18153187

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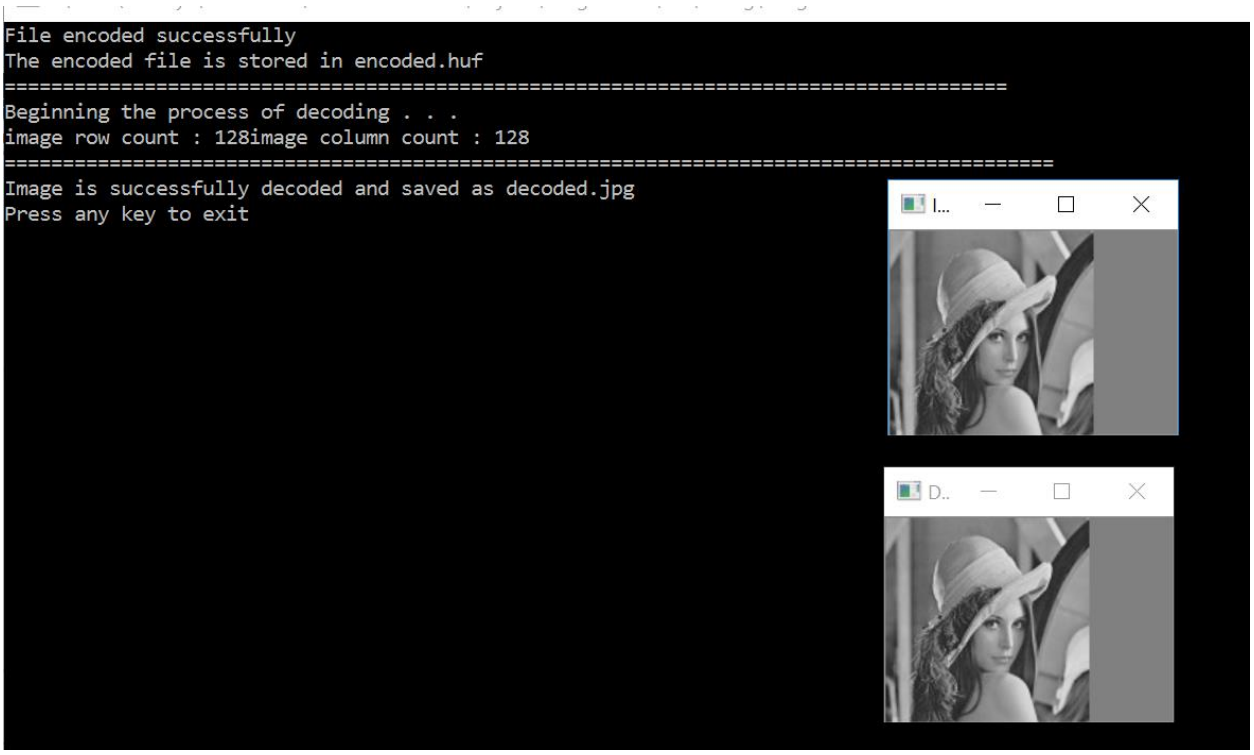
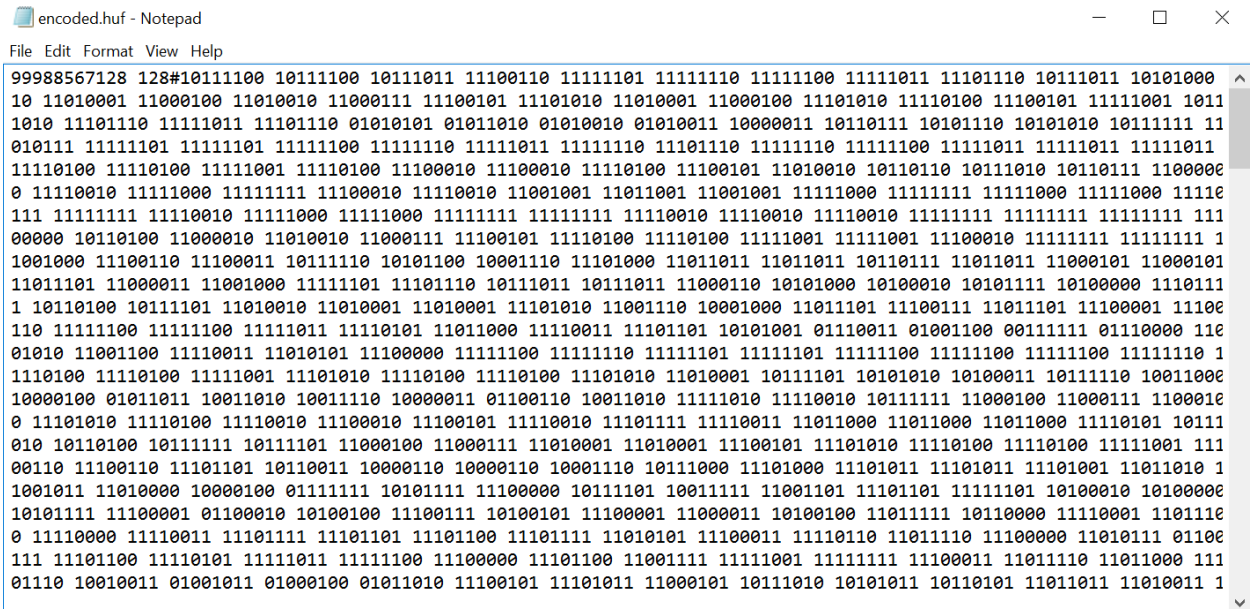
Assignment 2

SAMPLE OUTPUT:



**The image I.. represents the input image and D.. represents the decoded image in the above picture.

Below is a snapshot of the encoded.huf file.



STEPS:

A histogram is obtained, and the values are sorted based on the frequency.

Binary codes are generated. The pixel value that occurs frequently are assigned a value with smaller length than the ones with less frequent occurrences.

This is stored in a map.

The values are matched with its key, and the binary codes are written in a .huf file.

If the magic number matches, we read from the file using vectors and decode the values back.

The decoded image is stored in decoded.jpg

REFERENCES:

http://www.cplusplus.com/reference/map/map/

http://www.cplusplus.com/reference/cstdlib/qsort/

http://www.cplusplus.com/reference/vector/vector/begin/

http://en.cppreference.com/w/cpp/utility/bitset/bitset

//Thanks to Sherd for suggesting some ideas.