```
 1 C:\Users\jdeag\Desktop\project\ArtificialIntel\BuildingIdentifier\venv\
   Scripts\python.exe C:/Users/jdeag/Desktop/project/ArtificialIntel/
   BuildingIdentifier/ImageAnnotation/KerasTunerDeagan.py
 2 2021-10-05 12:21:56.671143: W tensorflow/stream_executor/platform/default
   /dso_loader.cc:64] Could not load dynamic library 'cudart64_110.dll';
   dlerror: cudart64_110.dll not found
 3 2021-10-05 12:21:56.672232: I tensorflow/stream_executor/cuda/cudart_stub
   .cc:29] Ignore above cudart dlerror if you do not have a GPU set up on
   your machine.
 4 THIS IS THE PROPER KERAS TUNER
   //////////////////////////////////////////////////////////////////////
   //////////////////////////////////////////////////////////////////////
   ////////////////
 5 2.6.0
 6 Found 7811 files belonging to 6 classes.
 7 Using 6249 files for training.
 8 2021-10-05 12:22:34.863512: W tensorflow/stream_executor/platform/default
   /dso_loader.cc:64] Could not load dynamic library 'cudart64_110.dll';
   dlerror: cudart64_110.dll not found
 9 2021-10-05 12:22:34.864492: W tensorflow/stream_executor/platform/default
   /dso_loader.cc:64] Could not load dynamic library 'cublas64_11.dll';
   dlerror: cublas64_11.dll not found
10 2021-10-05 12:22:34.865445: W tensorflow/stream_executor/platform/default
   /dso_loader.cc:64] Could not load dynamic library 'cublasLt64_11.dll';
   dlerror: cublasLt64_11.dll not found
11 2021-10-05 12:22:35.458575: W tensorflow/stream_executor/platform/default
   /dso_loader.cc:64] Could not load dynamic library 'cufft64_10.dll';
   dlerror: cufft64_10.dll not found
12 2021-10-05 12:22:35.459544: W tensorflow/stream_executor/platform/default
   /dso_loader.cc:64] Could not load dynamic library 'curand64_10.dll';
   dlerror: curand64_10.dll not found
13 2021-10-05 12:22:35.460743: W tensorflow/stream_executor/platform/default
   /dso_loader.cc:64] Could not load dynamic library 'cusolver64_11.dll';
   dlerror: cusolver64_11.dll not found
14 2021-10-05 12:22:35.462221: W tensorflow/stream_executor/platform/default
   /dso_loader.cc:64] Could not load dynamic library 'cusparse64_11.dll';
   dlerror: cusparse64_11.dll not found
15 2021-10-05 12:22:35.463914: W tensorflow/stream_executor/platform/default
   /dso_loader.cc:64] Could not load dynamic library 'cudnn64_8.dll';
   dlerror: cudnn64_8.dll not found
16 2021-10-05 12:22:35.465241: W tensorflow/core/common_runtime/gpu/
   gpu_device.cc:1835] Cannot dlopen some GPU libraries. Please make sure
   the missing libraries mentioned above are installed properly if you would
    like to use GPU. Follow the guide at https://www.tensorflow.org/install/
   gpu for how to download and setup the required libraries for your
   platform.
17 Skipping registering GPU devices...
18 2021-10-05 12:22:35.466971: I tensorflow/core/platform/cpu_feature_guard.
   cc:142] This TensorFlow binary is optimized with oneAPI Deep Neural
   Network Library (oneDNN) to use the following CPU instructions in
   performance-critical operations:  AVX AVX2
19 To enable them in other operations, rebuild TensorFlow with the
   appropriate compiler flags.
