```
 1 C:\Users\Lenovo\AppData\Local\Programs\Python\
   Python39\python.exe D:/2022-Automated-test/
   FaceRecognition/faceRecognition/train_model.py
 2 2022-12-01 17:51:13.985217: I tensorflow/core/
   platform/cpu_feature_guard.cc:193] This TensorFlow
   binary is optimized with oneAPI Deep Neural Network
   Library (oneDNN) to use the following CPU
   instructions in performance-critical operations:  AVX
    AVX2
 3 To enable them in other operations, rebuild
   TensorFlow with the appropriate compiler flags.
 4 C:\Users\Lenovo\AppData\Local\Programs\Python\
   Python39\lib\site-packages\keras\optimizers\
   optimizer_v2\gradient_descent.py:114: UserWarning:
   The `lr` argument is deprecated, use `learning_rate`
   instead.
 5   super().__init__(name, **kwargs)
 6 Model: "sequential"
 7 _____
   _____
 8  Layer (type)                 Output Shape
                Param #
 9 ======================================================
   ============
10  conv2d (Conv2D)              (None, 1, 128, 32
   )        102432
11

12  activation (Activation)      (None, 1, 128, 32
   )          0
13

14  max_pooling2d (MaxPooling2D  (None, 1, 64, 32
   )          0
15  )

16

17  dropout (Dropout)            (None, 1, 64, 32
   )          0
18
```

```
18
19  conv2d_1 (Conv2D)            (None, 1, 64, 64
    )           51264
20


21  activation_1 (Activation)    (None, 1, 64, 64
    )               0
22


23  max_pooling2d_1 (MaxPooling  (None, 1, 32, 64
    )               0
24  2D
    )


25


26  dropout_1 (Dropout)          (None, 1, 32, 64
    )               0
27


28  conv2d_2 (Conv2D)            (None, 1, 32, 64
    )          102464
29


30  activation_2 (Activation)    (None, 1, 32, 64
    )               0
31


32  max_pooling2d_2 (MaxPooling  (None, 1, 16, 64
    )               0
33  2D
    )


34


35  dropout_2 (Dropout)          (None, 1, 16, 64
    )               0
36


37  conv2d_3 (Conv2D)            (None, 1, 16, 64
    )          102464
```

```
38

39  activation_3 (Activation)    (None, 1, 16, 64
    )          0
40

41  max_pooling2d_3 (MaxPooling  (None, 1, 8, 64
    )          0
42  2D
    )

43

44  dropout_3 (Dropout)          (None, 1, 8, 64
    )          0
45

46  flatten (Flatten)            (None, 512
    )                0
47

48  dense (Dense)                (None, 512
    )             262656
49

50  activation_4 (Activation)    (None, 512
    )                0
51

52  dropout_4 (Dropout)          (None, 512
    )                0
53

54  dense_1 (Dense)              (None, 30
    )             15390
55

56  activation_5 (Activation)    (None, 30
    )                0
57
```

```
58 =======================================================
   ============
59 Total params: 636,670
60 Trainable params: 636,670
61 Non-trainable params: 0
62 _____
   _____
63 Epoch 1/200
64 27/27 [==============================] - 3s 89ms/step
   - loss: 3.4024 - accuracy: 0.0329
65 Epoch 2/200
66 27/27 [==============================] - 3s 98ms/step
   - loss: 3.4004 - accuracy: 0.0354
67 Epoch 3/200
68 27/27 [==============================] - 3s 108ms/
   step - loss: 3.3985 - accuracy: 0.0337
69 Epoch 4/200
70 27/27 [==============================] - 3s 95ms/step
   - loss: 3.3979 - accuracy: 0.0354
