

# Rajalakshmi Engineering College

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## NeoColab\_REC\_CS23231\_DATA STRUCTURES

### REC\_DS using C\_Week 1\_COD\_Question 6

Attempt : 1  
Total Mark : 10  
Marks Obtained : 10

#### Section 1 : Coding

##### 1. Problem Statement

John is tasked with creating a program to manage student roll numbers using a singly linked list.

Write a program for John that accepts students' roll numbers, inserts them at the end of the linked list, and displays the numbers.

##### ***Input Format***

The first line of input consists of an integer N, representing the number of students.

The second line consists of N space-separated integers, representing the roll numbers of students.

##### ***Output Format***

The output prints the space-separated integers singly linked list, after inserting the roll numbers of students at the end.

Refer to the sample output for formatting specifications.

### **Sample Test Case**

Input: 5

23 85 47 62 31

Output: 23 85 47 62 31

### **Answer**

```
#include<stdio.h>
#include<stdlib.h>
```

```
struct node{
    int data;
    struct node* next;
}*head=NULL,*tail=NULL;
```

```
void insert(int);
void display();
```

```
int main()
```

```
{
    int n;
    scanf("%d",&n);
    for(int i=1;i<=n;i++)
    {
        int roll;
        scanf("%d",&roll);
        insert(roll);
    }
    display();
}
```

```
void insert(int roll)
```

```
{
    struct node* New=(struct node*)malloc(sizeof(struct node));
    New->data=roll;
    if(head==NULL)
```

```
{
    head=New;
    tail=New;
}
else{
    tail->next=New;
    tail=New;
}
}
void display()
{
    struct node* temp=head;
    while(temp!=NULL)
    {
        printf("%d ",temp->data);
        temp=temp->next;
    }
}
```

**Status :** Correct

**Marks :** 10/10