

# 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;  
};
```

```
void append(struct Node **head, int value){  
    struct Node *nd=(struct Node*)malloc(sizeof(struct Node));  
    if (nd!=NULL){  
        nd->data=value;  
        if (*head==NULL){  
            *head=nd;  
            nd->next=NULL;  
            return;  
        }  
        struct Node *temp=*head;  
        while(temp->next!=NULL){  
            temp=temp->next;  
        }  
        temp->next=nd;  
        nd->next=NULL;  
    }  
}
```

```
void display(struct Node *head){
```

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

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

**Status :** Correct

**Marks :** 10/10