Res34_112*112:

Epoch 1/200

97/97 [==============================] - 23s 125ms/step - loss: 1.7133 - sparse_categorical_accuracy: 0.4322 - val_loss: 9.8560 - val_sparse_categorical_accuracy: 0.1000

Epoch 2/200

97/97 [==============================] - 11s 110ms/step - loss: 1.3606 - sparse_categorical_accuracy: 0.5412 - val_loss: 3.7415 - val_sparse_categorical_accuracy: 0.1227

Epoch 3/200

97/97 [==============================] - 11s 111ms/step - loss: 1.1990 - sparse_categorical_accuracy: 0.5925 - val_loss: 2.8399 - val_sparse_categorical_accuracy: 0.2016

Epoch 4/200

97/97 [==============================] - 11s 114ms/step - loss: 1.1016 - sparse_categorical_accuracy: 0.6336 - val_loss: 2.6241 - val_sparse_categorical_accuracy: 0.2234

Epoch 5/200

97/97 [==============================] - 11s 110ms/step - loss: 0.9950 - sparse_categorical_accuracy: 0.6698 - val_loss: 2.4641 - val_sparse_categorical_accuracy: 0.4133

Epoch 6/200

97/97 [==============================] - 11s 114ms/step - loss: 0.8770 - sparse_categorical_accuracy: 0.7085 - val_loss: 2.0296 - val_sparse_categorical_accuracy: 0.4023

Epoch 7/200

97/97 [==============================] - 11s 110ms/step - loss: 0.7849 - sparse_categorical_accuracy: 0.7384 - val_loss: 2.1549 - val_sparse_categorical_accuracy: 0.4883

Epoch 8/200

97/97 [==============================] - 11s 113ms/step - loss: 0.6845 - sparse_categorical_accuracy: 0.7682 - val_loss: 2.0465 - val_sparse_categorical_accuracy: 0.4664

Epoch 9/200

97/97 [==============================] - 11s 111ms/step - loss: 0.6174 - sparse_categorical_accuracy: 0.7889 - val_loss: 1.7178 - val_sparse_categorical_accuracy: 0.5203

Epoch 10/200

97/97 [==============================] - 11s 110ms/step - loss: 0.5029 - sparse_categorical_accuracy: 0.8271 - val_loss: 2.0167 - val_sparse_categorical_accuracy: 0.5086

Epoch 11/200

97/97 [==============================] - 11s 110ms/step - loss: 0.4068 - sparse_categorical_accuracy: 0.8577 - val_loss: 1.8566 - val_sparse_categorical_accuracy: 0.5164

Epoch 12/200

97/97 [==============================] - 11s 115ms/step - loss: 0.3207 - sparse_categorical_accuracy: 0.8913 - val_loss: 2.6389 - val_sparse_categorical_accuracy: 0.4453

Epoch 13/200

97/97 [==============================] - 11s 113ms/step - loss: 0.2779 - sparse_categorical_accuracy: 0.9053 - val_loss: 1.4020 - val_sparse_categorical_accuracy: 0.6375

Epoch 14/200

97/97 [==============================] - 11s 113ms/step - loss: 0.2162 - sparse_categorical_accuracy: 0.9252 - val_loss: 2.1764 - val_sparse_categorical_accuracy: 0.5289

Epoch 15/200

97/97 [==============================] - 11s 113ms/step - loss: 0.1729 - sparse_categorical_accuracy: 0.9403 - val_loss: 2.1230 - val_sparse_categorical_accuracy: 0.5578

Epoch 16/200

97/97 [==============================] - 11s 114ms/step - loss: 0.1348 - sparse_categorical_accuracy: 0.9546 - val_loss: 1.3933 - val_sparse_categorical_accuracy: 0.6687

Epoch 17/200

97/97 [==============================] - 11s 112ms/step - loss: 0.1140 - sparse_categorical_accuracy: 0.9627 - val_loss: 1.9936 - val_sparse_categorical_accuracy: 0.6227

Epoch 18/200

97/97 [==============================] - 11s 110ms/step - loss: 0.1025 - sparse_categorical_accuracy: 0.9675 - val_loss: 1.6646 - val_sparse_categorical_accuracy: 0.6523

Epoch 19/200

97/97 [==============================] - 11s 114ms/step - loss: 0.1026 - sparse_categorical_accuracy: 0.9671 - val_loss: 2.8933 - val_sparse_categorical_accuracy: 0.4867

Epoch 20/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0846 - sparse_categorical_accuracy: 0.9718 - val_loss: 2.5096 - val_sparse_categorical_accuracy: 0.6008

Epoch 21/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0784 - sparse_categorical_accuracy: 0.9741 - val_loss: 3.1329 - val_sparse_categorical_accuracy: 0.5258

