

Layer (type)	Output Shape	Param #	Connected to
input_7 (InputLayer)	(None, 224, 224, 3)	0	
conv2d_720 (Conv2D)	(None, 112, 112, 64)	9408	input_7[0][0]
batch_normalization_v1_726 (Batch Normalization)	(None, 112, 112, 64)	256	conv2d_720[0][0]
activation_726 (Activation)	(None, 112, 112, 64)	0	batch_normalization_v1_726[0][0]
max_pooling2d_6 (MaxPooling2D)	(None, 56, 56, 64)	0	activation_726[0][0]
batch_normalization_v1_727 (Batch Normalization)	(None, 56, 56, 64)	256	max_pooling2d_6[0][0]
activation_727 (Activation)	(None, 56, 56, 64)	0	batch_normalization_v1_727[0][0]
conv2d_721 (Conv2D)	(None, 56, 56, 128)	8192	activation_727[0][0]
batch_normalization_v1_728 (Batch Normalization)	(None, 56, 56, 128)	512	conv2d_721[0][0]
activation_728 (Activation)	(None, 56, 56, 128)	0	batch_normalization_v1_728[0][0]
conv2d_722 (Conv2D)	(None, 56, 56, 32)	36864	activation_728[0][0]
concatenate_348 (Concatenate)	(None, 56, 56, 96)	0	max_pooling2d_6[0][0] conv2d_722[0][0]
batch_normalization_v1_729 (Batch Normalization)	(None, 56, 56, 96)	384	concatenate_348[0][0]
activation_729 (Activation)	(None, 56, 56, 96)	0	batch_normalization_v1_729[0][0]
conv2d_723 (Conv2D)	(None, 56, 56, 128)	12288	activation_729[0][0]
batch_normalization_v1_730 (Batch Normalization)	(None, 56, 56, 128)	512	conv2d_723[0][0]
activation_730 (Activation)	(None, 56, 56, 128)	0	batch_normalization_v1_730[0][0]
conv2d_724 (Conv2D)	(None, 56, 56, 32)	36864	activation_730[0][0]
concatenate_349 (Concatenate)	(None, 56, 56, 128)	0	concatenate_348[0][0] conv2d_724[0][0]
batch_normalization_v1_731 (Batch Normalization)	(None, 56, 56, 128)	512	concatenate_349[0][0]
activation_731 (Activation)	(None, 56, 56, 128)	0	batch_normalization_v1_731[0][0]
conv2d_725 (Conv2D)	(None, 56, 56, 128)	16384	activation_731[0][0]
batch_normalization_v1_732 (Batch Normalization)	(None, 56, 56, 128)	512	conv2d_725[0][0]
activation_732 (Activation)	(None, 56, 56, 128)	0	batch_normalization_v1_732[0][0]
conv2d_726 (Conv2D)	(None, 56, 56, 32)	36864	activation_732[0][0]
concatenate_350 (Concatenate)	(None, 56, 56, 160)	0	concatenate_349[0][0] conv2d_726[0][0]
batch_normalization_v1_733 (Batch Normalization)	(None, 56, 56, 160)	640	concatenate_350[0][0]
activation_733 (Activation)	(None, 56, 56, 160)	0	batch_normalization_v1_733[0][0]
conv2d_727 (Conv2D)	(None, 56, 56, 128)	20480	activation_733[0][0]
batch_normalization_v1_734 (Batch Normalization)	(None, 56, 56, 128)	512	conv2d_727[0][0]
activation_734 (Activation)	(None, 56, 56, 128)	0	batch_normalization_v1_734[0][0]
conv2d_728 (Conv2D)	(None, 56, 56, 32)	36864	activation_734[0][0]
concatenate_351 (Concatenate)	(None, 56, 56, 192)	0	concatenate_350[0][0] conv2d_728[0][0]
batch_normalization_v1_735 (Batch Normalization)	(None, 56, 56, 192)	768	concatenate_351[0][0]
activation_735 (Activation)	(None, 56, 56, 192)	0	batch_normalization_v1_735[0][0]
conv2d_729 (Conv2D)	(None, 56, 56, 128)	24576	activation_735[0][0]
batch_normalization_v1_736 (Batch Normalization)	(None, 56, 56, 128)	512	conv2d_729[0][0]
activation_736 (Activation)	(None, 56, 56, 128)	0	batch_normalization_v1_736[0][0]
conv2d_730 (Conv2D)	(None, 56, 56, 32)	36864	activation_736[0][0]
concatenate_352 (Concatenate)	(None, 56, 56, 224)	0	concatenate_351[0][0]

				conv2d_730[0][0]
batch_normalization_v1_737 (Bat	(None, 56, 56, 224)	896		concatenate_352[0][0]
activation_737 (Activation)	(None, 56, 56, 224)	0		batch_normalization_v1_737[0][0]
conv2d_731 (Conv2D)	(None, 56, 56, 128)	28672		activation_737[0][0]
batch_normalization_v1_738 (Bat	(None, 56, 56, 128)	512		conv2d_731[0][0]
activation_738 (Activation)	(None, 56, 56, 128)	0		batch_normalization_v1_738[0][0]
conv2d_732 (Conv2D)	(None, 56, 56, 32)	36864		activation_738[0][0]
concatenate_353 (Concatenate)	(None, 56, 56, 256)	0		concatenate_352[0][0] conv2d_732[0][0]
batch_normalization_v1_739 (Bat	(None, 56, 56, 256)	1024		concatenate_353[0][0]
activation_739 (Activation)	(None, 56, 56, 256)	0		batch_normalization_v1_739[0][0]
conv2d_733 (Conv2D)	(None, 56, 56, 128)	32768		activation_739[0][0]
average_pooling2d_18 (AveragePo	(None, 28, 28, 128)	0		conv2d_733[0][0]
batch_normalization_v1_740 (Bat	(None, 28, 28, 128)	512		average_pooling2d_18[0][0]
activation_740 (Activation)	(None, 28, 28, 128)	0		batch_normalization_v1_740[0][0]
conv2d_734 (Conv2D)	(None, 28, 28, 128)	16384		activation_740[0][0]
batch_normalization_v1_741 (Bat	(None, 28, 28, 128)	512		conv2d_734[0][0]
activation_741 (Activation)	(None, 28, 28, 128)	0		batch_normalization_v1_741[0][0]
conv2d_735 (Conv2D)	(None, 28, 28, 32)	36864		activation_741[0][0]
concatenate_354 (Concatenate)	(None, 28, 28, 160)	0		average_pooling2d_18[0][0] conv2d_735[0][0]
batch_normalization_v1_742 (Bat	(None, 28, 28, 160)	640		concatenate_354[0][0]
activation_742 (Activation)	(None, 28, 28, 160)	0		batch_normalization_v1_742[0][0]
conv2d_736 (Conv2D)	(None, 28, 28, 128)	20480		activation_742[0][0]
batch_normalization_v1_743 (Bat	(None, 28, 28, 128)	512		conv2d_736[0][0]
activation_743 (Activation)	(None, 28, 28, 128)	0		batch_normalization_v1_743[0][0]
conv2d_737 (Conv2D)	(None, 28, 28, 32)	36864		activation_743[0][0]
concatenate_355 (Concatenate)	(None, 28, 28, 192)	0		concatenate_354[0][0] conv2d_737[0][0]
batch_normalization_v1_744 (Bat	(None, 28, 28, 192)	768		concatenate_355[0][0]
activation_744 (Activation)	(None, 28, 28, 192)	0		batch_normalization_v1_744[0][0]
conv2d_738 (Conv2D)	(None, 28, 28, 128)	24576		activation_744[0][0]
batch_normalization_v1_745 (Bat	(None, 28, 28, 128)	512		conv2d_738[0][0]
activation_745 (Activation)	(None, 28, 28, 128)	0		batch_normalization_v1_745[0][0]
conv2d_739 (Conv2D)	(None, 28, 28, 32)	36864		activation_745[0][0]
concatenate_356 (Concatenate)	(None, 28, 28, 224)	0		concatenate_355[0][0] conv2d_739[0][0]
batch_normalization_v1_746 (Bat	(None, 28, 28, 224)	896		concatenate_356[0][0]
activation_746 (Activation)	(None, 28, 28, 224)	0		batch_normalization_v1_746[0][0]
conv2d_740 (Conv2D)	(None, 28, 28, 128)	28672		activation_746[0][0]
batch_normalization_v1_747 (Bat	(None, 28, 28, 128)	512		conv2d_740[0][0]
activation_747 (Activation)	(None, 28, 28, 128)	0		batch_normalization_v1_747[0][0]
conv2d_741 (Conv2D)	(None, 28, 28, 32)	36864		activation_747[0][0]
concatenate_357 (Concatenate)	(None, 28, 28, 256)	0		concatenate_356[0][0] conv2d_741[0][0]
batch_normalization_v1_748 (Bat	(None, 28, 28, 256)	1024		concatenate_357[0][0]

