```
1 C:\Users\Lenovo\AppData\Local\Programs\Python\
  Python39\python.exe D:/2022-Automated-test/
  FaceRecognition/faceRecognition/train_model.py
 2 2022-12-01 15:50:22.055192: I tensorflow/core/
  platform/cpu_feature_quard.cc:193] This TensorFlow
  binary is optimized with oneAPI Deep Neural Network
  Library (oneDNN) to use the following CPU
  instructions in performance-critical operations:
   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.
    super().__init__(name, **kwargs)
 6 Model: "sequential"
  Layer (type)
                             Output Shape
                Param #
=========
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
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
  )
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
45
                               (None, 512
46 flatten (Flatten)
   )
                  0
47
48 dense (Dense)
                               (None, 512
                  262656
   )
49
50 activation_4 (Activation) (None, 512
  )
51
52 dropout_4 (Dropout)
                            (None, 512
  )
                  0
53
                               (None, 2
54 dense_1 (Dense)
                    1026
55
56 activation_5 (Activation) (None, 2
  )
                    0
57
```

```
=========
59 Total params: 622,306
60 Trainable params: 622,306
61 Non-trainable params: 0
62 _____
63 Epoch 1/20
64 23/23 [============ ] - 2s 23ms/step
  - loss: 0.6867 - accuracy: 0.5815
65 Epoch 2/20
- loss: 0.6708 - accuracy: 0.5924
67 Epoch 3/20
- loss: 0.6943 - accuracy: 0.5924
69 Epoch 4/20
70 23/23 [============= ] - 1s 28ms/step
  - loss: 0.7087 - accuracy: 0.5054
71 Epoch 5/20
72 23/23 [============== ] - 1s 27ms/step
  - loss: 0.6795 - accuracy: 0.5652
73 Epoch 6/20
74 23/23 [============== ] - 1s 27ms/step
  - loss: 0.6591 - accuracy: 0.6359
75 Epoch 7/20
- loss: 0.6053 - accuracy: 0.6957
77 Epoch 8/20
- loss: 0.6139 - accuracy: 0.6793
79 Epoch 9/20
80 23/23 [============== ] - 1s 26ms/step
  - loss: 0.6005 - accuracy: 0.6467
81 Epoch 10/20
82 23/23 [============== ] - 1s 25ms/step
  - loss: 0.5818 - accuracy: 0.6685
83 Epoch 11/20
84 23/23 [============= ] - 1s 25ms/step
  - loss: 0.5958 - accuracy: 0.6848
85 Epoch 12/20
```

```
86 23/23 [============ ] - 1s 26ms/
  step - loss: 0.5119 - accuracy: 0.7337
87 Epoch 13/20
88 23/23 [============= ] - 1s 26ms/
  step - loss: 0.5571 - accuracy: 0.7391
89 Epoch 14/20
step - loss: 0.5942 - accuracy: 0.7174
91 Epoch 15/20
92 23/23 [============== ] - 1s 24ms/
  step - loss: 0.5535 - accuracy: 0.7120
93 Epoch 16/20
94 23/23 [============= ] - 1s 25ms/
  step - loss: 0.5125 - accuracy: 0.7283
95 Epoch 17/20
step - loss: 0.5042 - accuracy: 0.7337
97 Epoch 18/20
98 23/23 [============= ] - 1s 26ms/
  step - loss: 0.5797 - accuracy: 0.7174
99 Epoch 19/20
step - loss: 0.5245 - accuracy: 0.7337
101 Epoch 20/20
step - loss: 0.5565 - accuracy: 0.7609
103
104 Testing-----
- loss: 0.4900 - accuracy: 0.7609
106 test loss; 0.49004584550857544
107 test accuracy: 0.760869562625885
108 Model Saved.
109
110 Process finished with exit code 0
111
```