

# 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 roll)
```

```
{
```

```
    Node* data=(Node*)malloc(sizeof(Node));
```

```
    data->roll=roll;
```

```
    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 %d",&n,&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**