Epoch 22/200

97/97 [==============================] - 11s 112ms/step - loss: 0.0786 - sparse_categorical_accuracy: 0.9731 - val_loss: 2.2185 - val_sparse_categorical_accuracy: 0.6234

Epoch 23/200

97/97 [==============================] - 11s 114ms/step - loss: 0.0694 - sparse_categorical_accuracy: 0.9778 - val_loss: 2.1335 - val_sparse_categorical_accuracy: 0.6359

Epoch 24/200

97/97 [==============================] - 11s 109ms/step - loss: 0.0526 - sparse_categorical_accuracy: 0.9819 - val_loss: 2.3713 - val_sparse_categorical_accuracy: 0.5789

Epoch 25/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0548 - sparse_categorical_accuracy: 0.9823 - val_loss: 1.9741 - val_sparse_categorical_accuracy: 0.6578

Epoch 26/200

97/97 [==============================] - 11s 111ms/step - loss: 0.0549 - sparse_categorical_accuracy: 0.9815 - val_loss: 2.5619 - val_sparse_categorical_accuracy: 0.5766

Epoch 27/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0659 - sparse_categorical_accuracy: 0.9787 - val_loss: 2.0323 - val_sparse_categorical_accuracy: 0.6125

Epoch 28/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0484 - sparse_categorical_accuracy: 0.9855 - val_loss: 2.0938 - val_sparse_categorical_accuracy: 0.6438

Epoch 29/200

97/97 [==============================] - 11s 114ms/step - loss: 0.0469 - sparse_categorical_accuracy:

0.9850 - val_loss: 2.4769 - val_sparse_categorical_accuracy: 0.5938

Epoch 30/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0287 - sparse_categorical_accuracy: 0.9900 - val_loss: 1.9432 - val_sparse_categorical_accuracy: 0.6695

Epoch 31/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0579 - sparse_categorical_accuracy: 0.9792 - val_loss: 1.9462 - val_sparse_categorical_accuracy: 0.6680

Epoch 32/200

97/97 [==============================] - 11s 114ms/step - loss: 0.0482 - sparse_categorical_accuracy: 0.9849 - val_loss: 2.1498 - val_sparse_categorical_accuracy: 0.6234

Epoch 33/200

97/97 [==============================] - 11s 112ms/step - loss: 0.0406 - sparse_categorical_accuracy: 0.9869 - val_loss: 2.0756 - val_sparse_categorical_accuracy: 0.6508

Epoch 34/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0350 - sparse_categorical_accuracy: 0.9890 - val_loss: 1.8654 - val_sparse_categorical_accuracy: 0.6812

Epoch 35/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0855 - sparse_categorical_accuracy: 0.9735 - val_loss: 2.0820 - val_sparse_categorical_accuracy: 0.6438

Epoch 36/200

97/97 [==============================] - 11s 114ms/step - loss: 0.0221 - sparse_categorical_accuracy: 0.9936 - val_loss: 1.7442 - val_sparse_categorical_accuracy: 0.6664

Epoch 37/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0246 - sparse_categorical_accuracy: 0.9924 - val_loss: 1.8710 - val_sparse_categorical_accuracy: 0.6945

Epoch 38/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0274 - sparse_categorical_accuracy: 0.9907 - val_loss: 3.1674 - val_sparse_categorical_accuracy: 0.5656

Epoch 39/200

97/97 [==============================] - 11s 111ms/step - loss: 0.0762 - sparse_categorical_accuracy: 0.9752 - val_loss: 2.6762 - val_sparse_categorical_accuracy: 0.5969

Epoch 40/200

97/97 [==============================] - 11s 112ms/step - loss: 0.0371 - sparse_categorical_accuracy: 0.9877 - val_loss: 1.8678 - val_sparse_categorical_accuracy: 0.6531

Epoch 41/200

97/97 [==============================] - 11s 112ms/step - loss: 0.0342 - sparse_categorical_accuracy: 0.9886 - val_loss: 2.2452 - val_sparse_categorical_accuracy: 0.6359

Epoch 42/200

97/97 [==============================] - 11s 114ms/step - loss: 0.0252 - sparse_categorical_accuracy: 0.9907 - val_loss: 2.3045 - val_sparse_categorical_accuracy: 0.6352

Epoch 43/200

97/97 [==============================] - 11s 109ms/step - loss: 0.0313 - sparse_categorical_accuracy: 0.9898 - val_loss: 2.0475 - val_sparse_categorical_accuracy: 0.6602

Epoch 44/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0361 - sparse_categorical_accuracy: 0.9886 - val_loss: 2.3138 - val_sparse_categorical_accuracy: 0.6422

Epoch 45/200

97/97 [==============================] - 11s 114ms/step - loss: 0.0533 - sparse_categorical_accuracy: 0.9817 - val_loss: 2.4960 - val_sparse_categorical_accuracy: 0.5844

