

# Rajalakshmi Engineering College

Name: Jayasree D  
Email: 241801100@rajalakshmi.edu.in  
Roll no:  
Phone: 9025821157  
Branch: REC  
Department: I AI & DS FB  
Batch: 2028  
Degree: B.E - AI & DS

Scan to verify results



## NeoColab\_REC\_CS23231\_DATA STRUCTURES

### REC\_DS using C\_Week 1\_COD\_Question 4

Attempt : 1  
Total Mark : 10  
Marks Obtained : 10

#### Section 1 : Coding

##### 1. Problem Statement

As part of a programming assignment in a data structures course, students are required to create a program to construct a singly linked list by inserting elements at the beginning.

You are an evaluator of the course and guide the students to complete the task.

##### ***Input Format***

The first line of input consists of an integer N, which is the number of elements.

The second line consists of N space-separated integers.

##### ***Output Format***

The output prints the singly linked list elements, after inserting them at the beginning.

Refer to the sample output for formatting specifications.

### ***Sample Test Case***

Input: 5

78 89 34 51 67

Output: 67 51 34 89 78

### ***Answer***

```
#include <stdio.h>
```

```
#include <stdlib.h>
```

```
struct Node {  
    int data;  
    struct Node* next;  
};
```

```
struct Node *head=NULL,*newnode,*ptr;  
void insertAtFront(struct Node **head,int a)  
{newnode=(struct Node*)malloc(sizeof(struct Node));  
newnode->data=a;  
newnode->next=NULL;  
newnode->next=*head;  
*head=newnode;
```

```
}  
void printList(struct Node*head)  
{ptr=head;  
    while(ptr!=NULL)  
        {printf("%d ",ptr->data);  
        ptr=ptr->next;}  
}
```

```
int main(){  
    struct Node* head = NULL;  
  
    int n;
```

```
scanf("%d", &n);

for (int i = 0; i < n; i++) {
    int activity;
    scanf("%d", &activity);
    insertAtFront(&head, activity);
}

printList(head);
struct Node* current = head;
while (current != NULL) {
    struct Node* temp = current;
    current = current->next;
    free(temp);
}

return 0;
}
```

**Status :** Correct

**Marks :** 10/10