20 Found 7811 files belonging to 6 classes.
21 Using 1562 files for validation.
22 Found 864 files belonging to 6 classes.
23 Model: "sequential"
```

```
24  _____
25  Layer (type)                 Output Shape              Param #
26  =======================================================
27  rescaling (Rescaling)        (None, 256, 256, 3)       0
28  _____
29  random_flip (RandomFlip)     (None, 256, 256, 3)       0
30  _____
31  random_rotation (RandomRotat (None, 256, 256, 3)       0
32  _____
33  conv2d (Conv2D)              (None, 254, 254, 64)      1792
34  _____
35  max_pooling2d (MaxPooling2D) (None, 127, 127, 64)      0
36  _____
37  conv2d_1 (Conv2D)            (None, 125, 125, 128)     73856
38  _____
39  max_pooling2d_1 (MaxPooling2 (None, 62, 62, 128)       0
40  _____
41  conv2d_2 (Conv2D)            (None, 60, 60, 256)       295168
42  _____
43  max_pooling2d_2 (MaxPooling2 (None, 30, 30, 256)       0
44  _____
45  flatten (Flatten)            (None, 230400)            0
46  _____
47  dense (Dense)                (None, 256)               58982656
48  _____
49  dense_1 (Dense)              (None, 256)               65792
50  _____
51  dense_2 (Dense)              (None, 6)                 1542
52  =======================================================
53  Total params: 59,420,806
54  Trainable params: 59,420,806
55  Non-trainable params: 0
56  _____
57  Epoch 1/10
58  C:\Users\jdeag\Desktop\project\ArtificialIntel\BuildingIdentifier\venv\
    lib\site-packages\keras\backend.py:4906: UserWarning: "`
    sparse_categorical_crossentropy` received `from_logits=True`, but the `
    output` argument was produced by a sigmoid or softmax activation and thus
     does not represent logits. Was this intended?"
59    warnings.warn(
60  2021-10-05 12:22:37.512497: I tensorflow/compiler/mlir/
    mlir_graph_optimization_pass.cc:185] None of the MLIR Optimization Passes
     are enabled (registered 2)
61  2021-10-05 12:22:39.369543: W tensorflow/core/framework/
    cpu_allocator_impl.cc:80] Allocation of 528515072 exceeds 10% of free
    system memory.
62  2021-10-05 12:22:42.186086: W tensorflow/core/framework/
    cpu_allocator_impl.cc:80] Allocation of 528515072 exceeds 10% of free
    system memory.
63    1/196 [..............................] - ETA: 20:00 - loss: 1.7959 -
    accuracy: 0.03122021-10-05 12:22:43.248225: W tensorflow/core/framework/
    cpu_allocator_impl.cc:80] Allocation of 528515072 exceeds 10% of free
    system memory.
64  2021-10-05 12:22:45.853078: W tensorflow/core/framework/
    cpu_allocator_impl.cc:80] Allocation of 528515072 exceeds 10% of free
    system memory.
65    2/196 [..............................] - ETA: 11:55 - loss: 5.8592 -
```

```
65  accuracy: 0.26562021-10-05 12:22:48.350123: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
66  2021-10-05 12:22:48.370855: W tensorflow/core/framework/
    cpu_allocator_impl.cc:80] Allocation of 528515072 exceeds 10% of free
    system memory.