Epoch 46/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0646 - sparse_categorical_accuracy: 0.9793 - val_loss: 1.9244 - val_sparse_categorical_accuracy: 0.6680

Epoch 47/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0337 - sparse_categorical_accuracy: 0.9882 - val_loss: 2.3971 - val_sparse_categorical_accuracy: 0.6297

Epoch 48/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0249 - sparse_categorical_accuracy: 0.9911 - val_loss: 2.8387 - val_sparse_categorical_accuracy: 0.5883

Epoch 49/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0211 - sparse_categorical_accuracy: 0.9935 - val_loss: 1.7034 - val_sparse_categorical_accuracy: 0.6977

Epoch 50/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0123 - sparse_categorical_accuracy: 0.9956 - val_loss: 2.0020 - val_sparse_categorical_accuracy: 0.6773

Epoch 51/200

97/97 [==============================] - 11s 114ms/step - loss: 0.0395 - sparse_categorical_accuracy: 0.9879 - val_loss: 2.2104 - val_sparse_categorical_accuracy: 0.6391

Epoch 52/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0323 - sparse_categorical_accuracy: 0.9887 - val_loss: 1.8789 - val_sparse_categorical_accuracy: 0.6539

Epoch 53/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0132 - sparse_categorical_accuracy: 0.9955 - val_loss: 2.0523 - val_sparse_categorical_accuracy: 0.6664

Epoch 54/200

97/97 [==============================] - 11s 111ms/step - loss: 0.0097 - sparse_categorical_accuracy: 0.9963 - val_loss: 2.0526 - val_sparse_categorical_accuracy: 0.6703

Epoch 55/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0482 - sparse_categorical_accuracy: 0.9846 - val_loss: 3.5521 - val_sparse_categorical_accuracy: 0.5328

Epoch 56/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0293 - sparse_categorical_accuracy: 0.9905 - val_loss: 1.9197 - val_sparse_categorical_accuracy: 0.6602

Epoch 57/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0240 - sparse_categorical_accuracy: 0.9920 - val_loss: 3.1987 - val_sparse_categorical_accuracy: 0.5883

Epoch 58/200

97/97 [==============================] - 11s 111ms/step - loss: 0.0361 - sparse_categorical_accuracy: 0.9878 - val_loss: 2.0959 - val_sparse_categorical_accuracy: 0.6602

Epoch 59/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0253 - sparse_categorical_accuracy: 0.9912 - val_loss: 2.0444 - val_sparse_categorical_accuracy: 0.6742

Epoch 60/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0518 - sparse_categorical_accuracy: 0.9839 - val_loss: 2.2419 - val_sparse_categorical_accuracy: 0.6141

Epoch 61/200

97/97 [==============================] - 11s 111ms/step - loss: 0.0110 - sparse_categorical_accuracy: 0.9961 - val_loss: 1.7255 - val_sparse_categorical_accuracy: 0.6992

Epoch 62/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0166 - sparse_categorical_accuracy: 0.9949 - val_loss: 4.4835 - val_sparse_categorical_accuracy: 0.4602

Epoch 63/200

97/97 [==============================] - 11s 112ms/step - loss: 0.0304 - sparse_categorical_accuracy: 0.9896 - val_loss: 1.9420 - val_sparse_categorical_accuracy: 0.6867

Epoch 64/200

97/97 [==============================] - 11s 114ms/step - loss: 0.0232 - sparse_categorical_accuracy: 0.9920 - val_loss: 2.7601 - val_sparse_categorical_accuracy: 0.6180

Epoch 65/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0308 - sparse_categorical_accuracy: 0.9898 - val_loss: 2.1874 - val_sparse_categorical_accuracy: 0.6445

Epoch 66/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0190 - sparse_categorical_accuracy: 0.9931 - val_loss: 2.0777 - val_sparse_categorical_accuracy: 0.6562

Epoch 67/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0194 - sparse_categorical_accuracy: 0.9930 - val_loss: 2.1363 - val_sparse_categorical_accuracy: 0.6539

Epoch 68/200

97/97 [==============================] - 11s 111ms/step - loss: 0.0226 - sparse_categorical_accuracy: 0.9916 - val_loss: 2.8528 - val_sparse_categorical_accuracy: 0.5992

Epoch 69/200

97/97 [==============================] - 11s 112ms/step - loss: 0.0214 - sparse_categorical_accuracy: 0.9928 - val_loss: 2.9919 - val_sparse_categorical_accuracy: 0.6016

Epoch 70/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0311 - sparse_categorical_accuracy: 0.9891 - val_loss: 4.5459 - val_sparse_categorical_accuracy: 0.4617

Epoch 71/200

97/97 [==============================] - 11s 111ms/step - loss: 0.0524 - sparse_categorical_accuracy: 0.9847 - val_loss: 2.1931 - val_sparse_categorical_accuracy: 0.6289

