# Neural Network Experiments

## Model 1

Description: Model 1 has 3 layers (output layer included), the output layer had size of 10 based on our number of classes

Accuracy: 0.815

Precision (Bonus): 1.69

Recall (Bonus): 1.63

## Model 2

Description: Model 2 has 4 layers (output layer included)

Accuracy: 0.67

Precision (Bonus): 1.75

Recall (Bonus): 1.96

## Extra Model

We have built a **Decision tree** to classify our data and it had the following accuracy

Accuracy = 0.5496

## CNN

Building our CNN we have made sure that input\_shape is equal to our images size which 100 \* 100 in addition to the number of channels so it has input\_shape = 100 \* 100 \* 3

## Optimizers used in all models

**Adam**

## Loss of all models

**sparse\_categorical\_crossentropy**