

## Level 1: Basic

### VECTOR

**01.**Write a C++ program that returns the elements in a vector that are strictly smaller than their adjacent left and right neighbours. First it take input of number of element then a vector.

Sample Input	Sample Output
7 1 2 5 0 3 1 7	0 1

**02.**Write a C++ program that returns the sum of that elements right side values.First it take input of number of element then a vector.

Sample Input	Sample Output
6 1 2 5 1 3 1	12 10 5 4 1 0

**03.**Write a c++ program where it takes q query and is query have some input x

- For input x==1 it take another value val1 as input, you need to push a value at 2nd index of vector. If vector is empty push it at first index.
- For input x==2 it take another value val2 as input, you need to push a value at 2nd index from last of vector. If vector is empty push it at first index from last.

Sample Input	Sample Output
5 1 3 1 4 1 5 2 1 2 8	3 5 1 8 4

**04.** Write a program to implement a stack and accept some numeric values. Find  $k^{\text{th}}$  element of the stack.

Sample Input	Sample Output
5 20 10 50 40 70 2	10

Note: Here  $k = 2$ , 2nd Value is 10

**05.** Write a c++ program to find every values Right side max value. Return a vector. First, it take input of number of element then a vector.

Sample Input	Sample Output
6 1 2 5 1 2 1	5 5 2 2 1 0

**06.** Write a program that accepts a string and reverse it using a stack.

Sample Input	Sample Output
phitron	nortihp

**07.** Write a program to delete the  $n^{\text{th}}$  element of a queue.

Sample Input	Sample Output
5 10 20 30 40 50 2	10 30 40 50

## Level 2: Practice Problem on Linked list

-(All problems are a little bit harder than the module's problems. Don't try to solve all the problems. Try to solve as much as you can.)

1. [Merge-two-sorted-lists](#) [Easy]
2. [Remove-duplicates-from-sorted-list-ii](#) [Medium]
3. [Odd-even-linked-list](#) [Medium]
4. [Design-linked-list](#) [Medium]
5. [Delete-the-middle-node-of-a-linked-list](#) [Medium]
6. Write a function named `move_tail()` which will move the tail of a singly linked list to the first position of the list.  
For example: If the list looks like this,  
List: 2 -> 4 -> 1 -> 10 -> 5  
After the operation, the list will look like this,  
List: 5 -> 2 -> 4 -> 1 -> 10
7. [Circularly-linked](#) [Medium]
8. [Insertion-in-a-singly-linked-list](#) [Easy]

## Level 3-Contest(Advance Problem):

<https://vjudge.net/contest/640490>

Password: mypractice

How to use vjudge?

Instruction video:

[https://drive.google.com/file/d/1uJpFUKhFufJYw4DPzcn\\_nKr8S\\_o3Z3Pk/view?usp=sharing](https://drive.google.com/file/d/1uJpFUKhFufJYw4DPzcn_nKr8S_o3Z3Pk/view?usp=sharing)

## **Instructions for Participating in the Contest on Vjudge**

### **1. Register on Vjudge:**

- Go to the [Vjudge website](#).
- Click on the "Register" button.
- Fill in the required details and complete the registration process.

### **2. Login to Vjudge:**

- After registering, log in to your Vjudge account using your credentials.

### **3. Access the Contest:**

- Click on the contest link provided to you (ensure you are logged in).

### **4. Login to the Contest:**

- When prompted, enter the contest password provided to you.

### **5. Start Solving Problems:**

- Once logged in, you will see the list of problems in the contest.
- Start solving the problems by clicking on each problem and submitting your solutions.