71 Epoch 5/200
72 27/27 [==============================] - 3s 98ms/step
   - loss: 3.3947 - accuracy: 0.0370
73 Epoch 6/200
74 27/27 [==============================] - 2s 92ms/step
   - loss: 3.3860 - accuracy: 0.0288
75 Epoch 7/200
76 27/27 [==============================] - 3s 98ms/step
   - loss: 3.3806 - accuracy: 0.0312
77 Epoch 8/200
78 27/27 [==============================] - 2s 91ms/step
   - loss: 3.3661 - accuracy: 0.0419
79 Epoch 9/200
80 27/27 [==============================] - 3s 96ms/step
   - loss: 3.3479 - accuracy: 0.0567
81 Epoch 10/200
82 27/27 [==============================] - 2s 91ms/step
   - loss: 3.3393 - accuracy: 0.0526
83 Epoch 11/200
84 27/27 [==============================] - 3s 98ms/step
   - loss: 3.3242 - accuracy: 0.0559
85 Epoch 12/200
```

```
 86 27/27 [==============================] - 3s 103ms/
    step - loss: 3.3230 - accuracy: 0.0609
 87 Epoch 13/200
 88 27/27 [==============================] - 3s 96ms/
    step - loss: 3.3154 - accuracy: 0.0633
 89 Epoch 14/200
 90 27/27 [==============================] - 3s 96ms/
    step - loss: 3.3029 - accuracy: 0.0724
 91 Epoch 15/200
 92 27/27 [==============================] - 3s 95ms/
    step - loss: 3.2969 - accuracy: 0.0658
 93 Epoch 16/200
 94 27/27 [==============================] - 3s 94ms/
    step - loss: 3.2686 - accuracy: 0.0683
 95 Epoch 17/200
 96 27/27 [==============================] - 3s 94ms/
    step - loss: 3.2810 - accuracy: 0.0715
 97 Epoch 18/200
 98 27/27 [==============================] - 3s 94ms/
    step - loss: 3.2550 - accuracy: 0.0707
 99 Epoch 19/200
100 27/27 [==============================] - 3s 95ms/
    step - loss: 3.2489 - accuracy: 0.0674
101 Epoch 20/200
102 27/27 [==============================] - 3s 93ms/
    step - loss: 3.2525 - accuracy: 0.0765
103 Epoch 21/200
104 27/27 [==============================] - 3s 94ms/
    step - loss: 3.2122 - accuracy: 0.0880
105 Epoch 22/200
106 27/27 [==============================] - 3s 95ms/
    step - loss: 3.2094 - accuracy: 0.0814
107 Epoch 23/200
108 27/27 [==============================] - 3s 94ms/
    step - loss: 3.2017 - accuracy: 0.0781
109 Epoch 24/200
110 27/27 [==============================] - 3s 94ms/
    step - loss: 3.1867 - accuracy: 0.0773
111 Epoch 25/200
112 27/27 [==============================] - 3s 94ms/
    step - loss: 3.1458 - accuracy: 0.0822
```

```
113 Epoch 26/200
114 27/27 [==============================] - 3s 94ms/
    step - loss: 3.1447 - accuracy: 0.0946
115 Epoch 27/200
116 27/27 [==============================] - 3s 97ms/
    step - loss: 3.1173 - accuracy: 0.1003
117 Epoch 28/200
118 27/27 [==============================] - 3s 97ms/
    step - loss: 3.1137 - accuracy: 0.1127
119 Epoch 29/200
120 27/27 [==============================] - 2s 92ms/
    step - loss: 3.0719 - accuracy: 0.1135
121 Epoch 30/200
122 27/27 [==============================] - 3s 96ms/
    step - loss: 3.0791 - accuracy: 0.1135
123 Epoch 31/200
124 27/27 [==============================] - 3s 107ms/
    step - loss: 3.0431 - accuracy: 0.1217
125 Epoch 32/200
126 27/27 [==============================] - 3s 100ms/
    step - loss: 3.0392 - accuracy: 0.1209
127 Epoch 33/200
128 27/27 [==============================] - 3s 93ms/