activation_748 (Activation)	(None, 28, 28, 256)	0	batch_normalization_v1_748[0][0]
conv2d_742 (Conv2D)	(None, 28, 28, 128)	32768	activation_748[0][0]
batch_normalization_v1_749 (Bat	(None, 28, 28, 128)	512	conv2d_742[0][0]
activation_749 (Activation)	(None, 28, 28, 128)	0	batch_normalization_v1_749[0][0]
conv2d_743 (Conv2D)	(None, 28, 28, 32)	36864	activation_749[0][0]
concatenate_358 (Concatenate)	(None, 28, 28, 288)	0	concatenate_357[0][0] conv2d_743[0][0]
batch_normalization_v1_750 (Bat	(None, 28, 28, 288)	1152	concatenate_358[0][0]
activation_750 (Activation)	(None, 28, 28, 288)	0	batch_normalization_v1_750[0][0]
conv2d_744 (Conv2D)	(None, 28, 28, 128)	36864	activation_750[0][0]
batch_normalization_v1_751 (Bat	(None, 28, 28, 128)	512	conv2d_744[0][0]
activation_751 (Activation)	(None, 28, 28, 128)	0	batch_normalization_v1_751[0][0]
conv2d_745 (Conv2D)	(None, 28, 28, 32)	36864	activation_751[0][0]
concatenate_359 (Concatenate)	(None, 28, 28, 320)	0	concatenate_358[0][0] conv2d_745[0][0]
batch_normalization_v1_752 (Bat	(None, 28, 28, 320)	1280	concatenate_359[0][0]
activation_752 (Activation)	(None, 28, 28, 320)	0	batch_normalization_v1_752[0][0]
conv2d_746 (Conv2D)	(None, 28, 28, 128)	40960	activation_752[0][0]
batch_normalization_v1_753 (Bat	(None, 28, 28, 128)	512	conv2d_746[0][0]
activation_753 (Activation)	(None, 28, 28, 128)	0	batch_normalization_v1_753[0][0]
conv2d_747 (Conv2D)	(None, 28, 28, 32)	36864	activation_753[0][0]
concatenate_360 (Concatenate)	(None, 28, 28, 352)	0	concatenate_359[0][0] conv2d_747[0][0]
batch_normalization_v1_754 (Bat	(None, 28, 28, 352)	1408	concatenate_360[0][0]
activation_754 (Activation)	(None, 28, 28, 352)	0	batch_normalization_v1_754[0][0]
conv2d_748 (Conv2D)	(None, 28, 28, 128)	45056	activation_754[0][0]
batch_normalization_v1_755 (Bat	(None, 28, 28, 128)	512	conv2d_748[0][0]
activation_755 (Activation)	(None, 28, 28, 128)	0	batch_normalization_v1_755[0][0]
conv2d_749 (Conv2D)	(None, 28, 28, 32)	36864	activation_755[0][0]
concatenate_361 (Concatenate)	(None, 28, 28, 384)	0	concatenate_360[0][0] conv2d_749[0][0]
batch_normalization_v1_756 (Bat	(None, 28, 28, 384)	1536	concatenate_361[0][0]
activation_756 (Activation)	(None, 28, 28, 384)	0	batch_normalization_v1_756[0][0]
conv2d_750 (Conv2D)	(None, 28, 28, 128)	49152	activation_756[0][0]
batch_normalization_v1_757 (Bat	(None, 28, 28, 128)	512	conv2d_750[0][0]
activation_757 (Activation)	(None, 28, 28, 128)	0	batch_normalization_v1_757[0][0]
conv2d_751 (Conv2D)	(None, 28, 28, 32)	36864	activation_757[0][0]
concatenate_362 (Concatenate)	(None, 28, 28, 416)	0	concatenate_361[0][0] conv2d_751[0][0]
batch_normalization_v1_758 (Bat	(None, 28, 28, 416)	1664	concatenate_362[0][0]
activation_758 (Activation)	(None, 28, 28, 416)	0	batch_normalization_v1_758[0][0]
conv2d_752 (Conv2D)	(None, 28, 28, 128)	53248	activation_758[0][0]
batch_normalization_v1_759 (Bat	(None, 28, 28, 128)	512	conv2d_752[0][0]
activation_759 (Activation)	(None, 28, 28, 128)	0	batch_normalization_v1_759[0][0]
conv2d_753 (Conv2D)	(None, 28, 28, 32)	36864	activation_759[0][0]

