

# 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>
```

```
typedef struct student {  
    int roll;  
    struct student* next;  
}Node;
```

```
Node* newnode(int rollno){  
    Node* data = (Node*) malloc(sizeof(Node));  
    data->roll = rollno;  
    data->next = NULL;  
    return data;  
}
```

```
void traverse(Node* head){  
    while(head != NULL){  
        printf("%d ",head->roll);  
        head = head->next;  
    }  
}
```

```
int main(){  
    int n,rollno;  
    scanf("%d", &n);  
    scanf("%d", &rollno);  
    Node* head = newnode(rollno);
```

```
Node* temp = head;
while(--n){
    scanf("%d", &rollno);
    temp->next = newnode(rollno);
    temp = temp->next;
}
```

```
traverse(head);
}
```

**Status :** Correct

**Marks : 10/10**