    step - loss: 3.0118 - accuracy: 0.1340
129 Epoch 34/200
130 27/27 [==============================] - 3s 95ms/
    step - loss: 3.0007 - accuracy: 0.1324
131 Epoch 35/200
132 27/27 [==============================] - 3s 95ms/
    step - loss: 2.9769 - accuracy: 0.1406
133 Epoch 36/200
134 27/27 [==============================] - 3s 103ms/
    step - loss: 2.9594 - accuracy: 0.1357
135 Epoch 37/200
136 27/27 [==============================] - 2s 92ms/
    step - loss: 2.9348 - accuracy: 0.1505
137 Epoch 38/200
138 27/27 [==============================] - 3s 94ms/
    step - loss: 2.8991 - accuracy: 0.1628
139 Epoch 39/200
140 27/27 [==============================] - 3s 94ms/
```

```
140 step - loss: 2.8535 - accuracy: 0.1595
141 Epoch 40/200
142 27/27 [==============================] - 3s 94ms/
    step - loss: 2.8569 - accuracy: 0.1711
143 Epoch 41/200
144 27/27 [==============================] - 3s 103ms/
    step - loss: 2.8212 - accuracy: 0.1702
145 Epoch 42/200
146 27/27 [==============================] - 3s 111ms/
    step - loss: 2.7944 - accuracy: 0.1752
147 Epoch 43/200
148 27/27 [==============================] - 3s 95ms/
    step - loss: 2.7528 - accuracy: 0.1850
149 Epoch 44/200
150 27/27 [==============================] - 2s 91ms/
    step - loss: 2.7392 - accuracy: 0.1957
151 Epoch 45/200
152 27/27 [==============================] - 3s 96ms/
    step - loss: 2.7182 - accuracy: 0.1875
153 Epoch 46/200
154 27/27 [==============================] - 2s 92ms/
    step - loss: 2.6696 - accuracy: 0.1990
155 Epoch 47/200
156 27/27 [==============================] - 3s 95ms/
    step - loss: 2.6206 - accuracy: 0.2434
157 Epoch 48/200
158 27/27 [==============================] - 2s 90ms/
    step - loss: 2.6238 - accuracy: 0.2204
159 Epoch 49/200
160 27/27 [==============================] - 3s 95ms/
    step - loss: 2.6149 - accuracy: 0.2105
161 Epoch 50/200
162 27/27 [==============================] - 2s 91ms/
    step - loss: 2.5906 - accuracy: 0.2294
163 Epoch 51/200
164 27/27 [==============================] - 3s 95ms/
    step - loss: 2.5407 - accuracy: 0.2525
165 Epoch 52/200
166 27/27 [==============================] - 3s 94ms/
    step - loss: 2.5223 - accuracy: 0.2451
167 Epoch 53/200
```

```
168 27/27 [==============================] - 3s 94ms/
    step - loss: 2.4768 - accuracy: 0.2788
169 Epoch 54/200
170 27/27 [==============================] - 3s 93ms/
    step - loss: 2.4533 - accuracy: 0.2730
171 Epoch 55/200
172 27/27 [==============================] - 3s 96ms/
    step - loss: 2.4034 - accuracy: 0.2911
173 Epoch 56/200
174 27/27 [==============================] - 3s 92ms/
    step - loss: 2.3821 - accuracy: 0.2738
175 Epoch 57/200
176 27/27 [==============================] - 3s 95ms/
    step - loss: 2.3792 - accuracy: 0.2747
177 Epoch 58/200
178 27/27 [==============================] - 2s 92ms/
    step - loss: 2.3329 - accuracy: 0.2936
179 Epoch 59/200
180 27/27 [==============================] - 3s 98ms/
    step - loss: 2.3103 - accuracy: 0.3158
181 Epoch 60/200
182 27/27 [==============================] - 3s 100ms/
    step - loss: 2.2892 - accuracy: 0.2952
183 Epoch 61/200
184 27/27 [==============================] - 3s 95ms/
    step - loss: 2.2341 - accuracy: 0.3298
