

Program Assignment 2

Introduction to Data Structures and OO

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Due: 5/9

**Get the definition of Huffman concept & code from Wiki or TA.

Part 1:

Write a C++ function to build a Huffman tree by using the following alphabets and their weight:

A = 11	B = 5	C = 2	D = 3	E = 12	F = 3	G = 5
H = 6	I = 8	J = 1	K = 2	L = 4	M = 8	N = 7
O = 2	P = 2	Q = 1	R = 9	S = 6	T = 2	U = 4
V = 1	W = 10	X = 10	Y = 1	Z = 1		

Output the Huffman code represented by each letter

Part 2:

Write a C++ program to read characters from the **file** (e.g., ./test/1.txt)

Create your own Huffman tree and convert each letter to Huffman code.

Part 3:

Continue with **Part 2**, write a C++ program to read the Huffman code (e.g., 0101000....) from the **same file**.

And according to your Huffman Tree which you created in **Part 2**, decode them(Huffman code) to the characters.