



a) Accuracy for Base model: 0.48

Accuracy for fine tuned model: 0.681

b) Time taken for training - 47mins

c)

```
trainable model parameters: 262364160  
all model parameters: 1521392640  
percentage of trainable model parameters: 17.24%
```

After Qlora:

```
trainable model parameters: 20971520  
all model parameters: 1542364160  
percentage of trainable model parameters: 1.36%
```

d) Resources - Colab (T4 GPU)

16GB GPU and 60GB disk

e)