```
 1 C:\Users\jdeag\Desktop\project\ArtificialIntel\BuildingIdentifier\venv\
   Scripts\python.exe C:/Users/jdeag/Desktop/project/ArtificialIntel/
   BuildingIdentifier/ImageAnnotation/KerasTunerDeagan.py
 2 2021-09-23 13:12:09.494335: 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 2021-09-23 13:12:09.494545: 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 2021-09-23 13:12:22.345336: 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 2021-09-23 13:12:22.346387: 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 2021-09-23 13:12:22.347413: 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 2021-09-23 13:12:22.348447: 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 2021-09-23 13:12:22.349472: 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 2021-09-23 13:12:22.350499: 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 2021-09-23 13:12:22.351524: 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 2021-09-23 13:12:22.352552: 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 2021-09-23 13:12:22.353129: 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 2021-09-23 13:12:22.354632: 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, 32)    896
34 _____
35 max_pooling2d (MaxPooling2D)  (None, 127, 127, 32)    0
36 _____
37 batch_normalization (BatchNo  (None, 127, 127, 32)    128
38 _____
39 conv2d_1 (Conv2D)             (None, 125, 125, 64)    18496
40 _____
41 max_pooling2d_1 (MaxPooling2  (None, 62, 62, 64)      0
42 _____
43 batch_normalization_1 (Batch  (None, 62, 62, 64)      256
44 _____
45 conv2d_2 (Conv2D)             (None, 60, 60, 128)     73856
46 _____
47 max_pooling2d_2 (MaxPooling2  (None, 30, 30, 128)     0
48 _____
49 batch_normalization_2 (Batch  (None, 30, 30, 128)     512
50 _____
51 flatten (Flatten)             (None, 115200)          0
52 _____
53 dense (Dense)                 (None, 256)             29491456
54 _____
55 dropout (Dropout)             (None, 256)             0
56 _____
57 dense_1 (Dense)               (None, 128)             32896
58 _____
59 dropout_1 (Dropout)           (None, 128)             0
60 _____
61 dense_2 (Dense)               (None, 6)               774
62 ===============================================================
63 Total params: 29,619,270
64 Trainable params: 29,618,822
65 Non-trainable params: 448
66 _____
67 Epoch 1/10
68 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?"
69   warnings.warn(
70 2021-09-23 13:12:23.727435: I tensorflow/compiler/mlir/
   mlir_graph_optimization_pass.cc:185] None of the MLIR Optimization Passes
    are enabled (registered 2)
71   1/196 [..............................] - ETA: 12:20 - loss: 4.4818 -
   accuracy: 0.18752021-09-23 13:12:27.050755: W tensorflow/core/lib/png/
   png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
72   4/196 [..............................] - ETA: 6:15 - loss: 18.9802 -
```

```
72  accuracy: 0.20312021-09-23 13:12:32.980463: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
73   5/196 [..............................] - ETA: 6:12 - loss: 20.1525 -
    accuracy: 0.20002021-09-23 13:12:34.948169: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
74  13/196 [>.............................] - ETA: 5:56 - loss: 22.4013 -
    accuracy: 0.25002021-09-23 13:12:50.445092: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
75  46/196 [======>.......................] - ETA: 4:55 - loss: 25.6312 -
    accuracy: 0.29552021-09-23 13:13:55.631046: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
76  2021-09-23 13:13:55.692728: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: known incorrect sRGB profile
77  56/196 [=======>......................] - ETA: 4:35 - loss: 26.2879 -
    accuracy: 0.28572021-09-23 13:14:15.293039: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
78  58/196 [=======>......................] - ETA: 4:31 - loss: 26.2814 -
    accuracy: 0.28612021-09-23 13:14:19.449036: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
79  60/196 [========>.....................] - ETA: 4:28 - loss: 26.2586 -
    accuracy: 0.28282021-09-23 13:14:23.252202: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
80  65/196 [========>.....................] - ETA: 4:18 - loss: 26.1984 -
    accuracy: 0.28412021-09-23 13:14:33.206467: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
81  73/196 [==========>...................] - ETA: 4:02 - loss: 25.6649 -
    accuracy: 0.28602021-09-23 13:14:49.130468: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
82  76/196 [==========>...................] - ETA: 3:56 - loss: 25.3677 -
    accuracy: 0.29032021-09-23 13:14:55.147189: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
83  82/196 [===========>..................] - ETA: 3:45 - loss: 25.0819 -
    accuracy: 0.29082021-09-23 13:15:06.867098: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
84  87/196 [============>.................] - ETA: 3:35 - loss: 24.7678 -
    accuracy: 0.28702021-09-23 13:15:16.946973: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