Epoch 72/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0182 - sparse_categorical_accuracy: 0.9941 - val_loss: 2.6587 - val_sparse_categorical_accuracy: 0.5586

Epoch 73/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0243 - sparse_categorical_accuracy:

0.9912 - val_loss: 1.7972 - val_sparse_categorical_accuracy: 0.6641

Epoch 74/200

97/97 [==============================] - 11s 111ms/step - loss: 0.0123 - sparse_categorical_accuracy: 0.9959 - val_loss: 3.1174 - val_sparse_categorical_accuracy: 0.5437

Epoch 75/200

97/97 [==============================] - 11s 109ms/step - loss: 0.0091 - sparse_categorical_accuracy: 0.9967 - val_loss: 1.9796 - val_sparse_categorical_accuracy: 0.6891

Epoch 76/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0037 - sparse_categorical_accuracy: 0.9986 - val_loss: 1.7796 - val_sparse_categorical_accuracy: 0.7125

Epoch 77/200

97/97 [==============================] - 11s 111ms/step - loss: 0.0031 - sparse_categorical_accuracy: 0.9983 - val_loss: 1.8255 - val_sparse_categorical_accuracy: 0.7125

Epoch 78/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0025 - sparse_categorical_accuracy: 0.9986 - val_loss: 2.0469 - val_sparse_categorical_accuracy: 0.6922

Epoch 79/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0022 - sparse_categorical_accuracy: 0.9985 - val_loss: 1.7503 - val_sparse_categorical_accuracy: 0.7227

Epoch 80/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0018 - sparse_categorical_accuracy: 0.9991 - val_loss: 1.7614 - val_sparse_categorical_accuracy: 0.7195

Epoch 81/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0096 - sparse_categorical_accuracy: 0.9968 - val_loss: 2.7375 - val_sparse_categorical_accuracy: 0.6211

Epoch 82/200

97/97 [==============================] - 11s 112ms/step - loss: 0.0328 - sparse_categorical_accuracy: 0.9886 - val_loss: 3.4918 - val_sparse_categorical_accuracy: 0.5359

Epoch 83/200

97/97 [==============================] - 11s 111ms/step - loss: 0.0587 - sparse_categorical_accuracy: 0.9797 - val_loss: 3.0306 - val_sparse_categorical_accuracy: 0.5578

Epoch 84/200

97/97 [==============================] - 11s 112ms/step - loss: 0.0514 - sparse_categorical_accuracy: 0.9808 - val_loss: 2.6714 - val_sparse_categorical_accuracy: 0.5914

Epoch 85/200

97/97 [==============================] - 11s 109ms/step - loss: 0.0391 - sparse_categorical_accuracy: 0.9857 - val_loss: 1.9086 - val_sparse_categorical_accuracy: 0.6711

Epoch 86/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0217 - sparse_categorical_accuracy: 0.9921 - val_loss: 2.3996 - val_sparse_categorical_accuracy: 0.6172

Epoch 87/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0148 - sparse_categorical_accuracy: 0.9948 - val_loss: 1.9614 - val_sparse_categorical_accuracy: 0.6547

Epoch 88/200

97/97 [==============================] - 11s 112ms/step - loss: 0.0087 - sparse_categorical_accuracy: 0.9966 - val_loss: 2.0051 - val_sparse_categorical_accuracy: 0.6680

Epoch 89/200

97/97 [==============================] - 11s 111ms/step - loss: 0.0069 - sparse_categorical_accuracy: 0.9972 - val_loss: 2.2036 - val_sparse_categorical_accuracy: 0.6438

Epoch 90/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0064 - sparse_categorical_accuracy: 0.9978 - val_loss: 1.9167 - val_sparse_categorical_accuracy: 0.6977

Epoch 91/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0031 - sparse_categorical_accuracy: 0.9985 - val_loss: 1.9195 - val_sparse_categorical_accuracy: 0.6891

Epoch 92/200

97/97 [==============================] - 11s 114ms/step - loss: 0.0028 - sparse_categorical_accuracy: 0.9984 - val_loss: 1.8313 - val_sparse_categorical_accuracy: 0.7063

Epoch 93/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0018 - sparse_categorical_accuracy: 0.9993 - val_loss: 1.8888 - val_sparse_categorical_accuracy: 0.7023

Epoch 94/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0017 - sparse_categorical_accuracy: 0.9985 - val_loss: 1.7435 - val_sparse_categorical_accuracy: 0.7125

Epoch 95/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0018 - sparse_categorical_accuracy: 0.9988 - val_loss: 1.7607 - val_sparse_categorical_accuracy: 0.7102

Epoch 96/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0017 - sparse_categorical_accuracy: 0.9991 - val_loss: 1.7441 - val_sparse_categorical_accuracy: 0.7188

Epoch 97/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0018 - sparse_categorical_accuracy: 0.9986 - val_loss: 1.7388 - val_sparse_categorical_accuracy: 0.7180

