

# Week #1: Image manipulation with Python

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## Overview

In machine learning, we usually dealt with many type of data like the following:

- tabular data (e.g. sensors, science experiment)
- image data
- sound data
- text data
- video data

Thus, it is important to familiarize with the tools associated with it.

## Python

Please use python from here

## Week 1 Task

You are given samples of cheque images.

1. Read all image in the folder and seperate them according to:
  - front
  - rear
  - image type (jpg, tif, bmp)
2. From exercise (1), try to use pandas and generate CSV file like below:

`/data/front/CSD23053114143116.front.dit.bmp`

`/data/rear/CSD23053114143116.rear.jpg`

3. Read single image from any of the newly seperated folder from (1) and inspect the following:
  - image shape
  - image size
  - image data type
4. Read image in the folder and explore/observe the following:
  - read single image as ***numpy array***
  - read all image as ***numpy array***
  - check the array properties like exercise (3)

Please use ***jupyter notebook*** for all of the exercise