185 Epoch 62/200
186 27/27 [==============================] - 2s 92ms/
    step - loss: 2.1785 - accuracy: 0.3495
187 Epoch 63/200
188 27/27 [==============================] - 3s 99ms/
    step - loss: 2.1706 - accuracy: 0.3520
189 Epoch 64/200
190 27/27 [==============================] - 3s 95ms/
    step - loss: 2.1570 - accuracy: 0.3421
191 Epoch 65/200
192 27/27 [==============================] - 3s 94ms/
    step - loss: 2.1134 - accuracy: 0.3586
193 Epoch 66/200
194 27/27 [==============================] - 2s 92ms/
    step - loss: 2.1157 - accuracy: 0.3602
```

```
195 Epoch 67/200
196 27/27 [==============================] - 3s 96ms/
    step - loss: 2.0434 - accuracy: 0.3561
197 Epoch 68/200
198 27/27 [==============================] - 3s 93ms/
    step - loss: 2.0209 - accuracy: 0.3701
199 Epoch 69/200
200 27/27 [==============================] - 3s 98ms/
    step - loss: 2.0259 - accuracy: 0.3766
201 Epoch 70/200
202 27/27 [==============================] - 2s 91ms/
    step - loss: 1.9612 - accuracy: 0.4087
203 Epoch 71/200
204 27/27 [==============================] - 3s 95ms/
    step - loss: 1.9995 - accuracy: 0.3964
205 Epoch 72/200
206 27/27 [==============================] - 2s 91ms/
    step - loss: 1.9017 - accuracy: 0.4079
207 Epoch 73/200
208 27/27 [==============================] - 3s 96ms/
    step - loss: 1.8883 - accuracy: 0.4120
209 Epoch 74/200
210 27/27 [==============================] - 2s 90ms/
    step - loss: 1.8931 - accuracy: 0.4013
211 Epoch 75/200
212 27/27 [==============================] - 3s 96ms/
    step - loss: 1.8378 - accuracy: 0.4046
213 Epoch 76/200
214 27/27 [==============================] - 2s 93ms/
    step - loss: 1.8148 - accuracy: 0.4334
215 Epoch 77/200
216 27/27 [==============================] - 3s 97ms/
    step - loss: 1.8077 - accuracy: 0.4219
217 Epoch 78/200
218 27/27 [==============================] - 2s 92ms/
    step - loss: 1.7175 - accuracy: 0.4630
219 Epoch 79/200
220 27/27 [==============================] - 3s 94ms/
    step - loss: 1.7328 - accuracy: 0.4655
221 Epoch 80/200
222 27/27 [==============================] - 3s 94ms/
```

```
222 step - loss: 1.7073 - accuracy: 0.4712
223 Epoch 81/200
224 27/27 [==============================] - 3s 95ms/
    step - loss: 1.6780 - accuracy: 0.4786
225 Epoch 82/200
226 27/27 [==============================] - 2s 92ms/
    step - loss: 1.6888 - accuracy: 0.4811
227 Epoch 83/200
228 27/27 [==============================] - 3s 97ms/
    step - loss: 1.6084 - accuracy: 0.4745
229 Epoch 84/200
230 27/27 [==============================] - 3s 102ms/
    step - loss: 1.5956 - accuracy: 0.4951
231 Epoch 85/200
232 27/27 [==============================] - 3s 95ms/
    step - loss: 1.4922 - accuracy: 0.5230
233 Epoch 86/200
234 27/27 [==============================] - 2s 92ms/
    step - loss: 1.5358 - accuracy: 0.5058
235 Epoch 87/200
236 27/27 [==============================] - 3s 95ms/
    step - loss: 1.5104 - accuracy: 0.5173
237 Epoch 88/200
238 27/27 [==============================] - 3s 93ms/
    step - loss: 1.5553 - accuracy: 0.5000
239 Epoch 89/200
240 27/27 [==============================] - 3s 100ms/
    step - loss: 1.4811 - accuracy: 0.5312
241 Epoch 90/200
242 27/27 [==============================] - 3s 93ms/
