## Rajalakshmi Engineering College

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Branch: REC

Department: I AI & DS FB

Batch: 2028

Degree: B.E - AI & DS



## 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;
    };
    // You are using GCC
    void insertAtFront(struct Node** head,int value){
      struct Node* nn=(struct Node*)malloc(sizeof(struct Node));
      nn->data=value:
      nn->next=*head;
      *head=nn;
   void printList(struct Node* head){
      struct Node* temp=head;
      while(temp!=NULL){
        printf("%d ",temp->data);
        temp=temp->next;
      }
      printf("\n");
    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;
}
```

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Status: Correct

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24,180,1,2,1

Marks: 10/10

24,180,1,2,1

24,801,21

24,801,21

24,801,27