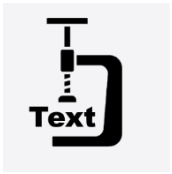
Text Compression using Huffman Code



0110 1111
CS111
6F
0100 0011
0101 0011
0011 0001
0011 0001
0011 0001

1. Start by listing all letters and frequencies (ie. number of times they occur)

2.Fill in the table listing the letters by frequency (most to least) such that the most frequent letter gets the smallest code.

Code	Letter
000	
001	
010	
011	
1000	
1001	
1010	
1011	
11000	
11001	
11010	
11011	
111100	
111101	
111110	
111101	

3. Write each letter and the corresponding Huffman code below each letter to show your text using the Huffman code.

4. Count the total number of bits use in #3 for text using Huffman code _____

5. If this same text were stored using ASCII code it would take 8 bits (1 byte) per letter.

How many bits would be needed using ASCII? _____ (total number of letters x 8)

6. Compression ratio for text = Huffman bits _____ / ASCII bits_____