In [1]:

```
import os
import cv2
import numpy as np
import imutils

# get the path of your images
path = r"C:\Users\user\OneDrive - mmu.edu.my\Documents\University\MMU\Class\Co

# create list
rgb_ori_img = []
data = [] # list with convert and resized img
gray_ori_img = []
namelabels = []
labels = []

# Loop the files(images) inside the folder
for folder in os.listdir(path):
    # print(folder)

    files = os.path.join(path, folder)
    # print(files)

    image = cv2.imread(files)
    rgb_ori_img.append(image)

    gryimage = cv2.cvtColor(image, cv2.COLOR_BGR2GRAY)   # convert ori bgr ima

    resized = cv2.resize(gryimage, (380, 380))   # resize the image
    # print(resized.shape)

    img = np.asarray(resized)
    data.append(img)
    gray_ori_img.append(gryimage)

    # get the labels and store them into a list
    label = files.split(os.path.sep)[-1]
    namelabels.append(label)
    label = label.split('_')

    label = label[1]

    if label == 'AA':
        label = 0
    elif label == 'B':
        label = 1
    else:
        label = 2

#     print(label)

    labels.append(label)

print(labels)
print(len(data))
print('Number of images : ', len(labels))
```

...

In [ ]:
```
# write the h5 file

import h5py

h5path = r"C:\Users\user\OneDrive - mmu.edu.my\Documents\University\MMU\Class\(

hf = h5py.File(h5path, 'w')

with h5py.File(h5path, 'a') as h5file:
    h5file.create_dataset('data', data=data)
    h5file.create_dataset('label', data=labels)
h5file.close()
```

In [3]:
```
# Read and check the list inside the h5 file

h5filepath = r"C:\Users\user\OneDrive - mmu.edu.my\Documents\University\MMU\Cl

import h5py
with h5py.File(h5filepath,"r") as f:
    for key in f.keys():
        print(f[key], key, f[key].name)
```

```
<HDF5 dataset "data": shape (2160, 1000, 1000), type "|u1"> data /data
<HDF5 dataset "label": shape (2160,), type "<i4"> label /label
```

In [ ]: