

Exercises:

1. Consider a tree 7,1,6,2,5,9,10,2. You are tasked with finding both the min heap and max heap of this tree.
2. Consider another tree 35,33,42,10,14,19,27,44,26,31 Make the tree into a min heap and delete its root node and rebalance the tree to max heap and print the tree in a sorted output.
3. Assume you are tasked to schedule computer tasks. Given task from t1 to tn you must schedule them in the given manner down below.

Note:

Each task that is being pooled comes with a priority (generate this priority randomly between values 1 to 10). The value with the highest priority gets the first treatment and then subsequent nodes will get later priorities. Once the tree is built up delete the nodes accordingly to the priority (Max to min) while also printing the order.

4. Encode the String BAI-3B via Huffman and display the encoded string
5. Decode the Encoded string back to the original string