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# Session Problem Statement - CIFAR-10 Image Classification

#### Context

CIFAR-10 (Canadian Institute For Advanced Research) is a collection of images with 10 different classes representing airplanes, cars, birds, cats, deer, dogs, frogs, horses, ships, and trucks. CIFAR-10 is a set of images that can be used to teach a computer how to recognize objects.

Since the images in CIFAR-10 are low-resolution (32x32x3), this dataset can allow researchers to quickly try different algorithms to see what works. Various kinds of convolutional neural networks tend to be the best at recognizing the images in CIFAR-10.

### Objective

In this case study, we will build a multi-class classification algorithm to predict 10 different classes of the CIFAR-10 dataset using Convolutional Neural Networks and Transfer Learning.

#### **Dataset**

The CIFAR-10 dataset consists of 60000 32x32x3, i.e., color images in 10 classes, with 6000 images per class. There are 50000 training images and 10000 test images. You can learn more about this dataset here - https://www.cs.toronto.edu/~kriz/cifar.html

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