85  92/196 [=============>................] - ETA: 3:25 - loss: 24.3092 -
    accuracy: 0.28872021-09-23 13:15:27.042408: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
86  96/196 [=============>................] - ETA: 3:17 - loss: 24.0080 -
    accuracy: 0.29042021-09-23 13:15:35.029286: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
87  109/196 [===============>.............] - ETA: 2:52 - loss: 23.0536 -
    accuracy: 0.29242021-09-23 13:16:01.030996: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
88  117/196 [=================>...........] - ETA: 2:36 - loss: 22.2243 -
    accuracy: 0.29702021-09-23 13:16:17.554865: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
89  119/196 [=================>...........] - ETA: 2:32 - loss: 22.0756 -
    accuracy: 0.29732021-09-23 13:16:21.564975: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
90  122/196 [=================>...........] - ETA: 2:27 - loss: 21.8035 -
    accuracy: 0.29742021-09-23 13:16:27.553337: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
91  2021-09-23 13:16:27.683815: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: known incorrect sRGB profile
```

```
 92  127/196 [==================>...........] - ETA: 2:17 - loss: 21.3362 -
     accuracy: 0.29902021-09-23 13:16:37.879262: W tensorflow/core/lib/png/
     png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
 93  130/196 [===================>..........] - ETA: 2:11 - loss: 21.1491 -
     accuracy: 0.30022021-09-23 13:16:43.704912: W tensorflow/core/lib/png/
     png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
 94  131/196 [===================>..........] - ETA: 2:09 - loss: 21.0593 -
     accuracy: 0.30102021-09-23 13:16:45.716604: W tensorflow/core/lib/png/
     png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
 95  134/196 [===================>..........] - ETA: 2:03 - loss: 20.8128 -
     accuracy: 0.30062021-09-23 13:16:51.809575: W tensorflow/core/lib/png/
     png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
 96  135/196 [===================>..........] - ETA: 2:01 - loss: 20.7324 -
     accuracy: 0.30022021-09-23 13:16:53.878599: W tensorflow/core/lib/png/
     png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
 97  2021-09-23 13:16:53.878948: W tensorflow/core/lib/png/png_io.cc:88] PNG
     warning: iCCP: known incorrect sRGB profile
 98  154/196 [=======================>.......] - ETA: 1:23 - loss: 19.3473 -
     accuracy: 0.30222021-09-23 13:17:31.999131: W tensorflow/core/lib/png/
     png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
 99  166/196 [=========================>.....] - ETA: 59s - loss: 18.5184 -
     accuracy: 0.3057 2021-09-23 13:17:55.954148: W tensorflow/core/lib/png/
     png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
100  172/196 [==========================>....] - ETA: 47s - loss: 18.1391 -
     accuracy: 0.30742021-09-23 13:18:08.351325: W tensorflow/core/lib/png/
     png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
101  174/196 [==========================>....] - ETA: 43s - loss: 18.0189 -
     accuracy: 0.30782021-09-23 13:18:12.467167: W tensorflow/core/lib/png/
     png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
102  196/196 [=============================] - ETA: 0s - loss: 16.8509 -
     accuracy: 0.30682021-09-23 13:19:03.895314: W tensorflow/core/lib/png/
     png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
103  2021-09-23 13:19:03.980288: W tensorflow/core/lib/png/png_io.cc:88] PNG
     warning: iCCP: known incorrect sRGB profile
104  2021-09-23 13:19:04.564676: W tensorflow/core/lib/png/png_io.cc:88] PNG
     warning: iCCP: known incorrect sRGB profile
105  2021-09-23 13:19:14.527964: W tensorflow/core/lib/png/png_io.cc:88] PNG
     warning: iCCP: known incorrect sRGB profile
106  2021-09-23 13:19:14.943205: W tensorflow/core/lib/png/png_io.cc:88] PNG
     warning: iCCP: known incorrect sRGB profile
107  2021-09-23 13:19:20.954018: W tensorflow/core/lib/png/png_io.cc:88] PNG
     warning: iCCP: known incorrect sRGB profile
108  196/196 [=============================] - 424s 2s/step - loss: 16.8509
     - accuracy: 0.3068 - val_loss: 4.5903 - val_accuracy: 0.4795
109  Epoch 2/10
110  196/196 [=============================] - 544s 3s/step - loss: 5.7523
     - accuracy: 0.3794 - val_loss: 4.5301 - val_accuracy: 0.4795
111  Epoch 3/10
112  196/196 [=============================] - 518s 3s/step - loss: 4.7769
     - accuracy: 0.4253 - val_loss: 4.2955 - val_accuracy: 0.4795
113  Epoch 4/10
114  196/196 [=============================] - 489s 2s/step - loss: 4.3310
     - accuracy: 0.4414 - val_loss: 3.9608 - val_accuracy: 0.4795
115  Epoch 5/10
116  196/196 [=============================] - 546s 3s/step - loss: 3.8929
     - accuracy: 0.4444 - val_loss: 3.5926 - val_accuracy: 0.4795
117  Epoch 6/10
```

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118  196/196 [============================] - 662s 3s/step - loss: 3.5089
     - accuracy: 0.4486 - val_loss: 3.2523 - val_accuracy: 0.4795
