
CMPT 365 Multimedia Systems

Programming Assignment 2

Deadline 6:00pm, Apr 9, 2021

Note: This assignment is NOT group based.

Q. 1. (LZW coding) Read a sequence that consists of letters A, B, and C only and assume that the initial dictionary is

0	A
1	B
2	C

- (1) Print out the output sequence for the input sequence using the LZW coding algorithm.
- (2) Print out the dictionary in the end of the LZW coding.

The length of the input sequence is no more than 64 letters.

Q.2. 2D (Discrete Cosine Transform) Read N (an integer between 2 and 10) and then an input matrix of size $N \times N$, print out the 2D DCT transform result (rounding to integers). See Slide 41 in Lossy compression for an example. Note that you can't call any lib to do this; you have to write your own code to implement the matrix operation.