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**J009**

**B.Tech (Data Science) – 3rd Year**

**J1 Batch**

# Practical- 7

**Aim:**

To further understand how to go about data augmentation using ImageNet.

**Observations:**

* The images from the site are downloaded and saved in the directory in a folder.
* The images are passed through a generator function for both train and validation sets.
* A Sequential model is created with 6 layers. The 6 layers are conv2D, flatten, dense, relu, dense, sigmoid. The accuracy of the model is:

loss: 0.6488 - acc: 0.6250 - val\_loss: 0.4866 - val\_acc: 0.7778

* The model is then evaluated and a roc\_auc\_score is generated.

AUC validation score

0.9090909090909091

* The output is predicted where 30 are classified accurately, and 28 are misclassified.

A screenshot of a cell phone

Description automatically generated

**Inference:**

Learnt about confusion matrix while classifying and data augmentation to get images from ImageNet.