Problem Statement:

To build a CNN based model which can accurately detect melanoma. Melanoma is a type of cancer that can be deadly if not detected early. It accounts for 75% of skin cancer deaths. A solution which can evaluate images and alert the dermatologists about the presence of melanoma has the potential to reduce a lot of manual effort needed in diagnosis.

Conclusions:

1. Given dataset is overfitting : so augmentation of dataset is done and model is rebuilt

2. Overfit issue is fixed but results are with lesser accuracy for trained dataset , it is clearly shows model is underfitting, one of the way to address is by checking for class distribution

3. Class distribution is not normal distribution
    - seborrheic keratosis[class - 6] has least no of samples
    - pigmented benign keratosis [class - 5] dominates number of samples

4. So added more images to train dataset using augmentor , and model is rebuilt
5. Class rebalance helped the model to overcome underfitting issue , and get the better fit model