Epoch 98/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0016 - sparse_categorical_accuracy: 0.9989 - val_loss: 1.7397 - val_sparse_categorical_accuracy: 0.7148

Epoch 99/200

97/97 [==============================] - 11s 109ms/step - loss: 0.0015 - sparse_categorical_accuracy: 0.9989 - val_loss: 1.7215 - val_sparse_categorical_accuracy: 0.7141

Epoch 105/200

97/97 [==============================] - 11s 109ms/step - loss: 0.0016 - sparse_categorical_accuracy: 0.9992 - val_loss: 1.7304 - val_sparse_categorical_accuracy: 0.7188

Epoch 106/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0016 - sparse_categorical_accuracy: 0.9986 - val_loss: 1.7351 - val_sparse_categorical_accuracy: 0.7211

Epoch 107/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0017 - sparse_categorical_accuracy: 0.9987 - val_loss: 1.7327 - val_sparse_categorical_accuracy: 0.7164

Epoch 108/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0017 - sparse_categorical_accuracy: 0.9987 - val_loss: 1.7342 - val_sparse_categorical_accuracy: 0.7188

Epoch 109/200

97/97 [==============================] - 11s 114ms/step - loss: 0.0016 - sparse_categorical_accuracy: 0.9989 - val_loss: 1.7209 - val_sparse_categorical_accuracy: 0.7172

Epoch 110/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0016 - sparse_categorical_accuracy: 0.9993 - val_loss: 1.7405 - val_sparse_categorical_accuracy: 0.7211

Epoch 111/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0019 - sparse_categorical_accuracy: 0.9989 - val_loss: 1.7217 - val_sparse_categorical_accuracy: 0.7180

Epoch 112/200

97/97 [==============================] - 11s 111ms/step - loss: 0.0016 - sparse_categorical_accuracy: 0.9989 - val_loss: 1.6793 - val_sparse_categorical_accuracy: 0.7203

Epoch 113/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0015 - sparse_categorical_accuracy: 0.9991 - val_loss: 1.6746 - val_sparse_categorical_accuracy: 0.7180

Epoch 114/200

97/97 [==============================] - 11s 109ms/step - loss: 0.0015 - sparse_categorical_accuracy: 0.9989 - val_loss: 1.6730 - val_sparse_categorical_accuracy: 0.7211

Epoch 115/200

97/97 [==============================] - 11s 114ms/step - loss: 0.2232 - sparse_categorical_accuracy: 0.9295 - val_loss: 3.5165 - val_sparse_categorical_accuracy: 0.4625

Epoch 116/200

97/97 [==============================] - 11s 110ms/step - loss: 0.1077 - sparse_categorical_accuracy: 0.9654 - val_loss: 1.7211 - val_sparse_categorical_accuracy: 0.6469

Epoch 117/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0332 - sparse_categorical_accuracy: 0.9888 - val_loss: 1.7244 - val_sparse_categorical_accuracy: 0.6461

Epoch 118/200

97/97 [==============================] - 11s 114ms/step - loss: 0.0110 - sparse_categorical_accuracy: 0.9959 - val_loss: 1.9136 - val_sparse_categorical_accuracy: 0.6633

Epoch 119/200

97/97 [==============================] - 11s 109ms/step - loss: 0.0068 - sparse_categorical_accuracy: 0.9971 - val_loss: 1.8971 - val_sparse_categorical_accuracy: 0.6508

Epoch 120/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0053 - sparse_categorical_accuracy: 0.9976 - val_loss: 2.1526 - val_sparse_categorical_accuracy: 0.6500

Epoch 121/200

97/97 [==============================] - 11s 111ms/step - loss: 0.0036 - sparse_categorical_accuracy: 0.9981 - val_loss: 1.8208 - val_sparse_categorical_accuracy: 0.6914

Epoch 122/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0574 - sparse_categorical_accuracy:

0.9834 - val_loss: 8.6309 - val_sparse_categorical_accuracy: 0.2305

Epoch 123/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0716 - sparse_categorical_accuracy: 0.9792 - val_loss: 1.9529 - val_sparse_categorical_accuracy: 0.6367

Epoch 124/200

97/97 [==============================] - 11s 115ms/step - loss: 0.0201 - sparse_categorical_accuracy: 0.9927 - val_loss: 1.7823 - val_sparse_categorical_accuracy: 0.6703

Epoch 125/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0066 - sparse_categorical_accuracy: 0.9977 - val_loss: 1.7719 - val_sparse_categorical_accuracy: 0.6828

Epoch 126/200

97/97 [==============================] - 11s 112ms/step - loss: 0.0040 - sparse_categorical_accuracy: 0.9984 - val_loss: 1.8376 - val_sparse_categorical_accuracy: 0.6781

