PROJECT

1. Data:

Fruits 360 dataset[i] contains the images of 95 types of fruits such as Apples (Golden, Red Yellow,…), Apricot, Banana,….

- Total number of images: 65 429 images
- Training set size: 48 905 images (one fruit per image)
- Test set size: 16 421 images (one fruit per image)
- Image size: 100 x 100 pixels
- Download dataset here.

2. Problem and requirements

Problem:

In this project, you will try to design a Convolutional Neural Network (CNN) to classify the fruits in **Fruits 360** dataset.

Requirements:

a. Propose a CNN architecture to classify the images into different classes.
b. The network should be implemented by using PyTorch framework
c. Try your network with different hyper-parameters (i.e. update rule, number of epochs,) and compare the results (loss and accuracy) between different hyper-parameters.
d. Evaluate the accuracy of model by predicting the labels for the images in test set.
e. Write a small program to test your trained model. It receives an image as test image, your trained model and provides the class for the test image.

3. Submission and deadline:

Deadline: **15 February 2019**

All implementation, report should be submitted to Github.

[i] https://www.kaggle.com/moltean/fruits/home