# Rajalakshmi Engineering College

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Branch: REC

Department: I AI & DS AF

Batch: 2028

Degree: B.E - AI & DS



### 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
    #include<stdio.h>
#include<stdlib.h>
    struct Node{
      int data;
      struct Node* next;
    };
    struct Node* insert(struct Node* head, int value){
      struct Node* newNode = (struct Node*)malloc(sizeof(struct Node));
      newNode->data = value;
      newNode->next = NULL;
      if(head==NULL){
        return newNode;
      struct Node* temp = head;
      while(temp->next!=NULL){
        temp=temp->next;
      temp->next = newNode;
      return head:
    }
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    void printList(struct Node* head){
while(temp!=NULL){
printf("%d "*
      struct Node* temp = head;
        printf("%d ",temp->data);
```

```
temp = temp->next;
                                                                           24,80,314
                                                  24,801314
    void freeList(struct Node* head){
       struct Node* temp;
       while(head!=NULL){
         temp = head;
         head = head->next;
         free(temp);
   }
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    int main(){
naii
int n;
scr
       scanf("%d",&n);
       struct Node* head =NULL;
       for(int i=0;i< n;i++){
         int v;
         scanf("%d",&v);
         head = insert(head,v);
       }
       printList(head);
                                                                    Marks: 10/10
    Status: Correct
241801
```

24,80,314

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24,180,1314

24,80,314