

# 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>
struct node{
    int data;
    struct node*next;
};
struct node*memorycreat(int data){
    struct node*newnode;
    newnode=(struct node*)malloc(sizeof(struct node));
    newnode->data=data;
    newnode->next=NULL;
    return newnode;
}
void insert(struct node**head,int data){
    struct node*newnode=memorycreat(data);
    if(*head==NULL){
        *head=newnode;
        return;
    }
    else{
        struct node*tem;
        tem=*head;
        while(tem->next!=NULL){
            tem=tem->next;
        }
        tem->next=newnode;
    }
}
```

```
}  
void print(struct node*head){  
    struct node*temp;  
    temp=head;  
    while(temp !=NULL){  
  
        printf("%d ",temp->data);  
        temp=temp->next;  
    }  
}  
int main(){  
    struct node*head=NULL;  
    int n,data;  
    scanf("%d",&n);  
    for(int i=0;i<n;i++){  
        scanf("%d",&data);  
        insert(&head,data);  
    }  
    print(head);  
}
```

**Status :** Correct

**Marks :** 10/10