

CMSC 204  
Huffman Lab

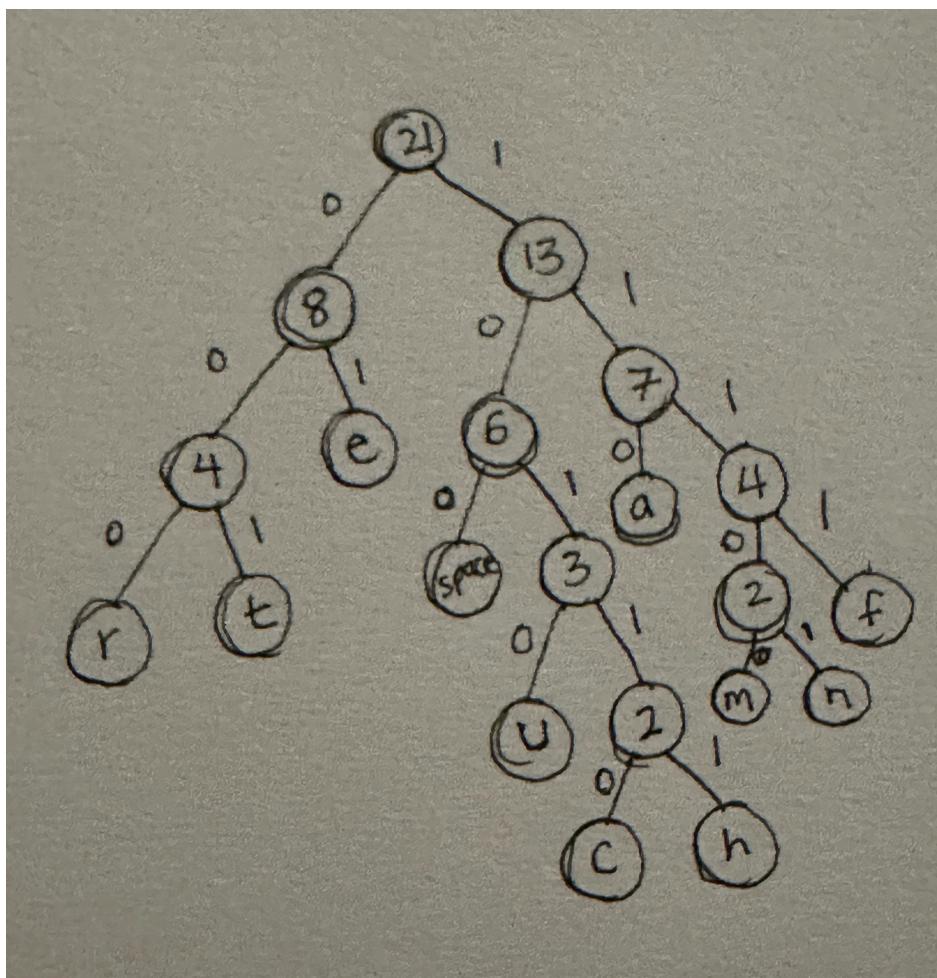
- 1) Create a Huffman Tree and generate the codes for each character of the following input:

create a huffman tree

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)

**Code is attached with submission.**

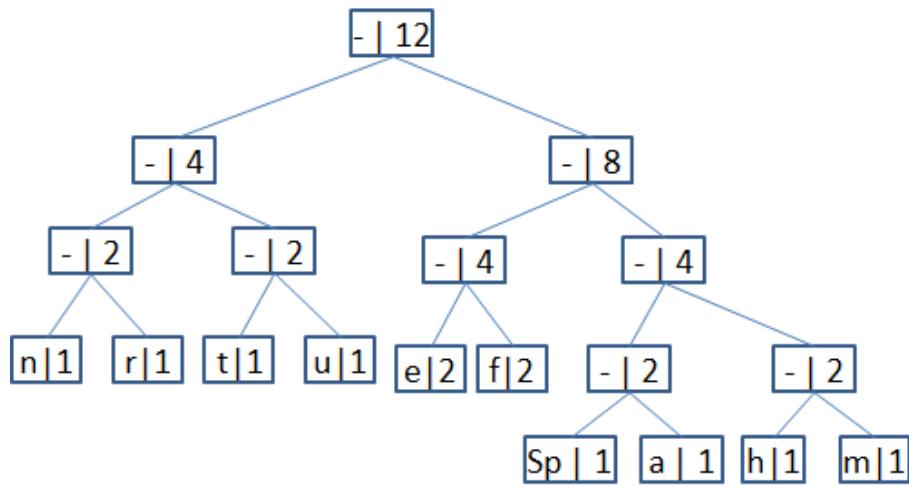


Now encode “create a huffman tree”

Encoded text - 1011000001110001011001101001011101011111111100110111011000010000101

```
Huffman Codes:  
: 100  
a: 110  
r: 000  
c: 10110  
t: 001  
e: 01  
u: 1010  
f: 1111  
h: 10111  
m: 11100  
n: 11101  
Encoded Text: 1011000001110001011001101001011101011111111100110111011000010000101
```

2) Based on the following Huffman tree and binary sequence, what is the text



111001110110111111010001100010001100100

**“Huffman tree”**