https://course.acciojob.com/idle?question=e33091af-154f-43a1-8ee3-2d1a68f06636

- EASY
- Max Score: 30 Points
-

Odd Even Linked List

You are given a linked List consisting of N nodes.

Your task is to rearrange the linked list in such a way that all odd position nodes are together and before all even positions nodes.

Input Format

The first line contains the number of test cases.

For each test case: You are given a head pointer for the linked list.

Output Format

For each test case print an array in a new line, denoting the values of the changed Linked List.

Example 1

Input

```
1
4
1 2 3 4
```

Output

```
1 3 2 4
```

Explanation:

The Initial Linked List looks like:

```
1 -> 2 -> 3 -> 4
```

odd-positioned elements are brought together before all even-positioned elements

The Linked List after the operation looks like this:

```
1 -> 3 -> 2 -> 4
```

Example 2

Input

```
1
4
1 3 5 2
```

Output

```
1 5 3 2
```

Explanation

The odd position elements are brought together.

Constraints

1 <= T <= 10

1 <= N <= 10^4

1 <= L[i] <= 10^5

Topic Tags

- **Linked lists**

My code

```
// n java
import java.util.*;
class Main {
	Node head;
	Node temp;

	class Node {
		int data;
		Node next;
		Node(int d)
		{
			data = d;
			next = null;
		}
	}

	public void oddEvenList(Node head) {
		//Write code here
	Node h=head;
	while(h!=null)
	   {
		System.out.print(h.data+" ");
		if(h.next==null ||h.next.next==null)
		   break;
		h=h.next.next;
	   }
	h=head.next;
```

```
while(h!=null)
    {
        System.out.print(h.data+" ");
        if(h.next==null ||h.next.next==null)
            break;
        h=h.next.next;
    }
 System.out.print("\n");
}

public void push(int new_data)
{
        if(head == null){

                head = new Node(new_data);

                temp =head;

                return ;
        }
        else{
                Node new_node = new Node(new_data);

                temp.next = new_node;

                temp=temp.next;

                return;
        }
```

```
    }

    public static void main(String args[])
    {
        Scanner sc =new Scanner(System.in);
        Main ob = new Main();
        int t=0;
        t = sc.nextInt();
        while(t-->0){
            ob.head=null;
            int n=0;
            n=sc.nextInt();
            int tn =n;
            while(tn-->0){
                int x=0;
                x = sc.nextInt();
                ob.push(x);
            }
       ob.oddEvenList(ob.head);
        }
        sc.close();
        return;
    }
}
```