    step - loss: 1.4573 - accuracy: 0.5378
243 Epoch 91/200
244 27/27 [==============================] - 3s 93ms/
    step - loss: 1.4245 - accuracy: 0.5543
245 Epoch 92/200
246 27/27 [==============================] - 3s 94ms/
    step - loss: 1.3607 - accuracy: 0.5617
247 Epoch 93/200
248 27/27 [==============================] - 3s 93ms/
    step - loss: 1.3125 - accuracy: 0.5814
249 Epoch 94/200
```

```
250 27/27 [==============================] - 3s 95ms/
    step - loss: 1.2827 - accuracy: 0.5757
251 Epoch 95/200
252 27/27 [==============================] - 3s 92ms/
    step - loss: 1.3930 - accuracy: 0.5518
253 Epoch 96/200
254 27/27 [==============================] - 3s 95ms/
    step - loss: 1.3345 - accuracy: 0.5707
255 Epoch 97/200
256 27/27 [==============================] - 3s 93ms/
    step - loss: 1.2979 - accuracy: 0.5666
257 Epoch 98/200
258 27/27 [==============================] - 3s 93ms/
    step - loss: 1.2085 - accuracy: 0.6077
259 Epoch 99/200
260 27/27 [==============================] - 3s 93ms/
    step - loss: 1.1534 - accuracy: 0.6291
261 Epoch 100/200
262 27/27 [==============================] - 3s 97ms/
    step - loss: 1.2448 - accuracy: 0.5954
263 Epoch 101/200
264 27/27 [==============================] - 3s 94ms/
    step - loss: 1.2656 - accuracy: 0.6003
265 Epoch 102/200
266 27/27 [==============================] - 3s 96ms/
    step - loss: 1.2242 - accuracy: 0.5995
267 Epoch 103/200
268 27/27 [==============================] - 3s 93ms/
    step - loss: 1.3055 - accuracy: 0.5913
269 Epoch 104/200
270 27/27 [==============================] - 3s 95ms/
    step - loss: 1.1321 - accuracy: 0.6373
271 Epoch 105/200
272 27/27 [==============================] - 3s 92ms/
    step - loss: 1.1493 - accuracy: 0.6406
273 Epoch 106/200
274 27/27 [==============================] - 3s 95ms/
    step - loss: 1.1652 - accuracy: 0.6283
275 Epoch 107/200
276 27/27 [==============================] - 3s 93ms/
    step - loss: 1.0837 - accuracy: 0.6464
```

```
277 Epoch 108/200
278 27/27 [==============================] - 3s 107ms/
    step - loss: 1.1498 - accuracy: 0.6225
279 Epoch 109/200
280 27/27 [==============================] - 3s 94ms/
    step - loss: 1.0708 - accuracy: 0.6554
281 Epoch 110/200
282 27/27 [==============================] - 3s 96ms/
    step - loss: 0.9880 - accuracy: 0.6719
283 Epoch 111/200
284 27/27 [==============================] - 2s 92ms/
    step - loss: 1.0581 - accuracy: 0.6546
285 Epoch 112/200
286 27/27 [==============================] - 3s 96ms/
    step - loss: 1.0194 - accuracy: 0.6719
287 Epoch 113/200
288 27/27 [==============================] - 2s 92ms/
    step - loss: 0.9956 - accuracy: 0.6974
289 Epoch 114/200
290 27/27 [==============================] - 3s 95ms/
    step - loss: 1.0669 - accuracy: 0.6530
291 Epoch 115/200
292 27/27 [==============================] - 3s 100ms/
    step - loss: 1.0424 - accuracy: 0.6620
293 Epoch 116/200
294 27/27 [==============================] - 3s 101ms/
    step - loss: 1.0187 - accuracy: 0.6760
295 Epoch 117/200
296 27/27 [==============================] - 2s 92ms/
    step - loss: 1.0219 - accuracy: 0.6628
297 Epoch 118/200
298 27/27 [==============================] - 3s 96ms/