concatenate_363 (Concatenate)	(None, 28, 28, 448)	0	concatenate_362[0][0] conv2d_753[0][0]
batch_normalization_v1_760 (Batch Normalization)	(None, 28, 28, 448)	1792	concatenate_363[0][0]
activation_760 (Activation)	(None, 28, 28, 448)	0	batch_normalization_v1_760[0][0]
conv2d_754 (Conv2D)	(None, 28, 28, 128)	57344	activation_760[0][0]
batch_normalization_v1_761 (Batch Normalization)	(None, 28, 28, 128)	512	conv2d_754[0][0]
activation_761 (Activation)	(None, 28, 28, 128)	0	batch_normalization_v1_761[0][0]
conv2d_755 (Conv2D)	(None, 28, 28, 32)	36864	activation_761[0][0]
concatenate_364 (Concatenate)	(None, 28, 28, 480)	0	concatenate_363[0][0] conv2d_755[0][0]
batch_normalization_v1_762 (Batch Normalization)	(None, 28, 28, 480)	1920	concatenate_364[0][0]
activation_762 (Activation)	(None, 28, 28, 480)	0	batch_normalization_v1_762[0][0]
conv2d_756 (Conv2D)	(None, 28, 28, 128)	61440	activation_762[0][0]
batch_normalization_v1_763 (Batch Normalization)	(None, 28, 28, 128)	512	conv2d_756[0][0]
activation_763 (Activation)	(None, 28, 28, 128)	0	batch_normalization_v1_763[0][0]
conv2d_757 (Conv2D)	(None, 28, 28, 32)	36864	activation_763[0][0]
concatenate_365 (Concatenate)	(None, 28, 28, 512)	0	concatenate_364[0][0] conv2d_757[0][0]
batch_normalization_v1_764 (Batch Normalization)	(None, 28, 28, 512)	2048	concatenate_365[0][0]
activation_764 (Activation)	(None, 28, 28, 512)	0	batch_normalization_v1_764[0][0]
conv2d_758 (Conv2D)	(None, 28, 28, 256)	131072	activation_764[0][0]
average_pooling2d_19 (Average Pooling)	(None, 14, 14, 256)	0	conv2d_758[0][0]
batch_normalization_v1_765 (Batch Normalization)	(None, 14, 14, 256)	1024	average_pooling2d_19[0][0]
activation_765 (Activation)	(None, 14, 14, 256)	0	batch_normalization_v1_765[0][0]
conv2d_759 (Conv2D)	(None, 14, 14, 128)	32768	activation_765[0][0]
batch_normalization_v1_766 (Batch Normalization)	(None, 14, 14, 128)	512	conv2d_759[0][0]
activation_766 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_766[0][0]
conv2d_760 (Conv2D)	(None, 14, 14, 32)	36864	activation_766[0][0]
concatenate_366 (Concatenate)	(None, 14, 14, 288)	0	average_pooling2d_19[0][0] conv2d_760[0][0]
batch_normalization_v1_767 (Batch Normalization)	(None, 14, 14, 288)	1152	concatenate_366[0][0]
activation_767 (Activation)	(None, 14, 14, 288)	0	batch_normalization_v1_767[0][0]
conv2d_761 (Conv2D)	(None, 14, 14, 128)	36864	activation_767[0][0]
batch_normalization_v1_768 (Batch Normalization)	(None, 14, 14, 128)	512	conv2d_761[0][0]
activation_768 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_768[0][0]
conv2d_762 (Conv2D)	(None, 14, 14, 32)	36864	activation_768[0][0]
concatenate_367 (Concatenate)	(None, 14, 14, 320)	0	concatenate_366[0][0] conv2d_762[0][0]
batch_normalization_v1_769 (Batch Normalization)	(None, 14, 14, 320)	1280	concatenate_367[0][0]
activation_769 (Activation)	(None, 14, 14, 320)	0	batch_normalization_v1_769[0][0]
conv2d_763 (Conv2D)	(None, 14, 14, 128)	40960	activation_769[0][0]
batch_normalization_v1_770 (Batch Normalization)	(None, 14, 14, 128)	512	conv2d_763[0][0]
activation_770 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_770[0][0]
conv2d_764 (Conv2D)	(None, 14, 14, 32)	36864	activation_770[0][0]
concatenate_368 (Concatenate)	(None, 14, 14, 352)	0	concatenate_367[0][0] conv2d_764[0][0]

batch_normalization_v1_771 (Bat	(None, 14, 14, 352)	1408	concatenate_368[0][0]
activation_771 (Activation)	(None, 14, 14, 352)	0	batch_normalization_v1_771[0][0]
conv2d_765 (Conv2D)	(None, 14, 14, 128)	45056	activation_771[0][0]
batch_normalization_v1_772 (Bat	(None, 14, 14, 128)	512	conv2d_765[0][0]
activation_772 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_772[0][0]
conv2d_766 (Conv2D)	(None, 14, 14, 32)	36864	activation_772[0][0]
concatenate_369 (Concatenate)	(None, 14, 14, 384)	0	concatenate_368[0][0] conv2d_766[0][0]
batch_normalization_v1_773 (Bat	(None, 14, 14, 384)	1536	concatenate_369[0][0]
activation_773 (Activation)	(None, 14, 14, 384)	0	batch_normalization_v1_773[0][0]
conv2d_767 (Conv2D)	(None, 14, 14, 128)	49152	activation_773[0][0]
batch_normalization_v1_774 (Bat	(None, 14, 14, 128)	512	conv2d_767[0][0]
activation_774 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_774[0][0]
conv2d_768 (Conv2D)	(None, 14, 14, 32)	36864	activation_774[0][0]
concatenate_370 (Concatenate)	(None, 14, 14, 416)	0	concatenate_369[0][0] conv2d_768[0][0]
batch_normalization_v1_775 (Bat	(None, 14, 14, 416)	1664	concatenate_370[0][0]
activation_775 (Activation)	(None, 14, 14, 416)	0	batch_normalization_v1_775[0][0]
conv2d_769 (Conv2D)	(None, 14, 14, 128)	53248	activation_775[0][0]
batch_normalization_v1_776 (Bat	(None, 14, 14, 128)	512	conv2d_769[0][0]
activation_776 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_776[0][0]
conv2d_770 (Conv2D)	(None, 14, 14, 32)	36864	activation_776[0][0]
concatenate_371 (Concatenate)	(None, 14, 14, 448)	0	concatenate_370[0][0] conv2d_770[0][0]
batch_normalization_v1_777 (Bat	(None, 14, 14, 448)	1792	concatenate_371[0][0]
activation_777 (Activation)	(None, 14, 14, 448)	0	batch_normalization_v1_777[0][0]
conv2d_771 (Conv2D)	(None, 14, 14, 128)	57344	activation_777[0][0]
batch_normalization_v1_778 (Bat	(None, 14, 14, 128)	512	conv2d_771[0][0]
activation_778 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_778[0][0]
conv2d_772 (Conv2D)	(None, 14, 14, 32)	36864	activation_778[0][0]
concatenate_372 (Concatenate)	(None, 14, 14, 480)	0	concatenate_371[0][0] conv2d_772[0][0]
batch_normalization_v1_779 (Bat	(None, 14, 14, 480)	1920	concatenate_372[0][0]
activation_779 (Activation)	(None, 14, 14, 480)	0	batch_normalization_v1_779[0][0]
conv2d_773 (Conv2D)	(None, 14, 14, 128)	61440	activation_779[0][0]
batch_normalization_v1_780 (Bat	(None, 14, 14, 128)	512	conv2d_773[0][0]
activation_780 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_780[0][0]
conv2d_774 (Conv2D)	(None, 14, 14, 32)	36864	activation_780[0][0]
concatenate_373 (Concatenate)	(None, 14, 14, 512)	0	concatenate_372[0][0] conv2d_774[0][0]
batch_normalization_v1_781 (Bat	(None, 14, 14, 512)	2048	concatenate_373[0][0]
activation_781 (Activation)	(None, 14, 14, 512)	0	batch_normalization_v1_781[0][0]
conv2d_775 (Conv2D)	(None, 14, 14, 128)	65536	activation_781[0][0]
batch_normalization_v1_782 (Bat	(None, 14, 14, 128)	512	conv2d_775[0][0]
activation_782 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_782[0][0]
conv2d_776 (Conv2D)	(None, 14, 14, 32)	36864	activation_782[0][0]