119  Epoch 7/10
120  196/196 [============================] - 603s 3s/step - loss: 3.1385
     - accuracy: 0.4510 - val_loss: 2.9123 - val_accuracy: 0.4795
121  Epoch 8/10
122  196/196 [============================] - 591s 3s/step - loss: 2.8205
     - accuracy: 0.4538 - val_loss: 2.6190 - val_accuracy: 0.4795
123  Epoch 9/10
124  196/196 [============================] - 585s 3s/step - loss: 2.5706
     - accuracy: 0.4495 - val_loss: 2.3812 - val_accuracy: 0.4795
125  Epoch 10/10
126  196/196 [============================] - 596s 3s/step - loss: 2.3160
     - accuracy: 0.4529 - val_loss: 2.1556 - val_accuracy: 0.4795
127  2021-09-23 14:45:42.716072: I tensorflow/core/kernels/data/
     shuffle_dataset_op.cc:175] Filling up shuffle buffer (this may take a
     while): 2 of 256
128  2021-09-23 14:45:57.761891: I tensorflow/core/kernels/data/
     shuffle_dataset_op.cc:175] Filling up shuffle buffer (this may take a
     while): 42 of 256
129  2021-09-23 14:46:12.348915: I tensorflow/core/kernels/data/
     shuffle_dataset_op.cc:175] Filling up shuffle buffer (this may take a
     while): 56 of 256
130  2021-09-23 14:46:12.349090: I tensorflow/core/kernels/data/
     shuffle_dataset_op.cc:175] Filling up shuffle buffer (this may take a
     while): 57 of 256
131  2021-09-23 14:46:25.746327: I tensorflow/core/kernels/data/
     shuffle_dataset_op.cc:175] Filling up shuffle buffer (this may take a
     while): 92 of 256
132  2021-09-23 14:46:33.073741: I tensorflow/core/kernels/data/
     shuffle_dataset_op.cc:175] Filling up shuffle buffer (this may take a
     while): 142 of 256
133  2021-09-23 14:46:41.564370: I tensorflow/core/kernels/data/
     shuffle_dataset_op.cc:175] Filling up shuffle buffer (this may take a
     while): 185 of 256
134  2021-09-23 14:46:42.123612: W tensorflow/core/lib/png/png_io.cc:88] PNG
     warning: iCCP: known incorrect sRGB profile
135  2021-09-23 14:46:52.053719: I tensorflow/core/kernels/data/
     shuffle_dataset_op.cc:175] Filling up shuffle buffer (this may take a
     while): 203 of 256
136  2021-09-23 14:47:04.087345: I tensorflow/core/kernels/data/
     shuffle_dataset_op.cc:175] Filling up shuffle buffer (this may take a
     while): 216 of 256
137  2021-09-23 14:47:11.599381: I tensorflow/core/kernels/data/
     shuffle_dataset_op.cc:175] Filling up shuffle buffer (this may take a
     while): 228 of 256
138  2021-09-23 14:47:15.475868: I tensorflow/core/kernels/data/
     shuffle_dataset_op.cc:228] Shuffle buffer filled.
139   3/27 [==>...........................] - ETA: 3:06 - loss: 2.1643 -
     accuracy: 0.50002021-09-23 14:47:36.025089: W tensorflow/core/lib/png/
     png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
140  10/27 [==========>...................] - ETA: 1:17 - loss: 2.1803 -
     accuracy: 0.49062021-09-23 14:48:01.056958: W tensorflow/core/lib/png/
     png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
141  2021-09-23 14:48:01.836096: W tensorflow/core/lib/png/png_io.cc:88] PNG
     warning: iCCP: known incorrect sRGB profile
142  2021-09-23 14:48:02.575819: W tensorflow/core/lib/png/png_io.cc:88] PNG
```

```
142 warning: iCCP: profile 'ICC Profile': 'desc': ICC profile tag start not
    a multiple of 4
143 2021-09-23 14:48:02.576000: 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
144 2021-09-23 14:48:02.576167: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: profile 'ICC Profile': 'bkpt': ICC profile tag start not
    a multiple of 4
145 2021-09-23 14:48:02.623992: 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
146 2021-09-23 14:48:02.624256: 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
147 2021-09-23 14:48:02.624498: 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
148 2021-09-23 14:48:02.624739: 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
149 2021-09-23 14:48:02.624979: 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
150 2021-09-23 14:48:02.625218: 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
151 2021-09-23 14:48:02.625460: 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
152 2021-09-23 14:48:02.625704: 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
153 2021-09-23 14:48:02.625948: 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
154 2021-09-23 14:48:02.626187: 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
155 2021-09-23 14:48:02.626429: 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
156 2021-09-23 14:48:02.626671: 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
157 2021-09-23 14:48:02.626912: 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
158 17/27 [=================>...........] - ETA: 45s - loss: 2.1956 -
    accuracy: 0.47982021-09-23 14:48:34.116080: W tensorflow/core/lib/png/
    png_io.cc:88] PNG warning: iCCP: known incorrect sRGB profile
159 27/27 [============================] - 192s 3s/step - loss: 2.1981 -
    accuracy: 0.4803
160 Accuracy: 0.48032405972480774
161 Loss: 2.198075294494629
162 end
163
164 Process finished with exit code 0
```