67    3/196 [..............................] - ETA: 14:31 - loss: 4.7392 -
    accuracy: 0.21882021-10-05 12:22:52.437760: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
68    4/196 [..............................] - ETA: 13:39 - loss: 3.9509 -
    accuracy: 0.18752021-10-05 12:22:59.484060: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
69   12/196 [>.............................] - ETA: 12:00 - loss: 2.2864 -
    accuracy: 0.34382021-10-05 12:23:26.650910: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
70   44/196 [=====>........................] - ETA: 9:36 - loss: 1.6447 -
    accuracy: 0.41972021-10-05 12:25:27.843204: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
71  2021-10-05 12:25:29.878980: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: known incorrect sRGB profile
72   57/196 [=======>......................] - ETA: 8:47 - loss: 1.5819 -
    accuracy: 0.42822021-10-05 12:26:16.601039: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
73   61/196 [========>.....................] - ETA: 9:18 - loss: 1.5675 -
    accuracy: 0.43082021-10-05 12:26:52.370734: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
74   62/196 [========>.....................] - ETA: 9:27 - loss: 1.5653 -
    accuracy: 0.42992021-10-05 12:27:05.720877: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
75   67/196 [=========>....................] - ETA: 9:42 - loss: 1.5507 -
    accuracy: 0.42402021-10-05 12:27:41.105443: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
76   75/196 [==========>...................] - ETA: 11:27 - loss: 1.5288 -
    accuracy: 0.42792021-10-05 12:29:45.763101: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
77   77/196 [==========>...................] - ETA: 11:17 - loss: 1.5222 -
    accuracy: 0.43022021-10-05 12:29:56.375132: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
78   81/196 [===========>..................] - ETA: 10:43 - loss: 1.5166 -
    accuracy: 0.42862021-10-05 12:30:37.912953: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
79   86/196 [============>.................] - ETA: 10:36 - loss: 1.5048 -
    accuracy: 0.42702021-10-05 12:30:57.376896: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
80   94/196 [=============>................] - ETA: 10:05 - loss: 1.4964 -
    accuracy: 0.42692021-10-05 12:32:14.956934: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
81  100/196 [==============>...............] - ETA: 10:32 - loss: 1.4896 -
    accuracy: 0.43092021-10-05 12:33:16.346657: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
82  110/196 [===============>..............] - ETA: 12:23 - loss: 1.4748 -
    accuracy: 0.43922021-10-05 12:38:25.935407: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
83  117/196 [================>.............] - ETA: 11:33 - loss: 1.4682 -
    accuracy: 0.43912021-10-05 12:39:45.476958: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
84  119/196 [=================>............] - ETA: 11:10 - loss: 1.4678 -
    accuracy: 0.43802021-10-05 12:39:51.143449: W tensorflow/core/lib/png/
```

```
 84  png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
 85  2021-10-05 12:39:54.954936: W tensorflow/core/lib/png/png_io.cc:88] PNG
     warning: iCCP: known incorrect sRGB profile
 86  2021-10-05 12:39:55.213431: W tensorflow/core/lib/png/png_io.cc:88] PNG
     warning: iCCP: known incorrect sRGB profile
 87  124/196 [==================>............] - ETA: 10:15 - loss: 1.4613 -
     accuracy: 0.44082021-10-05 12:40:19.655718: W tensorflow/core/lib/png/
     png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
 88  126/196 [==================>...........] - ETA: 9:53 - loss: 1.4561 -
     accuracy: 0.4420 2021-10-05 12:40:27.187862: W tensorflow/core/lib/png/
     png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
 89  133/196 [===================>..........] - ETA: 8:38 - loss: 1.4526 -
     accuracy: 0.44362021-10-05 12:41:39.270588: W tensorflow/core/lib/png/
     png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
 90  134/196 [===================>..........] - ETA: 8:55 - loss: 1.4522 -
     accuracy: 0.44382021-10-05 12:41:54.392778: W tensorflow/core/lib/png/
     png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
 91  2021-10-05 12:41:55.590985: W tensorflow/core/lib/png/png_io.cc:88] PNG
     warning: iCCP: known incorrect sRGB profile
 92  2021-10-05 12:41:55.606121: W tensorflow/core/lib/png/png_io.cc:88] PNG
     warning: iCCP: known incorrect sRGB profile
