Diagrammatic Explanation

In this presentation, I have included some array and tree diagrams for better understanding of my approaches.

The Array

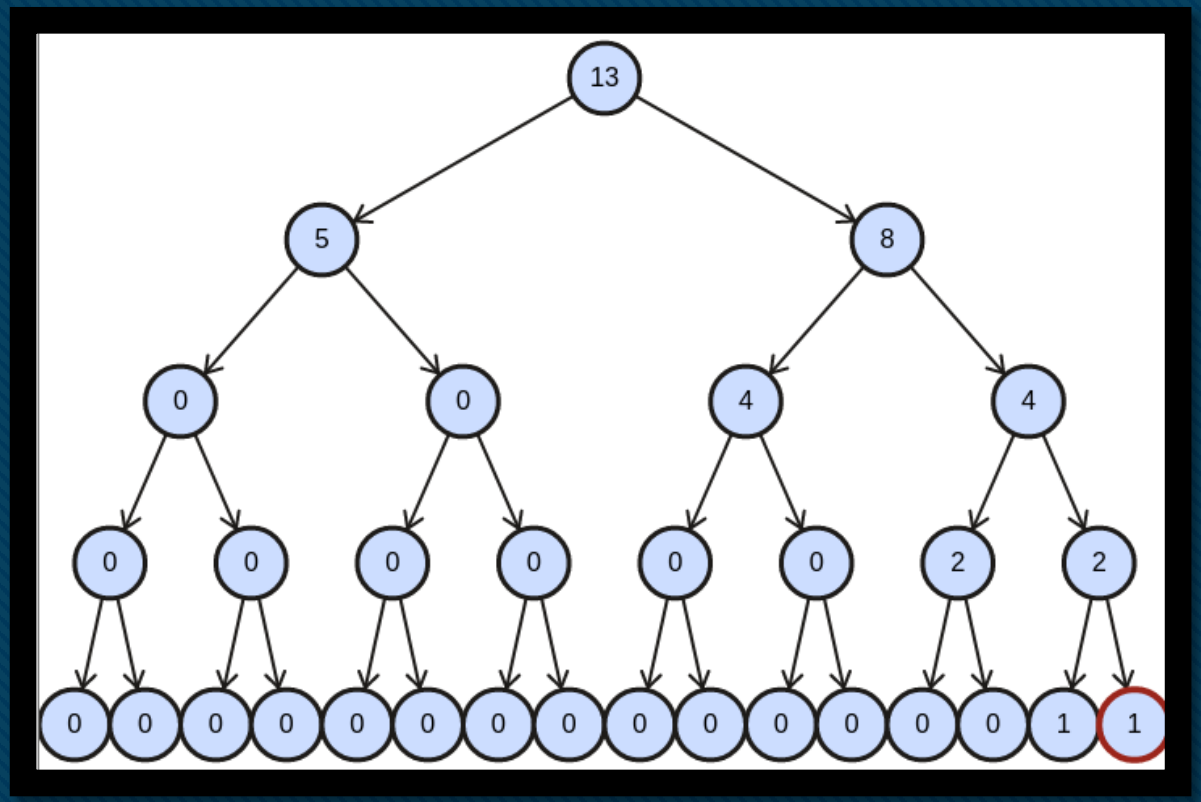
I used the same array in both approaches. But the trees are different. Array transformed Huffman tree

13	5	8	4	4	2	2	1	1

Characters	Frequency
s	5
e	4
l	2
p	1
n	1

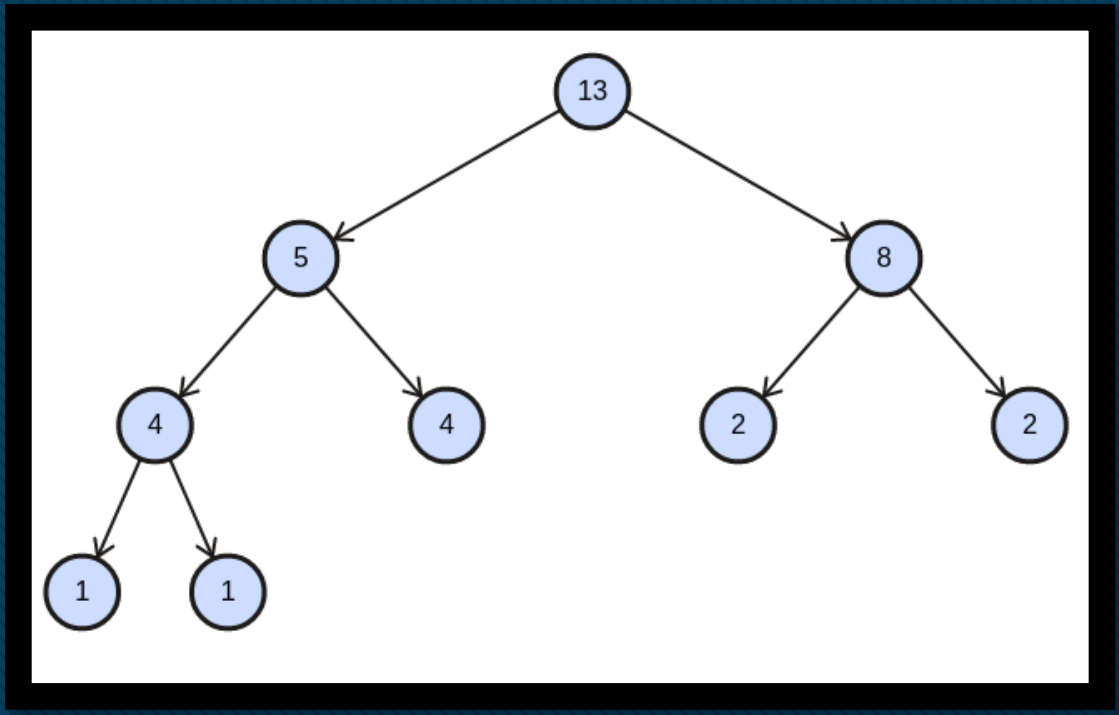
Filling Zeroes: 1st

In this approach, I filled zeroes where it was needed to make Huffman tree a heap & then use parent child node formulas to mark codes. While traversing from the character node. As the zeroes increased the loop had to run many times. Led to polynomial growthof time complexity



Heapifying : 2nd Approach

In this approach, I heapified the array in the 1st slide without adding zeroes. But some codes were replicating. So, had to drop it. But it was efficient than last one.



Thank You