1	/Users/ahmedalanazi/PycharmProjects/ICP11/venv/bin/python / Users/ahmedalanazi/PycharmProjects/ICP11/main.py						
2	2021-04-17 03:54:21.719707: I tensorflow/compiler/jit/						
	xla_cpu_device.cc:41] Not cre	eating >	KLA d	devi	ces,		
_	tf_xla_enable_xla_devices not	t set					
	Model: "sequential"						
4							
5	Layer (type)	Output	Shap	ре			
	Param #	•					
6	=======================================	======	====	====	========	====	
	=====						
7	conv2d (Conv2D)	(None,	32,	32,	32)	896	
8							
0	deposit (Deposit)	(None	70	70	70)	0	
7	dropout (Dropout)	(None,	32,	32,	32)	0	
10							
11	conv2d_1 (Conv2D)	(None,	32,	32,	32)	9248	
12							
1.3	max_pooling2d (MaxPooling2D)	(None	16.	16.	32)	0	
10	max_pooting2a (naxi ooting2b)	(None,	10,	10,	02)	Ü	
14							
15	conv2d_2 (Conv2D)	(None,	16,	16,	64)		
1/	18496						
16							
17	dropout_1 (Dropout)	(None,	16.	16.	64)	0	
_,	a. oposi_1 (5. oposi)	(110110)			3 .,	Ū	
18							
19	conv2d_3 (Conv2D)	(None,	16.	16.	64)		
_,	36928	, ,	,	,	- •		
20							
21	<pre>max_pooling2d_1 (MaxPooling2</pre>	(None,	8, 8	3, 6	4)	0	
22							
∠ ∠							

File - ı	main			
	conv2d_4 (Conv2D) 73856	(None,	8, 8, 128)	
24				
25	dropout_2 (Dropout)	(None,	8, 8, 128)	0
26				
27	conv2d_5 (Conv2D)	(None,	8, 8, 128)	
28	147584			
	<pre> max_pooling2d_2 (MaxPooling2</pre>			0
30				
31	flatten (Flatten)	(None,	2048)	0
32				
33	dropout_3 (Dropout)	(None,	2048)	0
34				
35	dense (Dense) 2098176	(None,	1024)	
36				
37	dropout_4 (Dropout)	(None,	1024)	0
38				
39	dense_1 (Dense) 524800	(None,	512)	
40				
41	dropout_5 (Dropout)	(None,	512)	0
42				
43	dense_2 (Dense)	(None,	10)	5130
44	=======================================	=====	==============	====

```
45 Total params: 2,915,114
46 Trainable params: 2,915,114
47 Non-trainable params: 0
49 None
50 2021-04-17 03:54:23.214438: I tensorflow/compiler/mlir/
  mlir_graph_optimization_pass.cc:116] None of the MLIR
  optimization passes are enabled (registered 2)
51 Epoch 1/25
step - loss: 2.0337 - accuracy: 0.2395 - val_loss: 1.5370
  - val_accuracy: 0.4250
53 Epoch 2/25
step - loss: 1.4551 - accuracy: 0.4654 - val_loss: 1.2965
  - val_accuracy: 0.5262
55 Epoch 3/25
step - loss: 1.2457 - accuracy: 0.5448 - val_loss: 1.1142
  - val_accuracy: 0.6013
57 Epoch 4/25
58 1563/1563 [============= ] - 1443s 924ms/
  step - loss: 1.0793 - accuracy: 0.6134 - val_loss: 0.9597
  - val_accuracy: 0.6571
59 Epoch 5/25
step - loss: 0.9566 - accuracy: 0.6611 - val_loss: 0.9170
  - val_accuracy: 0.6755
61 Epoch 6/25
step - loss: 0.8690 - accuracy: 0.6941 - val_loss: 0.8630
  - val_accuracy: 0.7011
63 Epoch 7/25
step - loss: 0.8026 - accuracy: 0.7158 - val_loss: 0.7807
  - val_accuracy: 0.7263
65 Epoch 8/25
66 1563/1563 [============= ] - 579s 370ms/