concatenate_374 (Concatenate)	(None, 14, 14, 544)	0	concatenate_373[0][0] conv2d_776[0][0]
batch_normalization_v1_783 (Batch Normalization)	(None, 14, 14, 544)	2176	concatenate_374[0][0]
activation_783 (Activation)	(None, 14, 14, 544)	0	batch_normalization_v1_783[0][0]
conv2d_777 (Conv2D)	(None, 14, 14, 128)	69632	activation_783[0][0]
batch_normalization_v1_784 (Batch Normalization)	(None, 14, 14, 128)	512	conv2d_777[0][0]
activation_784 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_784[0][0]
conv2d_778 (Conv2D)	(None, 14, 14, 32)	36864	activation_784[0][0]
concatenate_375 (Concatenate)	(None, 14, 14, 576)	0	concatenate_374[0][0] conv2d_778[0][0]
batch_normalization_v1_785 (Batch Normalization)	(None, 14, 14, 576)	2304	concatenate_375[0][0]
activation_785 (Activation)	(None, 14, 14, 576)	0	batch_normalization_v1_785[0][0]
conv2d_779 (Conv2D)	(None, 14, 14, 128)	73728	activation_785[0][0]
batch_normalization_v1_786 (Batch Normalization)	(None, 14, 14, 128)	512	conv2d_779[0][0]
activation_786 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_786[0][0]
conv2d_780 (Conv2D)	(None, 14, 14, 32)	36864	activation_786[0][0]
concatenate_376 (Concatenate)	(None, 14, 14, 608)	0	concatenate_375[0][0] conv2d_780[0][0]
batch_normalization_v1_787 (Batch Normalization)	(None, 14, 14, 608)	2432	concatenate_376[0][0]
activation_787 (Activation)	(None, 14, 14, 608)	0	batch_normalization_v1_787[0][0]
conv2d_781 (Conv2D)	(None, 14, 14, 128)	77824	activation_787[0][0]
batch_normalization_v1_788 (Batch Normalization)	(None, 14, 14, 128)	512	conv2d_781[0][0]
activation_788 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_788[0][0]
conv2d_782 (Conv2D)	(None, 14, 14, 32)	36864	activation_788[0][0]
concatenate_377 (Concatenate)	(None, 14, 14, 640)	0	concatenate_376[0][0] conv2d_782[0][0]
batch_normalization_v1_789 (Batch Normalization)	(None, 14, 14, 640)	2560	concatenate_377[0][0]
activation_789 (Activation)	(None, 14, 14, 640)	0	batch_normalization_v1_789[0][0]
conv2d_783 (Conv2D)	(None, 14, 14, 128)	81920	activation_789[0][0]
batch_normalization_v1_790 (Batch Normalization)	(None, 14, 14, 128)	512	conv2d_783[0][0]
activation_790 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_790[0][0]
conv2d_784 (Conv2D)	(None, 14, 14, 32)	36864	activation_790[0][0]
concatenate_378 (Concatenate)	(None, 14, 14, 672)	0	concatenate_377[0][0] conv2d_784[0][0]
batch_normalization_v1_791 (Batch Normalization)	(None, 14, 14, 672)	2688	concatenate_378[0][0]
activation_791 (Activation)	(None, 14, 14, 672)	0	batch_normalization_v1_791[0][0]
conv2d_785 (Conv2D)	(None, 14, 14, 128)	86016	activation_791[0][0]
batch_normalization_v1_792 (Batch Normalization)	(None, 14, 14, 128)	512	conv2d_785[0][0]
activation_792 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_792[0][0]
conv2d_786 (Conv2D)	(None, 14, 14, 32)	36864	activation_792[0][0]
concatenate_379 (Concatenate)	(None, 14, 14, 704)	0	concatenate_378[0][0] conv2d_786[0][0]
batch_normalization_v1_793 (Batch Normalization)	(None, 14, 14, 704)	2816	concatenate_379[0][0]
activation_793 (Activation)	(None, 14, 14, 704)	0	batch_normalization_v1_793[0][0]
conv2d_787 (Conv2D)	(None, 14, 14, 128)	90112	activation_793[0][0]
batch_normalization_v1_794 (Batch Normalization)	(None, 14, 14, 128)	512	conv2d_787[0][0]

activation_794 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_794[0][0]
conv2d_788 (Conv2D)	(None, 14, 14, 32)	36864	activation_794[0][0]
concatenate_380 (Concatenate)	(None, 14, 14, 736)	0	concatenate_379[0][0] conv2d_788[0][0]
batch_normalization_v1_795 (Bat	(None, 14, 14, 736)	2944	concatenate_380[0][0]
activation_795 (Activation)	(None, 14, 14, 736)	0	batch_normalization_v1_795[0][0]
conv2d_789 (Conv2D)	(None, 14, 14, 128)	94208	activation_795[0][0]
batch_normalization_v1_796 (Bat	(None, 14, 14, 128)	512	conv2d_789[0][0]
activation_796 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_796[0][0]
conv2d_790 (Conv2D)	(None, 14, 14, 32)	36864	activation_796[0][0]
concatenate_381 (Concatenate)	(None, 14, 14, 768)	0	concatenate_380[0][0] conv2d_790[0][0]
batch_normalization_v1_797 (Bat	(None, 14, 14, 768)	3072	concatenate_381[0][0]
activation_797 (Activation)	(None, 14, 14, 768)	0	batch_normalization_v1_797[0][0]
conv2d_791 (Conv2D)	(None, 14, 14, 128)	98304	activation_797[0][0]
batch_normalization_v1_798 (Bat	(None, 14, 14, 128)	512	conv2d_791[0][0]
activation_798 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_798[0][0]
conv2d_792 (Conv2D)	(None, 14, 14, 32)	36864	activation_798[0][0]
concatenate_382 (Concatenate)	(None, 14, 14, 800)	0	concatenate_381[0][0] conv2d_792[0][0]
batch_normalization_v1_799 (Bat	(None, 14, 14, 800)	3200	concatenate_382[0][0]
activation_799 (Activation)	(None, 14, 14, 800)	0	batch_normalization_v1_799[0][0]
conv2d_793 (Conv2D)	(None, 14, 14, 128)	102400	activation_799[0][0]
batch_normalization_v1_800 (Bat	(None, 14, 14, 128)	512	conv2d_793[0][0]
activation_800 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_800[0][0]
conv2d_794 (Conv2D)	(None, 14, 14, 32)	36864	activation_800[0][0]
concatenate_383 (Concatenate)	(None, 14, 14, 832)	0	concatenate_382[0][0] conv2d_794[0][0]
batch_normalization_v1_801 (Bat	(None, 14, 14, 832)	3328	concatenate_383[0][0]
activation_801 (Activation)	(None, 14, 14, 832)	0	batch_normalization_v1_801[0][0]
conv2d_795 (Conv2D)	(None, 14, 14, 128)	106496	activation_801[0][0]
batch_normalization_v1_802 (Bat	(None, 14, 14, 128)	512	conv2d_795[0][0]
activation_802 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_802[0][0]
conv2d_796 (Conv2D)	(None, 14, 14, 32)	36864	activation_802[0][0]
concatenate_384 (Concatenate)	(None, 14, 14, 864)	0	concatenate_383[0][0] conv2d_796[0][0]
batch_normalization_v1_803 (Bat	(None, 14, 14, 864)	3456	concatenate_384[0][0]
activation_803 (Activation)	(None, 14, 14, 864)	0	batch_normalization_v1_803[0][0]
conv2d_797 (Conv2D)	(None, 14, 14, 128)	110592	activation_803[0][0]
batch_normalization_v1_804 (Bat	(None, 14, 14, 128)	512	conv2d_797[0][0]
activation_804 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_804[0][0]
conv2d_798 (Conv2D)	(None, 14, 14, 32)	36864	activation_804[0][0]
concatenate_385 (Concatenate)	(None, 14, 14, 896)	0	concatenate_384[0][0] conv2d_798[0][0]
batch_normalization_v1_805 (Bat	(None, 14, 14, 896)	3584	concatenate_385[0][0]
activation_805 (Activation)	(None, 14, 14, 896)	0	batch_normalization_v1_805[0][0]