    step - loss: 0.9795 - accuracy: 0.6842
299 Epoch 119/200
300 27/27 [==============================] - 2s 91ms/
    step - loss: 0.9170 - accuracy: 0.7130
301 Epoch 120/200
302 27/27 [==============================] - 3s 95ms/
    step - loss: 0.9067 - accuracy: 0.7122
303 Epoch 121/200
304 27/27 [==============================] - 2s 92ms/
```

```
304 step - loss: 0.9405 - accuracy: 0.7007
305 Epoch 122/200
306 27/27 [==============================] - 3s 96ms/
    step - loss: 0.9706 - accuracy: 0.6776
307 Epoch 123/200
308 27/27 [==============================] - 2s 93ms/
    step - loss: 0.8721 - accuracy: 0.7081
309 Epoch 124/200
310 27/27 [==============================] - 3s 95ms/
    step - loss: 0.9205 - accuracy: 0.7064
311 Epoch 125/200
312 27/27 [==============================] - 2s 92ms/
    step - loss: 0.8334 - accuracy: 0.7294
313 Epoch 126/200
314 27/27 [==============================] - 3s 97ms/
    step - loss: 0.8328 - accuracy: 0.7303
315 Epoch 127/200
316 27/27 [==============================] - 2s 92ms/
    step - loss: 0.8036 - accuracy: 0.7278
317 Epoch 128/200
318 27/27 [==============================] - 3s 95ms/
    step - loss: 0.8509 - accuracy: 0.7278
319 Epoch 129/200
320 27/27 [==============================] - 3s 94ms/
    step - loss: 0.7984 - accuracy: 0.7286
321 Epoch 130/200
322 27/27 [==============================] - 3s 97ms/
    step - loss: 0.8272 - accuracy: 0.7418
323 Epoch 131/200
324 27/27 [==============================] - 2s 91ms/
    step - loss: 0.8277 - accuracy: 0.7294
325 Epoch 132/200
326 27/27 [==============================] - 3s 107ms/
    step - loss: 0.7825 - accuracy: 0.7516
327 Epoch 133/200
328 27/27 [==============================] - 3s 95ms/
    step - loss: 0.7620 - accuracy: 0.7590
329 Epoch 134/200
330 27/27 [==============================] - 3s 94ms/
    step - loss: 0.7778 - accuracy: 0.7516
331 Epoch 135/200
```

```
332 27/27 [==============================] - 3s 94ms/
    step - loss: 0.8214 - accuracy: 0.7294
333 Epoch 136/200
334 27/27 [==============================] - 3s 93ms/
    step - loss: 0.7568 - accuracy: 0.7549
335 Epoch 137/200
336 27/27 [==============================] - 3s 94ms/
    step - loss: 0.8244 - accuracy: 0.7418
337 Epoch 138/200
338 27/27 [==============================] - 3s 93ms/
    step - loss: 0.7228 - accuracy: 0.7681
339 Epoch 139/200
340 27/27 [==============================] - 3s 94ms/
    step - loss: 0.7304 - accuracy: 0.7763
341 Epoch 140/200
342 27/27 [==============================] - 3s 93ms/
    step - loss: 0.7203 - accuracy: 0.7681
343 Epoch 141/200
344 27/27 [==============================] - 3s 96ms/
    step - loss: 0.7114 - accuracy: 0.7845
345 Epoch 142/200
346 27/27 [==============================] - 2s 92ms/
    step - loss: 0.6598 - accuracy: 0.8076
347 Epoch 143/200
348 27/27 [==============================] - 3s 94ms/
    step - loss: 0.6843 - accuracy: 0.7845
349 Epoch 144/200
350 27/27 [==============================] - 2s 91ms/
    step - loss: 0.6900 - accuracy: 0.7747
351 Epoch 145/200
352 27/27 [==============================] - 3s 98ms/
    step - loss: 0.7051 - accuracy: 0.7673
353 Epoch 146/200
354 27/27 [==============================] - 3s 92ms/
    step - loss: 0.6509 - accuracy: 0.7854