Epoch 127/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0019 - sparse_categorical_accuracy: 0.9986 - val_loss: 1.6196 - val_sparse_categorical_accuracy: 0.7023

Epoch 128/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0019 - sparse_categorical_accuracy: 0.9987 - val_loss: 1.6917 - val_sparse_categorical_accuracy: 0.6969

Epoch 129/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0017 - sparse_categorical_accuracy: 0.9989 - val_loss: 1.6454 - val_sparse_categorical_accuracy: 0.7008

Epoch 130/200

97/97 [==============================] - 11s 112ms/step - loss: 0.0017 - sparse_categorical_accuracy: 0.9985 - val_loss: 1.6519 - val_sparse_categorical_accuracy: 0.7039

Epoch 131/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0015 - sparse_categorical_accuracy: 0.9993 - val_loss: 1.6724 - val_sparse_categorical_accuracy: 0.7055

Epoch 132/200

97/97 [==============================] - 11s 109ms/step - loss: 0.0016 - sparse_categorical_accuracy: 0.9989 - val_loss: 1.7067 - val_sparse_categorical_accuracy: 0.7016

Epoch 133/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0017 - sparse_categorical_accuracy: 0.9985 - val_loss: 1.6982 - val_sparse_categorical_accuracy: 0.7086

Epoch 134/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0017 - sparse_categorical_accuracy: 0.9988 - val_loss: 1.6950 - val_sparse_categorical_accuracy: 0.6969

Epoch 135/200

97/97 [==============================] - 11s 109ms/step - loss: 0.0017 - sparse_categorical_accuracy: 0.9986 - val_loss: 1.6912 - val_sparse_categorical_accuracy: 0.7102

Epoch 136/200

97/97 [==============================] - 11s 112ms/step - loss: 0.0017 - sparse_categorical_accuracy: 0.9985 - val_loss: 1.7053 - val_sparse_categorical_accuracy: 0.7195

Epoch 137/200

97/97 [==============================] - 11s 109ms/step - loss: 0.0015 - sparse_categorical_accuracy: 0.9988 - val_loss: 1.7331 - val_sparse_categorical_accuracy: 0.7148

Epoch 138/200

97/97 [==============================] - 11s 114ms/step - loss: 0.0016 - sparse_categorical_accuracy: 0.9989 - val_loss: 1.7225 - val_sparse_categorical_accuracy: 0.7148

Epoch 139/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0015 - sparse_categorical_accuracy: 0.9987 - val_loss: 1.7141 - val_sparse_categorical_accuracy: 0.7172

Epoch 140/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0016 - sparse_categorical_accuracy: 0.9989 - val_loss: 1.7089 - val_sparse_categorical_accuracy: 0.7156

Epoch 141/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0016 - sparse_categorical_accuracy: 0.9989 - val_loss: 1.7148 - val_sparse_categorical_accuracy: 0.7141

Epoch 142/200

97/97 [==============================] - 11s 112ms/step - loss: 0.0015 - sparse_categorical_accuracy: 0.9991 - val_loss: 1.7667 - val_sparse_categorical_accuracy: 0.7109

Epoch 143/200

97/97 [==============================] - 11s 109ms/step - loss: 0.0016 - sparse_categorical_accuracy: 0.9990 - val_loss: 1.7915 - val_sparse_categorical_accuracy: 0.7133

Epoch 144/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0018 - sparse_categorical_accuracy: 0.9988 - val_loss: 1.7721 - val_sparse_categorical_accuracy: 0.7141

Epoch 145/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0015 - sparse_categorical_accuracy: 0.9989 - val_loss: 1.7102 - val_sparse_categorical_accuracy: 0.7141

Epoch 146/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0032 - sparse_categorical_accuracy: 0.9981 - val_loss: 2.0118 - val_sparse_categorical_accuracy: 0.6797

Epoch 147/200

97/97 [==============================] - 11s 114ms/step - loss: 0.1294 - sparse_categorical_accuracy: 0.9589 - val_loss: 6.4271 - val_sparse_categorical_accuracy: 0.3234

Epoch 148/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0520 - sparse_categorical_accuracy: 0.9824 - val_loss: 2.1628 - val_sparse_categorical_accuracy: 0.6555

Epoch 149/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0171 - sparse_categorical_accuracy: 0.9939 - val_loss: 1.9227 - val_sparse_categorical_accuracy: 0.6711

Epoch 150/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0119 - sparse_categorical_accuracy: 0.9955 - val_loss: 1.6972 - val_sparse_categorical_accuracy: 0.6883

Epoch 151/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0154 - sparse_categorical_accuracy: 0.9950 - val_loss: 2.1521 - val_sparse_categorical_accuracy: 0.6547

Epoch 152/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0203 - sparse_categorical_accuracy: 0.9934 - val_loss: 2.1977 - val_sparse_categorical_accuracy: 0.6523