 93  151/196 [=======================>.......] - ETA: 6:06 - loss: 1.4376 -
     accuracy: 0.44782021-10-05 12:43:04.459043: W tensorflow/core/lib/png/
     png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
 94  167/196 [==========================>.....] - ETA: 3:43 - loss: 1.4339 -
     accuracy: 0.44552021-10-05 12:44:05.391757: W tensorflow/core/lib/png/
     png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
 95  168/196 [==========================>.....] - ETA: 3:35 - loss: 1.4324 -
     accuracy: 0.44612021-10-05 12:44:10.470574: W tensorflow/core/lib/png/
     png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
 96  2021-10-05 12:44:12.656266: W tensorflow/core/lib/png/png_io.cc:88] PNG
     warning: iCCP: known incorrect sRGB profile
 97  196/196 [==============================] - ETA: 0s - loss: 1.4146 -
     accuracy: 0.44792021-10-05 12:46:47.935087: W tensorflow/core/lib/png/
     png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
 98  2021-10-05 12:47:30.933685: I tensorflow/core/kernels/data/
     shuffle_dataset_op.cc:175] Filling up shuffle buffer (this may take a
     while): 228 of 256
 99  2021-10-05 12:47:30.933880: I tensorflow/core/kernels/data/
     shuffle_dataset_op.cc:175] Filling up shuffle buffer (this may take a
     while): 229 of 256
100  2021-10-05 12:47:30.949481: I tensorflow/core/kernels/data/
     shuffle_dataset_op.cc:175] Filling up shuffle buffer (this may take a
     while): 230 of 256
101  2021-10-05 12:47:30.949662: I tensorflow/core/kernels/data/
     shuffle_dataset_op.cc:175] Filling up shuffle buffer (this may take a
     while): 231 of 256
102  2021-10-05 12:47:31.450892: I tensorflow/core/kernels/data/
     shuffle_dataset_op.cc:228] Shuffle buffer filled.
103  2021-10-05 12:47:32.177761: W tensorflow/core/lib/png/png_io.cc:88] PNG
     warning: iCCP: known incorrect sRGB profile
104  2021-10-05 12:47:34.317742: W tensorflow/core/lib/png/png_io.cc:88] PNG
     warning: iCCP: known incorrect sRGB profile
105  2021-10-05 12:48:05.923886: W tensorflow/core/lib/png/png_io.cc:88] PNG
     warning: iCCP: known incorrect sRGB profile
106  2021-10-05 12:48:06.148582: W tensorflow/core/lib/png/png_io.cc:88] PNG
     warning: iCCP: known incorrect sRGB profile
```

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107 2021-10-05 12:48:27.267584: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: known incorrect sRGB profile
108 196/196 [==============================] - 1565s 8s/step - loss: 1.4146
    - accuracy: 0.4479 - val_loss: 1.3458 - val_accuracy: 0.4347
109 Epoch 2/10
110 196/196 [==============================] - 961s 5s/step - loss: 1.3307
    - accuracy: 0.4583 - val_loss: 1.3166 - val_accuracy: 0.4405
111 Epoch 3/10
112 196/196 [==============================] - 1069s 5s/step - loss: 1.3100
    - accuracy: 0.4729 - val_loss: 1.2966 - val_accuracy: 0.4981
113 Epoch 4/10
114 196/196 [==============================] - 1186s 6s/step - loss: 1.2974
    - accuracy: 0.4695 - val_loss: 1.2951 - val_accuracy: 0.4885
115 Epoch 5/10
116 196/196 [==============================] - 1077s 5s/step - loss: 1.2906
    - accuracy: 0.4770 - val_loss: 1.2542 - val_accuracy: 0.5019
117 Epoch 6/10
118 196/196 [==============================] - 1828s 9s/step - loss: 1.2832
    - accuracy: 0.4854 - val_loss: 1.2827 - val_accuracy: 0.4866
119 Epoch 7/10
120 196/196 [==============================] - 1421s 6s/step - loss: 1.2823
    - accuracy: 0.4822 - val_loss: 1.2399 - val_accuracy: 0.5096
121 Epoch 8/10
122 196/196 [==============================] - 908s 5s/step - loss: 1.2762
    - accuracy: 0.4870 - val_loss: 1.2579 - val_accuracy: 0.4968
123 Epoch 9/10
124 196/196 [==============================] - 899s 5s/step - loss: 1.2644
    - accuracy: 0.4887 - val_loss: 1.2659 - val_accuracy: 0.4661
125 Epoch 10/10
126 196/196 [==============================] - 950s 5s/step - loss: 1.2668
    - accuracy: 0.4828 - val_loss: 1.2452 - val_accuracy: 0.5051
127 2021-10-05 15:40:40.113590: I tensorflow/core/kernels/data/
    shuffle_dataset_op.cc:175] Filling up shuffle buffer (this may take a
    while): 70 of 256
128 2021-10-05 15:40:50.319698: I tensorflow/core/kernels/data/
    shuffle_dataset_op.cc:175] Filling up shuffle buffer (this may take a
    while): 171 of 256
129 2021-10-05 15:40:53.951496: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: known incorrect sRGB profile
130 2021-10-05 15:40:55.648689: I tensorflow/core/kernels/data/
    shuffle_dataset_op.cc:228] Shuffle buffer filled.
