

# 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 x)
{
    Node *newnode;
    newnode=(Node *)malloc(sizeof(Node));
    newnode->data=x;
    newnode->next=NULL;
    if(*head==NULL)
    {
        *head=newnode;
        return;
    }
    node *current=*head;
    while(current->next!=NULL)
    {
        current=current->next;
    }
    current->next=newnode;
    return;
}
void display(Node *head)
{
```

```
Node *current=head;
while(current!=NULL)
{
    printf("%d ",current->data);
    current=current->next;
}
return;
}
```

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

**Status :** Correct

**Marks :** 10/10