355 Epoch 147/200
356 27/27 [==============================] - 3s 95ms/
    step - loss: 0.6442 - accuracy: 0.7887
357 Epoch 148/200
358 27/27 [==============================] - 2s 92ms/
    step - loss: 0.6171 - accuracy: 0.8059
```

```
359 Epoch 149/200
360 27/27 [==============================] - 3s 95ms/
    step - loss: 0.6865 - accuracy: 0.7821
361 Epoch 150/200
362 27/27 [==============================] - 3s 93ms/
    step - loss: 0.6261 - accuracy: 0.8018
363 Epoch 151/200
364 27/27 [==============================] - 3s 95ms/
    step - loss: 0.6697 - accuracy: 0.7837
365 Epoch 152/200
366 27/27 [==============================] - 2s 92ms/
    step - loss: 0.6751 - accuracy: 0.7706
367 Epoch 153/200
368 27/27 [==============================] - 3s 96ms/
    step - loss: 0.6138 - accuracy: 0.8026
369 Epoch 154/200
370 27/27 [==============================] - 2s 92ms/
    step - loss: 0.6187 - accuracy: 0.8092
371 Epoch 155/200
372 27/27 [==============================] - 3s 94ms/
    step - loss: 0.6353 - accuracy: 0.8010
373 Epoch 156/200
374 27/27 [==============================] - 3s 103ms/
    step - loss: 0.6367 - accuracy: 0.7961
375 Epoch 157/200
376 27/27 [==============================] - 3s 102ms/
    step - loss: 0.6068 - accuracy: 0.8018
377 Epoch 158/200
378 27/27 [==============================] - 3s 92ms/
    step - loss: 0.6366 - accuracy: 0.7993
379 Epoch 159/200
380 27/27 [==============================] - 3s 99ms/
    step - loss: 0.6116 - accuracy: 0.7928
381 Epoch 160/200
382 27/27 [==============================] - 2s 92ms/
    step - loss: 0.6658 - accuracy: 0.7862
383 Epoch 161/200
384 27/27 [==============================] - 3s 96ms/
    step - loss: 0.5413 - accuracy: 0.8273
385 Epoch 162/200
386 27/27 [==============================] - 2s 91ms/
```

```
386 step - loss: 0.5586 - accuracy: 0.8100
387 Epoch 163/200
388 27/27 [==============================] - 3s 94ms/
    step - loss: 0.5710 - accuracy: 0.8191
389 Epoch 164/200
390 27/27 [==============================] - 2s 92ms/
    step - loss: 0.5842 - accuracy: 0.8158
391 Epoch 165/200
392 27/27 [==============================] - 3s 97ms/
    step - loss: 0.4978 - accuracy: 0.8396
393 Epoch 166/200
394 27/27 [==============================] - 2s 90ms/
    step - loss: 0.5671 - accuracy: 0.8158
395 Epoch 167/200
396 27/27 [==============================] - 3s 95ms/
    step - loss: 0.5878 - accuracy: 0.8166
397 Epoch 168/200
398 27/27 [==============================] - 2s 91ms/
    step - loss: 0.5366 - accuracy: 0.8133
399 Epoch 169/200
400 27/27 [==============================] - 3s 98ms/
    step - loss: 0.5714 - accuracy: 0.8207
401 Epoch 170/200
402 27/27 [==============================] - 2s 91ms/
    step - loss: 0.5464 - accuracy: 0.8215
403 Epoch 171/200
404 27/27 [==============================] - 3s 96ms/
    step - loss: 0.5795 - accuracy: 0.8166
405 Epoch 172/200
406 27/27 [==============================] - 2s 90ms/
    step - loss: 0.5565 - accuracy: 0.8257
407 Epoch 173/200
408 27/27 [==============================] - 3s 98ms/
    step - loss: 0.5455 - accuracy: 0.8314
409 Epoch 174/200
410 27/27 [==============================] - 3s 96ms/
    step - loss: 0.5108 - accuracy: 0.8273
411 Epoch 175/200
