## Results:

1.

Test accuracy = 94.75%
Model: "sequential\_1"

Layer (type)	Output	Shape	Param #
conv2d_1 (Conv2D)	(None,	60, 60, 256)	2560
max_pooling2d_1 (MaxPooling2	(None,	30, 30, 256)	0
conv2d_2 (Conv2D)	(None,	30, 30, 256)	590080
max_pooling2d_2 (MaxPooling2	(None,	15, 15, 256)	0
conv2d_3 (Conv2D)	(None,	15, 15, 256)	590080
max_pooling2d_3 (MaxPooling2	(None,	7, 7, 256)	0
flatten_1 (Flatten)	(None,	12544)	0
dense_1 (Dense)	(None,	64)	802880
dense_2 (Dense)	(None,	1)	65 ======

Total params: 1,985,665
Trainable params: 1,985,665
Non-trainable params: 0

## None

Train on 320 samples, validate on 80 samples Epoch 1/20

## 2.

Test accuracy = 95.75%

Model: "sequential\_1"

Layer (type)	Output Shape	Param #
conv2d_1 (Conv2D)	(None, 60, 60, 256)	2560
max_pooling2d_1 (MaxPooling2	(None, 30, 30, 256)	0
conv2d_2 (Conv2D)	(None, 30, 30, 256)	590080
max_pooling2d_2 (MaxPooling2	(None, 15, 15, 256)	0
conv2d_3 (Conv2D)	(None, 15, 15, 256)	590080
max_pooling2d_3 (MaxPooling2	(None, 7, 7, 256)	0
flatten_1 (Flatten)	(None, 12544)	0

dense_1 (Dense)	(None, 64)	802880
dense_2 (Dense)	(None, 1)	65

Total params: 1,985,665 Trainable params: 1,985,665 Non-trainable params: 0

None

Train on 320 samples, validate on 80 samples

Epoch 1/20

3.

Test accuracy = 94.00%

Model: "sequential\_1"

Layer (type)	Output Shape	Param #
conv2d_1 (Conv2D)	(None, 60, 60, 256)	2560
max_pooling2d_1 (MaxPooling2	(None, 30, 30, 256)	0
conv2d_2 (Conv2D)	(None, 30, 30, 256)	590080
max_pooling2d_2 (MaxPooling2	(None, 15, 15, 256)	0
conv2d_3 (Conv2D)	(None, 15, 15, 256)	590080
max_pooling2d_3 (MaxPooling2	(None, 7, 7, 256)	0
flatten_1 (Flatten)	(None, 12544)	0
dense_1 (Dense)	(None, 64)	802880
dense_2 (Dense)	(None, 1)	65

Total params: 1,985,665 Trainable params: 1,985,665 Non-trainable params: 0

None

Train on 300 samples, validate on 100 samples Epoch 1/20

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4.

Test accuracy = 95.50%

Model: "sequential\_1"

Layer (type)	Output	Shap	e		Param	#
=======================================	======	====	====	========	======	====
conv2d_1 (Conv2D)	(None,	60,	60,	256)	2560	

<pre>max_pooling2d_1 (MaxPooling2</pre>	(None,	30, 30, 256)	0
conv2d_2 (Conv2D)	(None,	30, 30, 256)	590080
max_pooling2d_2 (MaxPooling2	(None,	15, 15, 256)	0
conv2d_3 (Conv2D)	(None,	15, 15, 256)	590080
max_pooling2d_3 (MaxPooling2	(None,	7, 7, 256)	0
flatten_1 (Flatten)	(None,	12544)	0
dense_1 (Dense)	(None,	64)	802880
dense_2 (Dense)	(None,	1)	65

Total params: 1,985,665 Trainable params: 1,985,665 Non-trainable params: 0

None

Train on 150 samples, validate on 50 samples

Epoch 1/20