conv2d_799 (Conv2D)	(None, 14, 14, 128)	114688	activation_805[0][0]
batch_normalization_v1_806 (Batch Normalization)	(None, 14, 14, 128)	512	conv2d_799[0][0]
activation_806 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_806[0][0]
conv2d_800 (Conv2D)	(None, 14, 14, 32)	36864	activation_806[0][0]
concatenate_386 (Concatenate)	(None, 14, 14, 928)	0	concatenate_385[0][0] conv2d_800[0][0]
batch_normalization_v1_807 (Batch Normalization)	(None, 14, 14, 928)	3712	concatenate_386[0][0]
activation_807 (Activation)	(None, 14, 14, 928)	0	batch_normalization_v1_807[0][0]
conv2d_801 (Conv2D)	(None, 14, 14, 128)	118784	activation_807[0][0]
batch_normalization_v1_808 (Batch Normalization)	(None, 14, 14, 128)	512	conv2d_801[0][0]
activation_808 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_808[0][0]
conv2d_802 (Conv2D)	(None, 14, 14, 32)	36864	activation_808[0][0]
concatenate_387 (Concatenate)	(None, 14, 14, 960)	0	concatenate_386[0][0] conv2d_802[0][0]
batch_normalization_v1_809 (Batch Normalization)	(None, 14, 14, 960)	3840	concatenate_387[0][0]
activation_809 (Activation)	(None, 14, 14, 960)	0	batch_normalization_v1_809[0][0]
conv2d_803 (Conv2D)	(None, 14, 14, 128)	122880	activation_809[0][0]
batch_normalization_v1_810 (Batch Normalization)	(None, 14, 14, 128)	512	conv2d_803[0][0]
activation_810 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_810[0][0]
conv2d_804 (Conv2D)	(None, 14, 14, 32)	36864	activation_810[0][0]
concatenate_388 (Concatenate)	(None, 14, 14, 992)	0	concatenate_387[0][0] conv2d_804[0][0]
batch_normalization_v1_811 (Batch Normalization)	(None, 14, 14, 992)	3968	concatenate_388[0][0]
activation_811 (Activation)	(None, 14, 14, 992)	0	batch_normalization_v1_811[0][0]
conv2d_805 (Conv2D)	(None, 14, 14, 128)	126976	activation_811[0][0]
batch_normalization_v1_812 (Batch Normalization)	(None, 14, 14, 128)	512	conv2d_805[0][0]
activation_812 (Activation)	(None, 14, 14, 128)	0	batch_normalization_v1_812[0][0]
conv2d_806 (Conv2D)	(None, 14, 14, 32)	36864	activation_812[0][0]
concatenate_389 (Concatenate)	(None, 14, 14, 1024)	0	concatenate_388[0][0] conv2d_806[0][0]
batch_normalization_v1_813 (Batch Normalization)	(None, 14, 14, 1024)	4096	concatenate_389[0][0]
activation_813 (Activation)	(None, 14, 14, 1024)	0	batch_normalization_v1_813[0][0]
conv2d_807 (Conv2D)	(None, 14, 14, 512)	524288	activation_813[0][0]
average_pooling2d_20 (Average Pooling)	(None, 7, 7, 512)	0	conv2d_807[0][0]
batch_normalization_v1_814 (Batch Normalization)	(None, 7, 7, 512)	2048	average_pooling2d_20[0][0]
activation_814 (Activation)	(None, 7, 7, 512)	0	batch_normalization_v1_814[0][0]
conv2d_808 (Conv2D)	(None, 7, 7, 128)	65536	activation_814[0][0]
batch_normalization_v1_815 (Batch Normalization)	(None, 7, 7, 128)	512	conv2d_808[0][0]
activation_815 (Activation)	(None, 7, 7, 128)	0	batch_normalization_v1_815[0][0]
conv2d_809 (Conv2D)	(None, 7, 7, 32)	36864	activation_815[0][0]
concatenate_390 (Concatenate)	(None, 7, 7, 544)	0	average_pooling2d_20[0][0] conv2d_809[0][0]
batch_normalization_v1_816 (Batch Normalization)	(None, 7, 7, 544)	2176	concatenate_390[0][0]
activation_816 (Activation)	(None, 7, 7, 544)	0	batch_normalization_v1_816[0][0]
conv2d_810 (Conv2D)	(None, 7, 7, 128)	69632	activation_816[0][0]



batch_normalization_v1_817 (Bat	(None, 7, 7, 128)	512	conv2d_810[0][0]
activation_817 (Activation)	(None, 7, 7, 128)	0	batch_normalization_v1_817[0][0]
conv2d_811 (Conv2D)	(None, 7, 7, 32)	36864	activation_817[0][0]
concatenate_391 (Concatenate)	(None, 7, 7, 576)	0	concatenate_390[0][0] conv2d_811[0][0]
batch_normalization_v1_818 (Bat	(None, 7, 7, 576)	2304	concatenate_391[0][0]
activation_818 (Activation)	(None, 7, 7, 576)	0	batch_normalization_v1_818[0][0]
conv2d_812 (Conv2D)	(None, 7, 7, 128)	73728	activation_818[0][0]
batch_normalization_v1_819 (Bat	(None, 7, 7, 128)	512	conv2d_812[0][0]
activation_819 (Activation)	(None, 7, 7, 128)	0	batch_normalization_v1_819[0][0]
conv2d_813 (Conv2D)	(None, 7, 7, 32)	36864	activation_819[0][0]
concatenate_392 (Concatenate)	(None, 7, 7, 608)	0	concatenate_391[0][0] conv2d_813[0][0]
batch_normalization_v1_820 (Bat	(None, 7, 7, 608)	2432	concatenate_392[0][0]
activation_820 (Activation)	(None, 7, 7, 608)	0	batch_normalization_v1_820[0][0]
conv2d_814 (Conv2D)	(None, 7, 7, 128)	77824	activation_820[0][0]
batch_normalization_v1_821 (Bat	(None, 7, 7, 128)	512	conv2d_814[0][0]
activation_821 (Activation)	(None, 7, 7, 128)	0	batch_normalization_v1_821[0][0]
conv2d_815 (Conv2D)	(None, 7, 7, 32)	36864	activation_821[0][0]
concatenate_393 (Concatenate)	(None, 7, 7, 640)	0	concatenate_392[0][0] conv2d_815[0][0]
batch_normalization_v1_822 (Bat	(None, 7, 7, 640)	2560	concatenate_393[0][0]
activation_822 (Activation)	(None, 7, 7, 640)	0	batch_normalization_v1_822[0][0]
conv2d_816 (Conv2D)	(None, 7, 7, 128)	81920	activation_822[0][0]
batch_normalization_v1_823 (Bat	(None, 7, 7, 128)	512	conv2d_816[0][0]
activation_823 (Activation)	(None, 7, 7, 128)	0	batch_normalization_v1_823[0][0]
conv2d_817 (Conv2D)	(None, 7, 7, 32)	36864	activation_823[0][0]
concatenate_394 (Concatenate)	(None, 7, 7, 672)	0	concatenate_393[0][0] conv2d_817[0][0]
batch_normalization_v1_824 (Bat	(None, 7, 7, 672)	2688	concatenate_394[0][0]
activation_824 (Activation)	(None, 7, 7, 672)	0	batch_normalization_v1_824[0][0]
conv2d_818 (Conv2D)	(None, 7, 7, 128)	86016	activation_824[0][0]
batch_normalization_v1_825 (Bat	(None, 7, 7, 128)	512	conv2d_818[0][0]
activation_825 (Activation)	(None, 7, 7, 128)	0	batch_normalization_v1_825[0][0]
conv2d_819 (Conv2D)	(None, 7, 7, 32)	36864	activation_825[0][0]
concatenate_395 (Concatenate)	(None, 7, 7, 704)	0	concatenate_394[0][0] conv2d_819[0][0]
batch_normalization_v1_826 (Bat	(None, 7, 7, 704)	2816	concatenate_395[0][0]
activation_826 (Activation)	(None, 7, 7, 704)	0	batch_normalization_v1_826[0][0]
conv2d_820 (Conv2D)	(None, 7, 7, 128)	90112	activation_826[0][0]
batch_normalization_v1_827 (Bat	(None, 7, 7, 128)	512	conv2d_820[0][0]
activation_827 (Activation)	(None, 7, 7, 128)	0	batch_normalization_v1_827[0][0]
conv2d_821 (Conv2D)	(None, 7, 7, 32)	36864	activation_827[0][0]
concatenate_396 (Concatenate)	(None, 7, 7, 736)	0	concatenate_395[0][0] conv2d_821[0][0]
batch_normalization_v1_828 (Bat	(None, 7, 7, 736)	2944	concatenate_396[0][0]

