Practice Paper for Lab 6

Heap and Priority Queue

1. Implement **Insert, DeleteMin, BuildHeap, DeleteKey, IncreaseKey** functions for a binary min heap. Create large test case to test your code.

2. Given a character string of English alphabets (a to z), find the encoding of the alphabets present in the string so that length of the string is minimum. For example, If the input string is "**aadbbcadbcbbccaadaa**", the encoding of alphabets would be **a = 0, b = 10, c = 110, d = 111**. (Hint: Learn Huffman encoding from TLA book. This needs Priority queue and tree)

3. Practice the Problem 1 and Problem 2 of Lab 5.

TLA: A. M. Tannenbaum, Y Langsam and M J Augenstein, Data Structures Using C, Prentice Hall India, 1996.