Epoch 153/200

97/97 [==============================] - 11s 114ms/step - loss: 0.0084 - sparse_categorical_accuracy: 0.9964 - val_loss: 1.8364 - val_sparse_categorical_accuracy: 0.6938

Epoch 154/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0063 - sparse_categorical_accuracy: 0.9973 - val_loss: 2.3314 - val_sparse_categorical_accuracy: 0.6453

Epoch 155/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0054 - sparse_categorical_accuracy: 0.9972 - val_loss: 1.8036 - val_sparse_categorical_accuracy: 0.7000

Epoch 156/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0024 - sparse_categorical_accuracy: 0.9985 - val_loss: 1.7819 - val_sparse_categorical_accuracy: 0.7047

Epoch 157/200

97/97 [==============================] - 11s 111ms/step - loss: 0.0017 - sparse_categorical_accuracy: 0.9987 - val_loss: 1.7707 - val_sparse_categorical_accuracy: 0.7227

Epoch 158/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0016 - sparse_categorical_accuracy: 0.9988 - val_loss: 1.7806 - val_sparse_categorical_accuracy: 0.7312

Epoch 159/200

97/97 [==============================] - 11s 112ms/step - loss: 0.0016 - sparse_categorical_accuracy: 0.9989 - val_loss: 1.7743 - val_sparse_categorical_accuracy: 0.7266

Epoch 160/200

97/97 [==============================] - 11s 109ms/step - loss: 0.0016 - sparse_categorical_accuracy: 0.9988 - val_loss: 1.7743 - val_sparse_categorical_accuracy: 0.7305

Epoch 161/200

97/97 [==============================] - 11s 111ms/step - loss: 0.0016 - sparse_categorical_accuracy: 0.9987 - val_loss: 1.7901 - val_sparse_categorical_accuracy: 0.7328

Epoch 162/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0015 - sparse_categorical_accuracy: 0.9989 - val_loss: 1.7908 - val_sparse_categorical_accuracy: 0.7320

Epoch 163/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0016 - sparse_categorical_accuracy: 0.9989 - val_loss: 1.7935 - val_sparse_categorical_accuracy: 0.7305

Epoch 164/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0015 - sparse_categorical_accuracy: 0.9987 - val_loss: 1.8017 - val_sparse_categorical_accuracy: 0.7297

Epoch 165/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0015 - sparse_categorical_accuracy: 0.9987 - val_loss: 1.7931 - val_sparse_categorical_accuracy: 0.7312

Epoch 166/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0015 - sparse_categorical_accuracy:

0.9986 - val_loss: 1.8019 - val_sparse_categorical_accuracy: 0.7320

Epoch 167/200

97/97 [==============================] - 11s 114ms/step - loss: 0.0016 - sparse_categorical_accuracy: 0.9986 - val_loss: 1.8065 - val_sparse_categorical_accuracy: 0.7320

Epoch 168/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0015 - sparse_categorical_accuracy: 0.9990 - val_loss: 1.8092 - val_sparse_categorical_accuracy: 0.7305

Epoch 169/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0016 - sparse_categorical_accuracy: 0.9987 - val_loss: 1.8153 - val_sparse_categorical_accuracy: 0.7336

Epoch 170/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0015 - sparse_categorical_accuracy: 0.9986 - val_loss: 1.8269 - val_sparse_categorical_accuracy: 0.7242

Epoch 171/200

97/97 [==============================] - 11s 109ms/step - loss: 0.0678 - sparse_categorical_accuracy: 0.9783 - val_loss: 6.2479 - val_sparse_categorical_accuracy: 0.3781

Epoch 172/200

97/97 [==============================] - 11s 112ms/step - loss: 0.0611 - sparse_categorical_accuracy: 0.9787 - val_loss: 2.0652 - val_sparse_categorical_accuracy: 0.6484

Epoch 173/200

97/97 [==============================] - 11s 111ms/step - loss: 0.0250 - sparse_categorical_accuracy: 0.9914 - val_loss: 2.5866 - val_sparse_categorical_accuracy: 0.5695

Epoch 174/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0128 - sparse_categorical_accuracy: 0.9956 - val_loss: 1.9322 - val_sparse_categorical_accuracy: 0.6750

Epoch 175/200

97/97 [==============================] - 11s 109ms/step - loss: 0.0024 - sparse_categorical_accuracy: 0.9989 - val_loss: 1.5657 - val_sparse_categorical_accuracy: 0.7227

Epoch 176/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0018 - sparse_categorical_accuracy: 0.9989 - val_loss: 1.7713 - val_sparse_categorical_accuracy: 0.6945

Epoch 177/200

97/97 [==============================] - 11s 109ms/step - loss: 0.0017 - sparse_categorical_accuracy: 0.9989 - val_loss: 1.6932 - val_sparse_categorical_accuracy: 0.7281