activation_828 (Activation)	(None, 7, 7, 736)	0	batch_normalization_v1_828[0][0]
conv2d_822 (Conv2D)	(None, 7, 7, 128)	94208	activation_828[0][0]
batch_normalization_v1_829 (Bat	(None, 7, 7, 128)	512	conv2d_822[0][0]
activation_829 (Activation)	(None, 7, 7, 128)	0	batch_normalization_v1_829[0][0]
conv2d_823 (Conv2D)	(None, 7, 7, 32)	36864	activation_829[0][0]
concatenate_397 (Concatenate)	(None, 7, 7, 768)	0	concatenate_396[0][0] conv2d_823[0][0]
batch_normalization_v1_830 (Bat	(None, 7, 7, 768)	3072	concatenate_397[0][0]
activation_830 (Activation)	(None, 7, 7, 768)	0	batch_normalization_v1_830[0][0]
conv2d_824 (Conv2D)	(None, 7, 7, 128)	98304	activation_830[0][0]
batch_normalization_v1_831 (Bat	(None, 7, 7, 128)	512	conv2d_824[0][0]
activation_831 (Activation)	(None, 7, 7, 128)	0	batch_normalization_v1_831[0][0]
conv2d_825 (Conv2D)	(None, 7, 7, 32)	36864	activation_831[0][0]
concatenate_398 (Concatenate)	(None, 7, 7, 800)	0	concatenate_397[0][0] conv2d_825[0][0]
batch_normalization_v1_832 (Bat	(None, 7, 7, 800)	3200	concatenate_398[0][0]
activation_832 (Activation)	(None, 7, 7, 800)	0	batch_normalization_v1_832[0][0]
conv2d_826 (Conv2D)	(None, 7, 7, 128)	102400	activation_832[0][0]
batch_normalization_v1_833 (Bat	(None, 7, 7, 128)	512	conv2d_826[0][0]
activation_833 (Activation)	(None, 7, 7, 128)	0	batch_normalization_v1_833[0][0]
conv2d_827 (Conv2D)	(None, 7, 7, 32)	36864	activation_833[0][0]
concatenate_399 (Concatenate)	(None, 7, 7, 832)	0	concatenate_398[0][0] conv2d_827[0][0]
batch_normalization_v1_834 (Bat	(None, 7, 7, 832)	3328	concatenate_399[0][0]
activation_834 (Activation)	(None, 7, 7, 832)	0	batch_normalization_v1_834[0][0]
conv2d_828 (Conv2D)	(None, 7, 7, 128)	106496	activation_834[0][0]
batch_normalization_v1_835 (Bat	(None, 7, 7, 128)	512	conv2d_828[0][0]
activation_835 (Activation)	(None, 7, 7, 128)	0	batch_normalization_v1_835[0][0]
conv2d_829 (Conv2D)	(None, 7, 7, 32)	36864	activation_835[0][0]
concatenate_400 (Concatenate)	(None, 7, 7, 864)	0	concatenate_399[0][0] conv2d_829[0][0]
batch_normalization_v1_836 (Bat	(None, 7, 7, 864)	3456	concatenate_400[0][0]
activation_836 (Activation)	(None, 7, 7, 864)	0	batch_normalization_v1_836[0][0]
conv2d_830 (Conv2D)	(None, 7, 7, 128)	110592	activation_836[0][0]
batch_normalization_v1_837 (Bat	(None, 7, 7, 128)	512	conv2d_830[0][0]
activation_837 (Activation)	(None, 7, 7, 128)	0	batch_normalization_v1_837[0][0]
conv2d_831 (Conv2D)	(None, 7, 7, 32)	36864	activation_837[0][0]
concatenate_401 (Concatenate)	(None, 7, 7, 896)	0	concatenate_400[0][0] conv2d_831[0][0]
batch_normalization_v1_838 (Bat	(None, 7, 7, 896)	3584	concatenate_401[0][0]
activation_838 (Activation)	(None, 7, 7, 896)	0	batch_normalization_v1_838[0][0]
conv2d_832 (Conv2D)	(None, 7, 7, 128)	114688	activation_838[0][0]
batch_normalization_v1_839 (Bat	(None, 7, 7, 128)	512	conv2d_832[0][0]
activation_839 (Activation)	(None, 7, 7, 128)	0	batch_normalization_v1_839[0][0]
conv2d_833 (Conv2D)	(None, 7, 7, 32)	36864	activation_839[0][0]
concatenate_402 (Concatenate)	(None, 7, 7, 928)	0	concatenate_401[0][0]

			conv2d_833[0][0]
batch_normalization_v1_840 (Batch Normalization)	(None, 7, 7, 928)	3712	concatenate_402[0][0]
activation_840 (Activation)	(None, 7, 7, 928)	0	batch_normalization_v1_840[0][0]
conv2d_834 (Conv2D)	(None, 7, 7, 128)	118784	activation_840[0][0]
batch_normalization_v1_841 (Batch Normalization)	(None, 7, 7, 128)	512	conv2d_834[0][0]
activation_841 (Activation)	(None, 7, 7, 128)	0	batch_normalization_v1_841[0][0]
conv2d_835 (Conv2D)	(None, 7, 7, 32)	36864	activation_841[0][0]
concatenate_403 (Concatenate)	(None, 7, 7, 960)	0	concatenate_402[0][0] conv2d_835[0][0]
batch_normalization_v1_842 (Batch Normalization)	(None, 7, 7, 960)	3840	concatenate_403[0][0]
activation_842 (Activation)	(None, 7, 7, 960)	0	batch_normalization_v1_842[0][0]
conv2d_836 (Conv2D)	(None, 7, 7, 128)	122880	activation_842[0][0]
batch_normalization_v1_843 (Batch Normalization)	(None, 7, 7, 128)	512	conv2d_836[0][0]
activation_843 (Activation)	(None, 7, 7, 128)	0	batch_normalization_v1_843[0][0]
conv2d_837 (Conv2D)	(None, 7, 7, 32)	36864	activation_843[0][0]
concatenate_404 (Concatenate)	(None, 7, 7, 992)	0	concatenate_403[0][0] conv2d_837[0][0]
batch_normalization_v1_844 (Batch Normalization)	(None, 7, 7, 992)	3968	concatenate_404[0][0]
activation_844 (Activation)	(None, 7, 7, 992)	0	batch_normalization_v1_844[0][0]
conv2d_838 (Conv2D)	(None, 7, 7, 128)	126976	activation_844[0][0]
batch_normalization_v1_845 (Batch Normalization)	(None, 7, 7, 128)	512	conv2d_838[0][0]
activation_845 (Activation)	(None, 7, 7, 128)	0	batch_normalization_v1_845[0][0]
conv2d_839 (Conv2D)	(None, 7, 7, 32)	36864	activation_845[0][0]
concatenate_405 (Concatenate)	(None, 7, 7, 1024)	0	concatenate_404[0][0] conv2d_839[0][0]
batch_normalization_v1_846 (Batch Normalization)	(None, 7, 7, 1024)	4096	concatenate_405[0][0]
activation_846 (Activation)	(None, 7, 7, 1024)	0	batch_normalization_v1_846[0][0]
global_avg_pooling (Global Average Pooling)	(None, 1024)	0	activation_846[0][0]
dense_6 (Dense)	(None, 5)	5125	global_avg_pooling[0][0]
=====			
Total params: 7,042,629			
Trainable params: 6,958,981			
Non-trainable params: 83,648			

