

# 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;
};
void insertAtEnd(struct Node**head,int data){
    struct Node*newNode = (struct Node*)malloc(sizeof(struct Node));
    newNode->data = data;
    newNode->next = NULL;
    if(*head == NULL){
        *head = newNode;
        return;
    }
    struct Node*temp = *head;
    while(temp->next != NULL){
        temp = temp->next;
    }
    temp->next = newNode;
}
void display(struct Node*head){
    struct Node*temp = head;
    while(temp != NULL){
        printf("%d ",temp->data);
        temp = temp->next;
    }
    printf("\n");
}
```

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

**Status :** Correct

**Marks :** 10/10