Project Development Phase
Model Performance Test

Metrics-

Classification Model:

Confusion Matrix - , Accuray Score

& Classification Report -

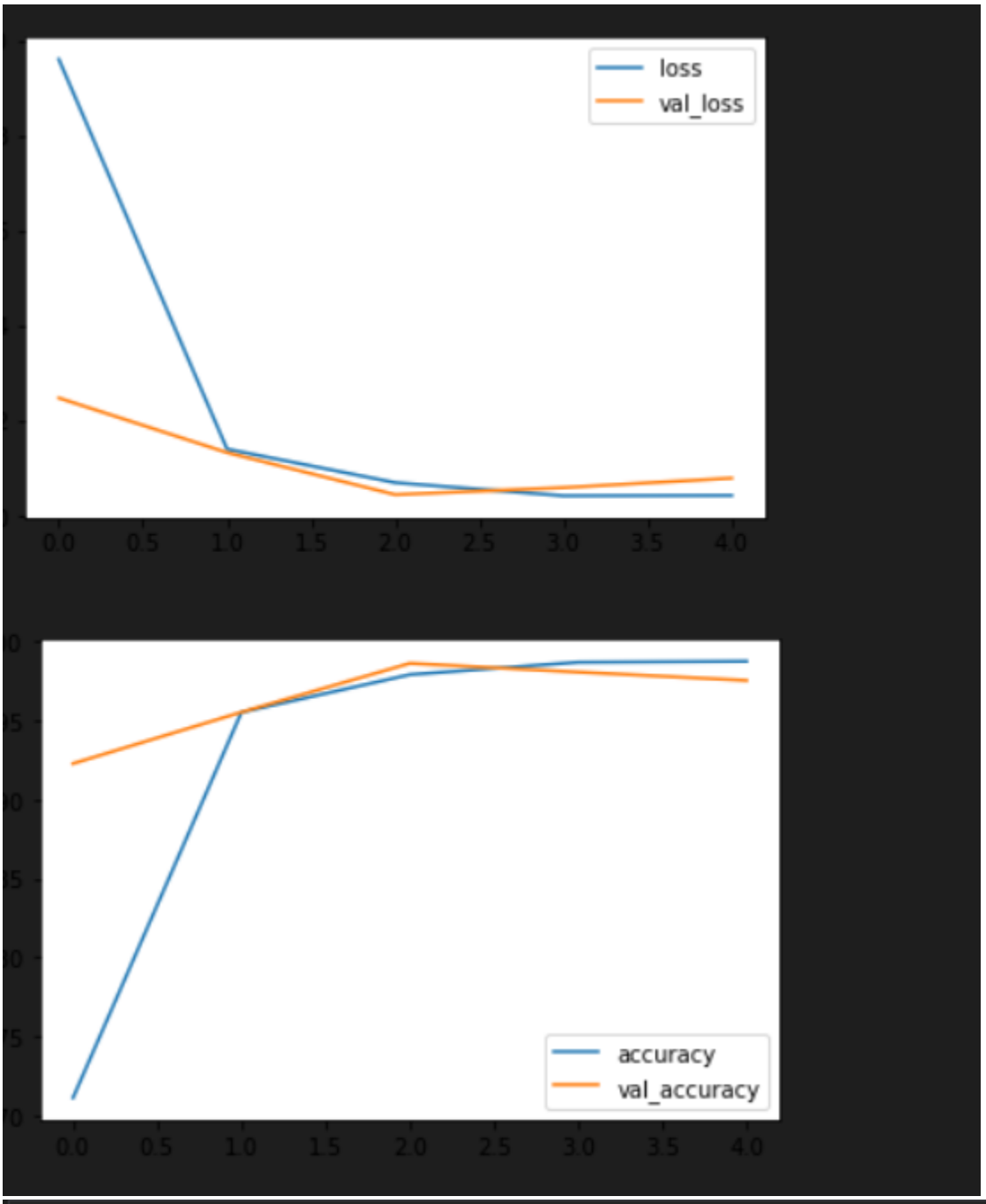
```
from sklearn.metrics import classification_report, confusion_matrix
print(classification_report(y_test,predictions))
```

```
816/816 [==============================] - 10s 12ms/step
              precision    recall  f1-score   support

           0       0.99      0.98      0.99       900
           1       1.00      0.98      0.99       900
           2       1.00      1.00      1.00       900
           3       0.94      1.00      0.97       900
           4       0.96      0.97      0.96       900
           5       0.99      0.98      0.99       900
           6       0.98      1.00      0.99       900
           7       0.98      1.00      0.99       900
           8       0.99      0.99      0.99       900
           9       0.99      1.00      1.00       900
          10       0.87      1.00      0.93       900
          11       1.00      0.98      0.99       900
          12       0.98      0.97      0.98       900
          13       0.98      0.99      0.99       900
          14       0.96      0.97      0.97       900
          15       0.98      0.96      0.97       900
          16       0.98      0.99      0.99       900
          17       1.00      0.92      0.96       900
          18       0.99      0.97      0.98       900
          19       0.99      0.97      0.98       900
          20       0.91      1.00      0.95       900
          21       0.98      0.88      0.93       900
...
    accuracy                           0.98     26100
   macro avg       0.98      0.98      0.98     26100
weighted avg       0.98      0.98      0.98     26100
```

Tuning the Model-

Validation Method-




```
model.evaluate(X_test,y_cat_test,verbose=0)
```

```
[0.07869397103786469, 0.9754406213760376]
```