CMSC 204

Huffman Lab

1. Create a Huffman Tree and generate the codes for each character of the following input:

create a huffman tree

c : 1

r : 2

e : 4

a : 3

t : 2

h : 1

u : 1

f : 2

m : 1

n : 1

“ “ : 3

c : 1, h : 1, m : 1, n : 1, u : 1

f : 2, r : 2, t : 2

“ “ : 3, a : 3

e : 4

c : 1, h : 1, m : 1, n : 1, u : 1, f : 2, r : 2, t : 2, “ “ : 3, a : 3, e : 4

For consistency:

1. If same frequency – put in priority queue alphabetically; put space before other characters of the same frequency
2. Add subtrees to end of group with same priority
3. Lower number has higher priority (goes to front)

A paper with writing on it

Description automatically generated

Now encode “create a huffman tree”

111001100101001110110100000100011101100010011001111100011111100011011100101101

1. Based on the following Huffman tree and binary sequence, what is the text



1110 011 101 101 1111 1101 000 1100 010 001 100 100

huffman tree