Assignment 4

Indian Institute of Technology, Roorkee
Programming Lab (CS-504)

Autumn Semester

Problem Statement 1

What is meant by Priority Queue? Give general and computer oriented examples.

Problem Statement 2

Write insertion and deletion operations in queues using circular linked list with header node

Problem Statement 3

Write the following operations in doubly linked list.
(ii) addToHead(int)
(iii) addToTail(int)
(iv) deleteFromHead()
(v) deleteFromTail()
(vi) deleteNode(int)
(vii) addNode(int)
(viii) isInList(int)
(ix) printForward()
(x) printBackward()

Problem Statement 4

Write a C++ or JAVA function pop() and pop_bottom() for the stack.

Problem Statement 5

Implement Radix Sort using Linked List.

Problem Statement 6

Give examples for lossy and lossless compression

Problem Statement 7

Suppose you wish to sort two thousand 32-bit keys. You have decided to use radix sort for this and want to decide how many bits each radix sort digit. Which is the best among having 1 bit per radix sort digit, 4 bits per radix sort digit, 8 bits per radix sort digit or 16 bits per radix sort digit?