Epoch 178/200

97/97 [==============================] - 11s 109ms/step - loss: 0.0016 - sparse_categorical_accuracy: 0.9989 - val_loss: 1.6978 - val_sparse_categorical_accuracy: 0.7266

Epoch 179/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0016 - sparse_categorical_accuracy: 0.9986 - val_loss: 1.7051 - val_sparse_categorical_accuracy: 0.7328

Epoch 180/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0016 - sparse_categorical_accuracy: 0.9986 - val_loss: 1.7217 - val_sparse_categorical_accuracy: 0.7289

Epoch 181/200

97/97 [==============================] - 11s 109ms/step - loss: 0.0016 - sparse_categorical_accuracy: 0.9986 - val_loss: 1.7223 - val_sparse_categorical_accuracy: 0.7336

Epoch 182/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0015 - sparse_categorical_accuracy: 0.9990 - val_loss: 1.7209 - val_sparse_categorical_accuracy: 0.7344

Epoch 183/200

97/97 [==============================] - 11s 111ms/step - loss: 0.0016 - sparse_categorical_accuracy: 0.9990 - val_loss: 1.7163 - val_sparse_categorical_accuracy: 0.7297

Epoch 184/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0015 - sparse_categorical_accuracy: 0.9991 - val_loss: 1.7333 - val_sparse_categorical_accuracy: 0.7320

Epoch 185/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0028 - sparse_categorical_accuracy: 0.9985 - val_loss: 2.0927 - val_sparse_categorical_accuracy: 0.6992

Epoch 186/200

97/97 [==============================] - 11s 110ms/step - loss: 0.1031 - sparse_categorical_accuracy: 0.9675 - val_loss: 2.5408 - val_sparse_categorical_accuracy: 0.6258

Epoch 187/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0196 - sparse_categorical_accuracy: 0.9930 - val_loss: 2.2721 - val_sparse_categorical_accuracy: 0.6445

Epoch 188/200

97/97 [==============================] - 11s 112ms/step - loss: 0.0068 - sparse_categorical_accuracy: 0.9972 - val_loss: 1.7835 - val_sparse_categorical_accuracy: 0.6875

Epoch 189/200

97/97 [==============================] - 11s 109ms/step - loss: 0.0046 - sparse_categorical_accuracy: 0.9982 - val_loss: 1.8313 - val_sparse_categorical_accuracy: 0.6680

Epoch 190/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0029 - sparse_categorical_accuracy: 0.9986 - val_loss: 1.6914 - val_sparse_categorical_accuracy: 0.7023

Epoch 191/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0018 - sparse_categorical_accuracy: 0.9988 - val_loss: 1.6808 - val_sparse_categorical_accuracy: 0.7055

Epoch 192/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0035 - sparse_categorical_accuracy: 0.9982 - val_loss: 2.0377 - val_sparse_categorical_accuracy: 0.6734

Epoch 193/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0021 - sparse_categorical_accuracy: 0.9989 - val_loss: 1.8866 - val_sparse_categorical_accuracy: 0.6859

Epoch 194/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0017 - sparse_categorical_accuracy: 0.9989 - val_loss: 1.8186 - val_sparse_categorical_accuracy: 0.7047

Epoch 195/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0018 - sparse_categorical_accuracy: 0.9988 - val_loss: 1.9892 - val_sparse_categorical_accuracy: 0.6828

Epoch 196/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0017 - sparse_categorical_accuracy: 0.9989 - val_loss: 1.7960 - val_sparse_categorical_accuracy: 0.7055

Epoch 197/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0015 - sparse_categorical_accuracy: 0.9986 - val_loss: 1.7935 - val_sparse_categorical_accuracy: 0.7156

Epoch 198/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0015 - sparse_categorical_accuracy: 0.9987 - val_loss: 1.8064 - val_sparse_categorical_accuracy: 0.7117

Epoch 199/200

97/97 [==============================] - 11s 113ms/step - loss: 0.0015 - sparse_categorical_accuracy: 0.9990 - val_loss: 1.8110 - val_sparse_categorical_accuracy: 0.7117

Epoch 200/200

97/97 [==============================] - 11s 110ms/step - loss: 0.0015 - sparse_categorical_accuracy: 0.9990 - val_loss: 1.8060 - val_sparse_categorical_accuracy: 0.7133

Model: "shallow__res_1"

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Layer (type)	Output Shape	Param #
==		
conv2d_56 (Conv2D)	multiple	9472
batch_normalization_54 (Batc multiple		256
activation_51 (Activation)	multiple	0
max_pooling2d_16 (MaxPooling multiple		0
sequential_1 (Sequential)	(None, 4, 4, 512)	21300480
global_average_pooling2d_1 (multiple		0
dense_13 (Dense)	multiple	5130
==		

Total params: 21,315,338

Trainable params: 21,298,314

Non-trainable params: 17,024

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Training and Validation Accuracy Training and Valiidation Loss