```
 1 C:\Users\Lenovo\AppData\Local\Programs\Python\
   Python39\python.exe D:/2022-Automated-test/
   FaceRecognition/faceRecognition/train_model.py
 2 2022-12-01 22:19:55.702545: 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 Model: "sequential"
 5 _____
   _____
 6  Layer (type)                 Output Shape
                  Param #
 7 ======================================================
   ============
 8  conv2d (Conv2D)              (None, 1, 128, 32
   )         102432
 9

10  activation (Activation)      (None, 1, 128, 32
   )           0
11

12  max_pooling2d (MaxPooling2D  (None, 1, 64, 32
   )           0
13  )

14

15  dropout (Dropout)            (None, 1, 64, 32
   )             0
16

17  conv2d_1 (Conv2D)            (None, 1, 64, 64
   )          51264
18

19  activation_1 (Activation)    (None, 1, 64, 64
```

```
19  )              0
20

21  max_pooling2d_1 (MaxPooling   (None, 1, 32, 64
    )          0
22  2D
    )

23

24  dropout_1 (Dropout)           (None, 1, 32, 64
    )          0
25

26  conv2d_2 (Conv2D)             (None, 1, 32, 64
    )          102464
27

28  activation_2 (Activation)     (None, 1, 32, 64
    )          0
29

30  max_pooling2d_2 (MaxPooling   (None, 1, 16, 64
    )          0
31  2D
    )

32

33  dropout_2 (Dropout)           (None, 1, 16, 64
    )          0
34

35  conv2d_3 (Conv2D)             (None, 1, 16, 64
    )          102464
36

37  activation_3 (Activation)     (None, 1, 16, 64
    )          0
38
```

```
39 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.
40   super().__init__(name, **kwargs)
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, 2
   )               1026
55


56  activation_5 (Activation)   (None, 2
   )               0
57
```

```
58 ========================================================
   ============
59 Total params: 622,306
60 Trainable params: 622,306
61 Non-trainable params: 0
62 _____
   _____
63 Epoch 1/20
64 23/23 [==============================] - 1s 17ms/step
   - loss: 0.6950 - accuracy: 0.5435
65 Epoch 2/20
66 23/23 [==============================] - 1s 24ms/step
   - loss: 0.6856 - accuracy: 0.5707
67 Epoch 3/20
68 23/23 [==============================] - 1s 29ms/step
   - loss: 0.6736 - accuracy: 0.6033
69 Epoch 4/20
70 23/23 [==============================] - 1s 29ms/step
   - loss: 0.6698 - accuracy: 0.6087
71 Epoch 5/20
72 23/23 [==============================] - 1s 30ms/step
   - loss: 0.6336 - accuracy: 0.6250
73 Epoch 6/20
74 23/23 [==============================] - 1s 32ms/step
   - loss: 0.6009 - accuracy: 0.6848
75 Epoch 7/20
76 23/23 [==============================] - 1s 28ms/step
   - loss: 0.6082 - accuracy: 0.6685
77 Epoch 8/20
78 23/23 [==============================] - 1s 27ms/step
   - loss: 0.5572 - accuracy: 0.7120
79 Epoch 9/20
80 23/23 [==============================] - 1s 28ms/step
   - loss: 0.5716 - accuracy: 0.6685
81 Epoch 10/20
82 23/23 [==============================] - 1s 30ms/step
   - loss: 0.5484 - accuracy: 0.7228
83 Epoch 11/20
84 23/23 [==============================] - 1s 25ms/step
   - loss: 0.6169 - accuracy: 0.6685
85 Epoch 12/20
```

```
 86 23/23 [==============================] - 1s 27ms/
    step - loss: 0.5620 - accuracy: 0.7065
 87 Epoch 13/20
 88 23/23 [==============================] - 1s 28ms/
    step - loss: 0.5545 - accuracy: 0.7500
 89 Epoch 14/20
 90 23/23 [==============================] - 1s 26ms/
    step - loss: 0.5504 - accuracy: 0.7065
 91 Epoch 15/20
 92 23/23 [==============================] - 1s 28ms/
    step - loss: 0.5417 - accuracy: 0.6576
 93 Epoch 16/20
 94 23/23 [==============================] - 1s 26ms/
    step - loss: 0.5880 - accuracy: 0.7500
 95 Epoch 17/20
 96 23/23 [==============================] - 1s 25ms/
    step - loss: 0.5312 - accuracy: 0.7554
 97 Epoch 18/20
 98 23/23 [==============================] - 1s 26ms/
    step - loss: 0.5637 - accuracy: 0.7120
 99 Epoch 19/20
100 23/23 [==============================] - 1s 28ms/
    step - loss: 0.5503 - accuracy: 0.7337
101 Epoch 20/20
102 23/23 [==============================] - 1s 24ms/
    step - loss: 0.5184 - accuracy: 0.7174
103
104 Testing---------------
105 2/2 [==============================] - 0s 10ms/step
     - loss: 0.3408 - accuracy: 0.8913
106 test loss; 0.34075698256492615
107 test accuracy: 0.8913043737411499
108 Model Saved.
109
110 Process finished with exit code 0
111
```