131  2/27 [=>............................] - ETA: 32s - loss: 1.3130 -
    accuracy: 0.5469  2021-10-05 15:41:02.013952: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
132  9/27 [=========>....................] - ETA: 23s - loss: 1.2699 -
    accuracy: 0.50692021-10-05 15:41:10.424262: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
133 2021-10-05 15:41:11.230024: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: known incorrect sRGB profile
134 10/27 [=========>....................] - ETA: 21s - loss: 1.2734 -
    accuracy: 0.51252021-10-05 15:41:11.361551: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: profile 'ICC Profile': 'desc': ICC
    profile tag start not a multiple of 4
135 2021-10-05 15:41:11.362240: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: profile 'ICC Profile': 'wtpt': ICC profile tag start not
    a multiple of 4
136 2021-10-05 15:41:11.388133: W tensorflow/core/lib/png/png_io.cc:88] PNG
```

```
136 warning: iCCP: profile 'ICC Profile': 'bkpt': ICC profile tag start not
    a multiple of 4
137 2021-10-05 15:41:11.388801: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: profile 'ICC Profile': 'rXYZ': ICC profile tag start not
    a multiple of 4
138 2021-10-05 15:41:11.436091: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: profile 'ICC Profile': 'gXYZ': ICC profile tag start not
    a multiple of 4
139 2021-10-05 15:41:11.436590: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: profile 'ICC Profile': 'bXYZ': ICC profile tag start not
    a multiple of 4
140 2021-10-05 15:41:11.437086: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: profile 'ICC Profile': 'dmnd': ICC profile tag start not
    a multiple of 4
141 2021-10-05 15:41:11.437630: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: profile 'ICC Profile': 'dmdd': ICC profile tag start not
    a multiple of 4
142 2021-10-05 15:41:11.438123: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: profile 'ICC Profile': 'vued': ICC profile tag start not
    a multiple of 4
143 2021-10-05 15:41:11.438607: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: profile 'ICC Profile': 'view': ICC profile tag start not
    a multiple of 4
144 2021-10-05 15:41:11.474201: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: profile 'ICC Profile': 'lumi': ICC profile tag start not
    a multiple of 4
145 2021-10-05 15:41:11.474947: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: profile 'ICC Profile': 'meas': ICC profile tag start not
    a multiple of 4
146 2021-10-05 15:41:11.475657: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: profile 'ICC Profile': 'tech': ICC profile tag start not
    a multiple of 4
147 2021-10-05 15:41:11.476350: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: profile 'ICC Profile': 'rTRC': ICC profile tag start not
    a multiple of 4
148 2021-10-05 15:41:11.477047: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: profile 'ICC Profile': 'gTRC': ICC profile tag start not
    a multiple of 4
149 2021-10-05 15:41:11.477615: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: profile 'ICC Profile': 'bTRC': ICC profile tag start not
    a multiple of 4
150 17/27 [=================>............] - ETA: 13s - loss: 1.3014 -
    accuracy: 0.51652021-10-05 15:41:21.758220: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
151 27/27 [==============================] - 62s 1s/step - loss: 1.3043 -
    accuracy: 0.5197
152 Accuracy: 0.5196759104728699
153 Loss: 1.304303526878357
154 end
155
156 Process finished with exit code 0
157
```