412 27/27 [==============================] - 3s 96ms/
    step - loss: 0.5044 - accuracy: 0.8438
413 Epoch 176/200
```

```
414 27/27 [==============================] - 2s 89ms/
    step - loss: 0.5402 - accuracy: 0.8298
415 Epoch 177/200
416 27/27 [==============================] - 3s 97ms/
    step - loss: 0.5569 - accuracy: 0.8232
417 Epoch 178/200
418 27/27 [==============================] - 2s 91ms/
    step - loss: 0.5026 - accuracy: 0.8487
419 Epoch 179/200
420 27/27 [==============================] - 3s 94ms/
    step - loss: 0.6119 - accuracy: 0.8084
421 Epoch 180/200
422 27/27 [==============================] - 3s 104ms/
    step - loss: 0.4967 - accuracy: 0.8322
423 Epoch 181/200
424 27/27 [==============================] - 3s 98ms/
    step - loss: 0.5088 - accuracy: 0.8503
425 Epoch 182/200
426 27/27 [==============================] - 3s 93ms/
    step - loss: 0.5329 - accuracy: 0.8314
427 Epoch 183/200
428 27/27 [==============================] - 3s 102ms/
    step - loss: 0.5264 - accuracy: 0.8314
429 Epoch 184/200
430 27/27 [==============================] - 3s 96ms/
    step - loss: 0.5041 - accuracy: 0.8314
431 Epoch 185/200
432 27/27 [==============================] - 3s 95ms/
    step - loss: 0.5358 - accuracy: 0.8207
433 Epoch 186/200
434 27/27 [==============================] - 3s 95ms/
    step - loss: 0.5847 - accuracy: 0.8117
435 Epoch 187/200
436 27/27 [==============================] - 2s 91ms/
    step - loss: 0.5633 - accuracy: 0.8355
437 Epoch 188/200
438 27/27 [==============================] - 3s 96ms/
    step - loss: 0.4946 - accuracy: 0.8462
439 Epoch 189/200
440 27/27 [==============================] - 3s 93ms/
    step - loss: 0.5015 - accuracy: 0.8405
```

```
441 Epoch 190/200
442 27/27 [==============================] - 3s 95ms/
    step - loss: 0.4585 - accuracy: 0.8544
443 Epoch 191/200
444 27/27 [==============================] - 2s 90ms/
    step - loss: 0.4567 - accuracy: 0.8512
445 Epoch 192/200
446 27/27 [==============================] - 3s 95ms/
    step - loss: 0.4964 - accuracy: 0.8363
447 Epoch 193/200
448 27/27 [==============================] - 2s 91ms/
    step - loss: 0.5796 - accuracy: 0.8166
449 Epoch 194/200
450 27/27 [==============================] - 3s 95ms/
    step - loss: 0.4986 - accuracy: 0.8413
451 Epoch 195/200
452 27/27 [==============================] - 2s 91ms/
    step - loss: 0.4785 - accuracy: 0.8495
453 Epoch 196/200
454 27/27 [==============================] - 3s 95ms/
    step - loss: 0.4505 - accuracy: 0.8569
455 Epoch 197/200
456 27/27 [==============================] - 2s 91ms/
    step - loss: 0.4918 - accuracy: 0.8544
457 Epoch 198/200
458 27/27 [==============================] - 3s 95ms/
    step - loss: 0.4386 - accuracy: 0.8536
459 Epoch 199/200
460 27/27 [==============================] - 2s 92ms/
    step - loss: 0.5618 - accuracy: 0.8306
461 Epoch 200/200
462 27/27 [==============================] - 3s 94ms/
    step - loss: 0.5043 - accuracy: 0.8322
463
464 Testing--------------
465 10/10 [==============================] - 1s 13ms/
    step - loss: 3.4938 - accuracy: 0.2500
466 test loss; 3.4937827587127686
467 test accuracy: 0.25
468 Model Saved.
469
```

```
470 Process finished with exit code 0
471
```