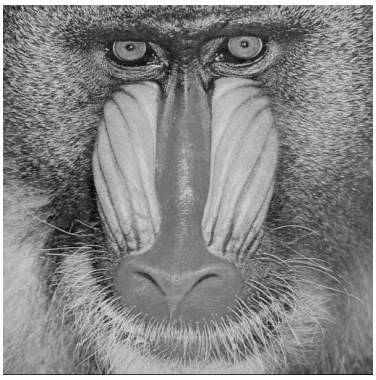
Homework 1: Adaptive Huffman Coding

In this homework you are required to implement the adaptive Huffman coding to compress the following two images: **lena.raw** and **baboon.raw**. They are both gray-level 512x512 images and each sample is of 1 byte long. You may download "irfanview" from http://www.irfanview.com (plus the plug-in) to view the images.



1. Implement the adaptive Huffman coding according to the algorithm shown in the textbook (or the three flowchart in the slide). Report the compressed file sizes and compare the results with the first-order entropy.
2. Compare the results of using original data byte and DPCM as the symbol set. Please note that the sizes of alphabet size are both 256 so the fixe-length code is 8-bit long.
3. You have to submit your code along with a report that briefly describes how you implemented it.

The deadline is **Oct. 31, 2018 11:59am (noon)**. Please submit your homework to "lms.ncu.edu.tw". The homework should be compressed into one file (.zip or .rar) with your student ID as the filename (ID#.zip or ID#.rar). The zipped file should contain your source code, the necessary compiling information and the report.