045 - val_acc: 0.7298
Epoch 26/30
190/190 [=====] - 52s 272ms/step - loss: 0.7041 - acc: 0.7305

Epoch 00026: saving model to /content/drive/My Drive/images/models/model_ex-026_acc-0.730496.h5
757/757 [=====] - 741s 979ms/step - loss: 0.6181 - acc: 0.7661 - val_loss: 0.7041 - val_acc: 0.7305
Epoch 27/30
190/190 [=====] - 52s 274ms/step - loss: 0.7038 - acc: 0.7308

Epoch 00027: saving model to /content/drive/My Drive/images/models/model_ex-027_acc-0.730826.h5
757/757 [=====] - 741s 979ms/step - loss: 0.6159 - acc: 0.7643 - val_loss: 0.7038 - val_acc: 0.7308

Epoch 28/30
190/190 [=====] - 52s 276ms/step - loss: 0.7048 - acc: 0.7303

Epoch 00028: saving model to /content/drive/My Drive/images/models/model_ex-028_acc-0.730332.h5
757/757 [=====] - 741s 979ms/step - loss: 0.6167 - acc: 0.7628 - val_loss: 0.7048 - val_acc: 0.7303

Epoch 29/30
190/190 [=====] - 52s 273ms/step - loss: 0.7056 - acc: 0.7305

Epoch 00029: saving model to /content/drive/My Drive/images/models/model_ex-029_acc-0.730496.h5
757/757 [=====] - 745s 985ms/step - loss: 0.6156 - acc: 0.7641 - val_loss: 0.7056 - val_acc: 0.7305

Epoch 30/30
190/190 [=====] - 52s 272ms/step - loss: 0.7037 - acc: 0.7308

Epoch 00030: saving model to /content/drive/My Drive/images/models/model_ex-030_acc-0.730826.h5
757/757 [=====] - 744s 983ms/step - loss: 0.6178 - acc: 0.7647 - val_loss: 0.7037 - val_acc: 0.7308