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) : 50

Epoch 1/50  
190/190 [=====] - 2329s 12s/step - loss: 3.0507 - acc: 0.2629

Epoch 00001: saving model to /content/drive/My Drive/images/models/model\_ex-001\_acc-0.262906.h5  
757/757 [=====] - 11677s 15s/step - loss: 2.4622 - acc: 0.3153 - val\_loss: 3.0507 - val\_acc: 0.2629  
Epoch 2/50  
190/190 [=====] - 53s 277ms/step - loss: 1.7398 - acc: 0.2708

Epoch 00002: saving model to /content/drive/My Drive/images/models/model\_ex-002\_acc-0.270823.h5  
757/757 [=====] - 754s 995ms/step - loss: 1.5735 - acc: 0.4360 - val\_loss: 1.7398 - val\_acc: 0.2708  
Epoch 3/50  
190/190 [=====] - 52s 275ms/step - loss: 1.3116 - acc: 0.5101

Epoch 00003: saving model to /content/drive/My Drive/images/models/model\_ex-003\_acc-0.510144.h5  
757/757 [=====] - 754s 996ms/step - loss: 1.2863 - acc: 0.5405 - val\_loss: 1.3116 - val\_acc: 0.5101  
Epoch 4/50  
190/190 [=====] - 53s 277ms/step - loss: 1.4590 - acc: 0.4800

Epoch 00004: saving model to /content/drive/My Drive/images/models/model\_ex-004\_acc-0.479960.h5  
757/757 [=====] - 754s 996ms/step - loss: 1.1608 - acc: 0.5872 - val\_loss: 1.4590 - val\_acc: 0.4800  
Epoch 5/50  
190/190 [=====] - 52s 276ms/step - loss: 1.1376 - acc: 0.5990

Epoch 00005: saving model to /content/drive/My Drive/images/models/model\_ex-005\_acc-0.599043.h5  
757/757 [=====] - 756s 999ms/step - loss: 1.0775 - acc: 0.6219 - val\_loss: 1.1376 - val\_acc: 0.5990  
Epoch 6/50  
190/190 [=====] - 53s 281ms/step - loss: 1.1574 - acc: 0.5962

Epoch 00006: saving model to /content/drive/My Drive/images/models/model\_ex-006\_acc-0.596240.h5  
757/757 [=====] - 758s 1s/step - loss: 1.0282 - acc: 0.6400 - val\_loss: 1.1574 - val\_acc: 0.5962  
Epoch 7/50  
190/190 [=====] - 53s 278ms/step - loss: 1.1919 - acc: 0.5766

Epoch 00007: saving model to /content/drive/My Drive/images/models/model\_ex-007\_acc-0.576612.h5  
757/757 [=====] - 757s 1000ms/step - loss: 0.9828 - acc: 0.6620 - val\_loss: 1.1919 - val\_acc: 0.5766  
Epoch 8/50  
190/190 [=====] - 53s 280ms/step - loss: 1.0872 - acc: 0.6122

Epoch 00008: saving model to /content/drive/My Drive/images/models/model\_ex-008\_acc-0.612238.h5  
757/757 [=====] - 758s 1s/step - loss: 0.9473 - acc: 0.6751 - val\_loss: 1.0872 - val\_acc: 0.6122  
Epoch 9/50  
190/190 [=====] - 53s 277ms/step - loss: 1.0204 - acc: 0.6454

Epoch 00009: saving model to /content/drive/My Drive/images/models/model\_ex-009\_acc-0.645390.h5  
757/757 [=====] - 757s 1s/step - loss: 0.9218 - acc: 0.6816 - val\_loss: 1.0204 - val\_acc: 0.6454  
Epoch 10/50  
190/190 [=====] - 53s 277ms/step - loss: 0.9677 - acc: 0.6599

Epoch 00010: saving model to /content/drive/My Drive/images/models/model\_ex-010\_acc-0.659904.h5  
757/757 [=====] - 754s 996ms/step - loss: 0.8957 - acc: 0.6947 - val\_loss: 0.9677 - val\_acc: 0.6599  
Epoch 11/50  
190/190 [=====] - 52s 276ms/step - loss: 0.9704 - acc: 0.6592

Epoch 00011: saving model to /content/drive/My Drive/images/models/model\_ex-011\_acc-0.659245.h5  
757/757 [=====] - 754s 996ms/step - loss: 0.8728 - acc: 0.7020 - val\_loss: 0.9704 - val\_acc: 0.6592  
Epoch 12/50  
190/190 [=====] - 52s 276ms/step - loss: 0.9270 - acc: 0.6837

Epoch 00012: saving model to /content/drive/My Drive/images/models/model\_ex-012\_acc-0.683655.h5  
757/757 [=====] - 753s 995ms/step - loss: 0.8479 - acc: 0.7100 - val\_loss: 0.9270 - val\_acc: 0.6837  
Epoch 13/50  
190/190 [=====] - 52s 276ms/step - loss: 0.8683 - acc: 0.7006

Epoch 00013: saving model to /content/drive/My Drive/images/models/model\_ex-013\_acc-0.700643.h5  
757/757 [=====] - 754s 996ms/step - loss: 0.8350 - acc: 0.7159 - val\_loss: 0.8683 - val\_acc: 0.7006  
Epoch 14/50  
190/190 [=====] - 53s 280ms/step - loss: 0.8796 - acc: 0.6949

Epoch 00014: saving model to /content/drive/My Drive/images/models/model\_ex-014\_acc-0.694871.h5  
757/757 [=====] - 757s 1000ms/step - loss: 0.8157 - acc: 0.7203 - val\_loss: 0.8796 - val\_acc: 0.6949  
Epoch 15/50  
190/190 [=====] - 53s 279ms/step - loss: 1.1213 - acc: 0.6399

Epoch 00015: saving model to /content/drive/My Drive/images/models/model\_ex-015\_acc-0.639947.h5  
757/757 [=====] - 758s 1s/step - loss: 0.8008 - acc: 0.7269 - val\_loss: 1.1213 - val\_acc: 0.6399  
Epoch 16/50  
190/190 [=====] - 53s 280ms/step - loss: 0.8897 - acc: 0.6870

Epoch 00016: saving model to /content/drive/My Drive/images/models/model\_ex-016\_acc-0.686954.h5  
757/757 [=====] - 758s 1s/step - loss: 0.7800 - acc: 0.7395 - val\_loss: 0.8897 - val\_acc: 0.6870  
Epoch 17/50  
190/190 [=====] - 53s 278ms/step - loss: 0.9138 - acc: 0.6794

Epoch 00017: saving model to /content/drive/My Drive/images/models/model\_ex-017\_acc-0.679367.h5  
757/757 [=====] - 757s 999ms/step - loss: 0.7672 - acc: 0.7450 - val\_loss: 0.9138 - val\_acc: 0.6794  
Epoch 18/50  
190/190 [=====] - 53s 277ms/step - loss: 0.8601 - acc: 0.7058