  step - loss: 0.7309 - accuracy: 0.7418 - val_loss: 0.7572
  - val_accuracy: 0.7364
67 Epoch 9/25
- loss: 0.6990 - accuracy: 0.7553 - val_loss: 0.7374 -
```

```
68 val_accuracy: 0.7434
69 Epoch 10/25
step - loss: 0.6425 - accuracy: 0.7750 - val_loss: 0.7091
  - val_accuracy: 0.7533
71 Epoch 11/25
step - loss: 0.6081 - accuracy: 0.7863 - val_loss: 0.6785
  - val_accuracy: 0.7680
73 Epoch 12/25
step - loss: 0.5735 - accuracy: 0.7962 - val_loss: 0.6544
  - val_accuracy: 0.7751
75 Epoch 13/25
step - loss: 0.5491 - accuracy: 0.8056 - val_loss: 0.6787
  - val_accuracy: 0.7684
77 Epoch 14/25
step - loss: 0.5237 - accuracy: 0.8153 - val_loss: 0.6554
  - val_accuracy: 0.7770
79 Epoch 15/25
step - loss: 0.5103 - accuracy: 0.8180 - val_loss: 0.6308
  - val_accuracy: 0.7906
81 Epoch 16/25
step - loss: 0.4872 - accuracy: 0.8291 - val_loss: 0.6221
  - val_accuracy: 0.7899
83 Epoch 17/25
- loss: 0.4601 - accuracy: 0.8360 - val_loss: 0.6179 -
 val_accuracy: 0.7936
85 Epoch 18/25
step - loss: 0.4410 - accuracy: 0.8424 - val_loss: 0.6145
  - val_accuracy: 0.7931
87 Epoch 19/25
step - loss: 0.4237 - accuracy: 0.8498 - val_loss: 0.6191
  - val_accuracy: 0.7948
89 Epoch 20/25
step - loss: 0.4085 - accuracy: 0.8562 - val_loss: 0.6112
```

```
- val_accuracy: 0.7965
91 Epoch 21/25
step - loss: 0.3949 - accuracy: 0.8596 - val_loss: 0.6097
    - val_accuracy: 0.8020
93 Epoch 22/25
step - loss: 0.3758 - accuracy: 0.8687 - val_loss: 0.5999
    - val_accuracy: 0.8020
95 Epoch 23/25
step - loss: 0.3612 - accuracy: 0.8714 - val_loss: 0.6119
    - val_accuracy: 0.7984
97 Epoch 24/25
step - loss: 0.3571 - accuracy: 0.8714 - val_loss: 0.6060
    - val_accuracy: 0.8029
99 Epoch 25/25
step - loss: 0.3420 - accuracy: 0.8767 - val_loss: 0.6115
    - val_accuracy: 0.8040
101 Accuracy: 80.40%
102 9
103 /Users/ahmedalanazi/PycharmProjects/ICP11/venv/lib/python3
   .7/site-packages/tensorflow/python/keras/engine/sequential
   .py:450: UserWarning: `model.predict_classes()` is
   deprecated and will be removed after 2021-01-01. Please
   use instead:* `np.argmax(model.predict(x), axis=-1)`,
   your model does multi-class classification
                                         (e.q. if it
   uses a `softmax` last-layer activation).* `(model.predict(
   x) > 0.5).astype("int32")`, if your model does binary
   classification (e.g. if it uses a `sigmoid` last-layer
   activation).
104
    warnings.warn('`model.predict_classes()` is deprecated
105 actual [0. 0. 0. 0. 0. 0. 0. 1. 0.] predicted 8
106 actual [1. 0. 0. 0. 0. 0. 0. 0. 0.] predicted 0
107 actual [0. 0. 0. 0. 0. 1. 0. 0. 0.] predicted 6
108 actual [0. 0. 0. 0. 0. 1. 0. 0. 0.] predicted 6
109
110 Process finished with exit code 0
111
```