Assignment -6 : Huffman Tree

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Advanced Algorithms

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Example 1:

```
72         vector<char> characters(n);
73         vector<int> frequencies(n);
74
75         // Take user input for characters and their frequencies
76         cout << "Enter the characters: ";
77         for (int i = 0; i < n; i++) {
78             cin >> characters[i];
79         }
80
81         cout << "Enter the frequencies: ";
82         for (int i = 0; i < n; i++) {
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   **TERMINAL**

```
cd "/Users/pruthvireddy/Desktop/Bharath Assignments/" && g++ assignment6
pruthvireddy@Vemulas-MacBook-Pro Bharath Assignments % cd "/Users/pruthv:
dy/Desktop/Bharath Assignments/"assignment6
Enter the number of characters: 3
Enter the characters: a b c
Enter the frequencies: 2 5 4
b: 0
a: 10
c: 11
pruthvireddy@Vemulas MacBook Pro Bharath Assignments %
```

Example 2:

```cpp
75      // Take user input for characters and their frequencies
76      cout << "Enter the characters: ";
77      for (int i = 0; i < n; i++) {
78          cin >> characters[i];
79      }
80
81      cout << "Enter the frequencies: ";
82      for (int i = 0; i < n; i++) {
83          cin >> frequencies[i];
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL

```
cd "/Users/pruthvireddy/Desktop/Bharath Assignments/" && g++ assignment6.
● pruthvireddy@Vemulas-MacBook-Pro Bharath Assignments % cd "/Users/pruthv:
dy/Desktop/Bharath Assignments/"assignment6
Enter the number of characters: 4
Enter the characters: a c d f
Enter the frequencies: 2 6 3 7
f: 0
a: 100
d: 101
c: 11
○ pruthvireddy@Vemulas-MacBook-Pro Bharath Assignments % █
```

1) **How long did you spend on this assignment ?**

   I spent approximately 6 hours on this assignment which includes coding, debugging , and refining the solution.

2) **Based on your effort, What letter grade would you say you earned ?**

   Based on my effort, I believe I earned grade A. I consistently worked through the challenges and sought improvements.

3) **Based on your solution, what letter grade would you say you earned ?**

   Based on the final solution, I would say I earned an A.

4) **Provide a summary of what doesn't work in your solution, along with an explanation of how you attempted to solve the problem and where you feel you struggled ?**

   The solution is working as expected but initially I struggled with managing node pointers and memory handling.