Epoch 00018: saving model to /content/drive/My Drive/images/models/model\_ex-018\_acc-0.705756.h5  
757/757 [=====] - 756s 999ms/step - loss: 0.7558 - acc: 0.7483 - val\_loss: 0.8601 - val\_acc: 0.7058  
Epoch 19/50  
190/190 [=====] - 52s 274ms/step - loss: 0.9903 - acc: 0.6840

Epoch 00019: saving model to /content/drive/My Drive/images/models/model\_ex-019\_acc-0.683985.h5  
757/757 [=====] - 753s 994ms/step - loss: 0.7382 - acc: 0.7561 - val\_loss: 0.9903 - val\_acc: 0.6840  
Epoch 20/50  
190/190 [=====] - 53s 281ms/step - loss: 0.8162 - acc: 0.7244

Epoch 00020: saving model to /content/drive/My Drive/images/models/model\_ex-020\_acc-0.724394.h5  
757/757 [=====] - 759s 1s/step - loss: 0.7223 - acc: 0.7635 - val\_loss: 0.8162 - val\_acc: 0.7244  
Epoch 21/50  
190/190 [=====] - 53s 277ms/step - loss: 0.8098 - acc: 0.7297

Epoch 00021: saving model to /content/drive/My Drive/images/models/model\_ex-021\_acc-0.729672.h5  
757/757 [=====] - 757s 1000ms/step - loss: 0.7110 - acc: 0.7645 - val\_loss: 0.8098 - val\_acc: 0.7297  
Epoch 22/50  
190/190 [=====] - 53s 280ms/step - loss: 0.7635 - acc: 0.7458

Epoch 00022: saving model to /content/drive/My Drive/images/models/model\_ex-022\_acc-0.745835.h5  
757/757 [=====] - 758s 1s/step - loss: 0.6347 - acc: 0.7963 - val\_loss: 0.7635 - val\_acc: 0.7458  
Epoch 23/50  
190/190 [=====] - 53s 279ms/step - loss: 0.7662 - acc: 0.7518

Epoch 00023: saving model to /content/drive/My Drive/images/models/model\_ex-023\_acc-0.751773.h5  
757/757 [=====] - 759s 1s/step - loss: 0.6029 - acc: 0.8059 - val\_loss: 0.7662 - val\_acc: 0.7518  
Epoch 24/50  
190/190 [=====] - 53s 280ms/step - loss: 0.7676 - acc: 0.7483

Epoch 00024: saving model to /content/drive/My Drive/images/models/model\_ex-024\_acc-0.748309.h5  
757/757 [=====] - 757s 1000ms/step - loss: 0.5854 - acc: 0.8153 - val\_loss: 0.7676 - val\_acc: 0.7483  
Epoch 25/50  
190/190 [=====] - 53s 278ms/step - loss: 0.7762 - acc: 0.7503

Epoch 00025: saving model to /content/drive/My Drive/images/models/model\_ex-025\_acc-0.750289.h5  
757/757 [=====] - 758s 1s/step - loss: 0.5763 - acc: 0.8169 - val\_loss: 0.7762 - val\_acc: 0.7503  
Epoch 26/50  
190/190 [=====] - 53s 280ms/step - loss: 0.7844 - acc: 0.7505

Epoch 00026: saving model to /content/drive/My Drive/images/models/model\_ex-026\_acc-0.750454.h5  
757/757 [=====] - 757s 1000ms/step - loss: 0.5649 - acc: 0.8229 - val\_loss: 0.7844 - val\_acc: 0.7505  
Epoch 27/50  
190/190 [=====] - 53s 278ms/step - loss: 0.7737 - acc: 0.7493

Epoch 00027: saving model to /content/drive/My Drive/images/models/model\_ex-027\_acc-0.749299.h5  
757/757 [=====] - 757s 1s/step - loss: 0.5578 - acc: 0.8242 - val\_loss: 0.7737 - val\_acc: 0.7493  
Epoch 28/50  
190/190 [=====] - 53s 279ms/step - loss: 0.7781 - acc: 0.7485

Epoch 00028: saving model to /content/drive/My Drive/images/models/model\_ex-028\_acc-0.748474.h5  
757/757 [=====] - 757s 1000ms/step - loss: 0.5496 - acc: 0.8288 - val\_loss: 0.7781 - val\_acc: 0.7485  
Epoch 29/50  
190/190 [=====] - 53s 278ms/step - loss: 0.7765 - acc: 0.7500

Epoch 00029: saving model to /content/drive/My Drive/images/models/model\_ex-029\_acc-0.749959.h5  
757/757 [=====] - 756s 999ms/step - loss: 0.5410 - acc: 0.8303 - val\_loss: 0.7765 - val\_acc: 0.7500  
Epoch 30/50  
190/190 [=====] - 53s 281ms/step - loss: 0.7863 - acc: 0.7475

Epoch 00030: saving model to /content/drive/My Drive/images/models/model\_ex-030\_acc-0.747485.h5  
757/757 [=====] - 756s 999ms/step - loss: 0.5254 - acc: 0.8363 - val\_loss: 0.7863 - val\_acc: 0.7475  
Epoch 31/50  
190/190 [=====] - 53s 279ms/step - loss: 0.7895 - acc: 0.7486

Epoch 00031: saving model to /content/drive/My Drive/images/models/model\_ex-031\_acc-0.748639.h5  
757/757 [=====] - 756s 998ms/step - loss: 0.5251 - acc: 0.8385 - val\_loss: 0.7895 - val\_acc: 0.7486  
Epoch 32/50  
190/190 [=====] - 53s 280ms/step - loss: 0.7847 - acc: 0.7511

Epoch 00032: saving model to /content/drive/My Drive/images/models/model\_ex-032\_acc-0.751113.h5  
757/757 [=====] - 757s 1000ms/step - loss: 0.5094 - acc: 0.8424 - val\_loss: 0.7847 - val\_acc: 0.7511  
Epoch 33/50  
190/190 [=====] - 53s 279ms/step - loss: 0.7857 - acc: 0.7506

Epoch 00033: saving model to /content/drive/My Drive/images/models/model\_ex-033\_acc-0.750619.h5  
757/757 [=====] - 757s 1s/step - loss: 0.5050 - acc: 0.8418 - val\_loss: 0.7857 - val\_acc: 0.7506  
Epoch 34/50  
190/190 [=====] - 53s 281ms/step - loss: 0.7876 - acc: 0.7501

Epoch 00034: saving model to /content/drive/My Drive/images/models/model\_ex-034\_acc-0.750124.h5  
757/757 [=====] - 758s 1s/step - loss: 0.5030 - acc: 0.8453 - val\_loss: 0.7876 - val\_acc: 0.7501  
Epoch 35/50  
190/190 [=====] - 53s 277ms/step - loss: 0.7856 - acc: 0.7506

Epoch 00035: saving model to /content/drive/My Drive/images/models/model\_ex-035\_acc-0.750619.h5  
757/757 [=====] - 757s 999ms/step - loss: 0.5039 - acc: 0.8450 - val\_loss: 0.7856 - val\_acc: 0.7506  
Epoch 36/50  
190/190 [=====] - 53s 279ms/step - loss: 0.7863 - acc: 0.7518

Epoch 00036: saving model to /content/drive/My Drive/images/models/model\_ex-036\_acc-0.751773.h5  
757/757 [=====] - 757s 1s/step - loss: 0.4995 - acc: 0.8495 - val\_loss: 0.7863 - val\_acc: 0.7518  
Epoch 37/50  
172/190 [=====>...] - ETA: 5s - loss: 0.7924 - acc: 0.7478