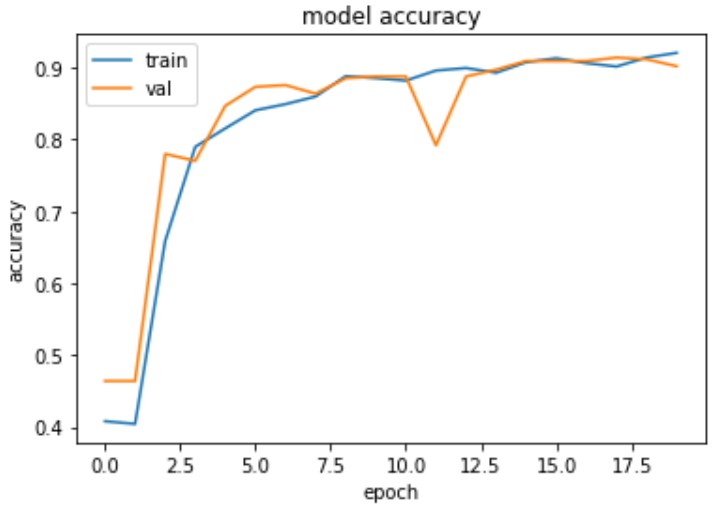
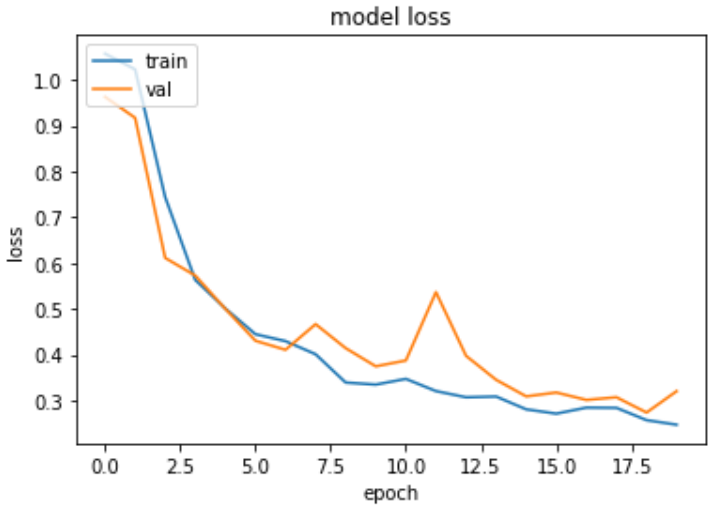
```
# SqueezeNet
model_squeezeNet = SqueezeNet()
history_squeezeNet = train(model_squeezeNet, 'squeezeNet')
plot_data(history_squeezeNet)
display_metrics(model_squeezeNet)
```

```
Epoch 00013: val_accuracy did not improve from 0.88756
Epoch 14/20
136/136 [==============================] - 63s 461ms/step - loss: 0.3055 - accuracy: 0.8928 - val_loss: 0.3452 - val_accuracy: 0.8971

Epoch 00014: val_accuracy improved from 0.88756 to 0.89713, saving model to /content/drive/My Drive/COVID/Vanshika/Models/squeezeNet.h5
Epoch 15/20
136/136 [==============================] - 63s 463ms/step - loss: 0.2776 - accuracy: 0.9075 - val_loss: 0.3091 - val_accuracy: 0.9091

Epoch 00015: val_accuracy improved from 0.89713 to 0.90909, saving model to /content/drive/My Drive/COVID/Vanshika/Models/squeezeNet.h5
Epoch 16/20
136/136 [==============================] - 63s 466ms/step - loss: 0.2703 - accuracy: 0.9130 - val_loss: 0.3175 - val_accuracy: 0.9091

Epoch 00016: val_accuracy did not improve from 0.90909
Epoch 17/20
136/136 [==============================] - 63s 460ms/step - loss: 0.2823 - accuracy: 0.9061 - val_loss: 0.3014 - val_accuracy: 0.9091

Epoch 00017: val_accuracy did not improve from 0.90909
Epoch 18/20
136/136 [==============================] - 63s 462ms/step - loss: 0.2806 - accuracy: 0.9014 - val_loss: 0.3071 - val_accuracy: 0.9139

Epoch 00018: val_accuracy improved from 0.90909 to 0.91388, saving model to /content/drive/My Drive/COVID/Vanshika/Models/squeezeNet.h5
Epoch 19/20
136/136 [==============================] - 63s 464ms/step - loss: 0.2559 - accuracy: 0.9139 - val_loss: 0.2738 - val_accuracy: 0.9115

Epoch 00019: val_accuracy did not improve from 0.91388
Epoch 20/20
136/136 [==============================] - 62s 457ms/step - loss: 0.2464 - accuracy: 0.9205 - val_loss: 0.3205 - val_accuracy: 0.9019

Epoch 00020: val_accuracy did not improve from 0.91388
dict_keys(['val_loss', 'val_accuracy', 'loss', 'accuracy'])
```

```
Epoch 00020: val_accuracy did not improve from 0.91388
dict_keys(['val_loss', 'val_accuracy', 'loss', 'accuracy'])
```





```
                  precision    recall  f1-score   support

       COVID-19       0.96      0.81      0.88        31
         Normal       0.89      0.97      0.93       193
Viral Pneumonia       0.94      0.88      0.91       194

       accuracy                           0.91       418
      macro avg       0.93      0.88      0.90       418
   weighted avg       0.92      0.91      0.91       418

Confusion Matrix
[[ 25   1   5]
 [  0 187   6]
 [  1  23 170]]
```