

# 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**

```
// You are using GCC
#include<stdio.h>
#include<stdlib.h>
typedef struct student{
    int roll;
    struct student* next;
}node;

void insert(node** head,int rollno){
    node* newnode=(node*)malloc(sizeof(node));
    newnode->roll=rollno;
    newnode->next=NULL;
    if(*head==NULL){
        *head=newnode;
        return;
    }
    node* temp=*head;
    while(temp->next!=NULL){
        temp=temp->next;
    }
    temp->next=newnode;
}

void tranverse(node* head){
    node* temp=head;
    while(temp!=NULL){
        printf("%d ",temp->roll);
        temp=temp->next;
    }
}
```

```
}  
int main(){  
    int n;  
    int rollno;  
    node* head=NULL;  
    scanf("%d",&n);  
    for(int i=0; i<n; i++){  
        scanf("%d",&rollno);  
        insert(&head,rollno);  
    }  
    tranverse(head);  
}
```

**Status :** Correct

**Marks : 10/10**