**HW 6b: Image classification using custom dataset (15 Points) – Due 15 Dec**

In the previous HW, we did image classification on CIFAR10 dataset. In this HW, you will use a custom dataset of your own choice. You can pick any custom dataset (the dataset should not be available as part of pytorch datasets). Write your own class to create dataset.

**Requirements:**

1. Write a class to create a dataset
2. Try at least two pre-trained models
3. For each pre-trained model try unfreezing different layers
4. Try some data augmentation.
5. Try two different data loaders (OncCycleLR) is required. You can try one more.

Some suggested datasets (<https://course.fast.ai/datasets>) : Table

Description automatically generated

From these, Imagenette might be the easiest one. I will encourage students to try this on your own images or any other dataset from Kaggle as well.

A project on your CVs with a custom dataset will help you standout. If you are not able to complete the project then you can keep Imagenette as a backup dataset.