

# 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;
};
typedef struct node Node;
void insert(Node **head,int value){
    Node *newnode=(Node *)malloc(sizeof(Node));
    newnode->data=value;
    newnode->next=NULL;
    if(*head==NULL){
        *head=newnode;
    }else{
        Node *pos=*head;
        while(pos->next!=NULL){
            pos=pos->next;
        }
        pos->next=newnode;
    }
}
void display(Node *head){
    Node *position=head;
    while(position!=NULL){
        printf("%d ",position->data);
        position=position->next;
    }
    printf("\n");
}
```

```
}  
int main(){  
    Node *head=NULL;  
    int n,value;  
    scanf("%d",&n);  
    for(int i=0;i<n;i++){  
        scanf("%d",&value);  
        insert(&head,value);  
    }  
    display(head);  
    return 0;  
}
```

**Status :** Correct

**Marks : 10/10**