**CNN Assignment**

1. **Data pipeline**

### Data reading

### You have read the image by defining the path for train and test image correctly. Good Job.

### Dataloader

### You created train and validation dataset from the train directory you created earlier. Your batch is 32 and resized it as 180x180. Good job with creating and processing.

### Data visualization

### You have visualized one of the intense of all the nine classes. This gave you good insights regarding the images.

### Augmentation

### Nice observation about the issue of overfitting in the model training. You chose an appropriate data augmentation

### Strategy to resolve under fitting/overfitting to add more images to the entire training dataset.

### Class Distribution

### You have rightly shown the class distribution of the training data set and identified the class with least number of

### Samples/the class which dominates the data in terms of proportionate number of samples etc. Good job with analysis.

### Class imbalance handling

### You rightly rectified class imbalances present in the training dataset by implementing the starter codes to add 500

### Images to each class using Augmentor library.

### Model Building

### Model building on raw dataset

### Model training and test accuracy is very low. Model is highly under fit need to restructure model again. In output layer, activation function should be softmax

### Model building on augmented dataset

### Model training and test accuracy is very low. Model is highly under fit need to restructure model again, redesign image generator again

### Model building on rectified dataset

### Model training and test accuracy is very good. Robust Model build, Good work.

### Coding Guidelines

### Repository have Jupiter notebook and readme file . . . . .

You have accurately trained a CNN model for 20 epochs on the original training dataset. which are normalized to values between (0,1). Also you have mentioned findings after the model fit .

You have accurately trained a CNN model using dropout layer for 20 epochs on the original training dataset, which are normalized to values between (0,1). Also You have mentioned findings.