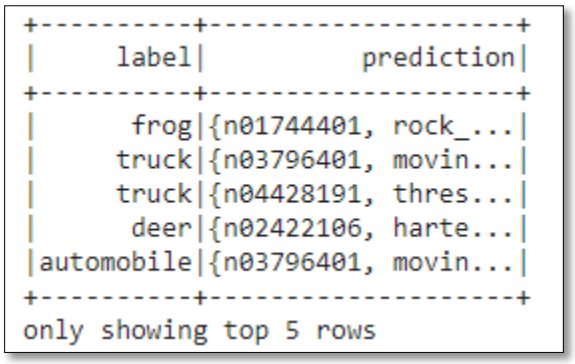
Lab-8 | EE17B157

1. **Modify the above code to run inference on CIFAR 10 dataset using Pyspark**

The CIFAR 10 dataset is loaded from Keras Datasets – CIFAR10 small images classification dataset. After loading train and test dataset, dataframe is constructed using spark. Other functions are similar as in the case of code for flowers dataset. The code for CIFAR 10 dataset is attached to this report.



```
+----------+--------------------+
|     label|          prediction|
+----------+--------------------+
|      frog|{n01744401, rock_...|
|     truck|{n03796401, movin...|
|     truck|{n04428191, thres...|
|      deer|{n02422106, harte...|
|automobile|{n03796401, movin...|
+----------+--------------------+
only showing top 5 rows
```

2. **Try out a few different models pre-trained on Imagenet and report which one works better**

The tried out models: MobileNet_V2, GoogleNet, AlexNet, Vgg16, MobileNet_V3, SqueezeNet

The MobileNet versions and Vgg16 models work better in comparison to AlexNet and SqueezeNet

The outputs tried on 40 samples is printed out in the python notebook attached with the report.