

1. Given a linked list of N nodes where nodes can contain values 0s, 1s, and 2s only. The task is to segregate 0s, 1s, and 2s linked list such that all zeros segregate to head side, 2s at the end of the linked list, and 1s in the mid of 0s and 2s.

**Input**

N=8, Values=[1,2,2,1,2,0,2,2]

**Output:**

0 1 1 2 2 2 2 2

2. Given two strings, one is a text string and other is a pattern string. The task is to print the indexes of all the occurrences of pattern string in the text string. For printing, Starting Index of a string should be taken as 1(Using RABIN-KARP ALGORITHM)

**Input:**

S = "batmanandbinarebat"      pat = "bat"

**Output:**

1 18

3. Given an array of integers, sort the array (in descending order) according to count of set bits in binary representation of array elements.  
Note: For integers having same number of set bits in their binary representation, sort according to their position in the original array i.e., a stable sort.

**Input:**

Arr = [5,2,3,9,4,6,7,15,32]

**Output:**

15 7 5 3 9 6 2 4 32

4. Given a string S. The task is to print all unique permutations of the given string in lexicographically sorted order.
5. Given a weighted directed graph with n nodes and m edges. Nodes are labeled from 0 to n-1, the task is to check if it contains a negative weight cycle or not.

Note: edges[i] is defined as u, v and weight.