Rajalakshmi Engineering College

Name: Thavaneshwaran s
Email: 241501231@rajalakshmi.edu.in
Roll no: 241501231
Phone: 7824883366
Branch: REC
Department: I AI & ML FC
Batch: 2028
Degree: B.E - AI & ML

Scan to verify results

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>

struct Node {
    int roll;
        struct Node* next;
};


void insertAtEnd(struct Node** headRef, int value) {
    struct Node* newNode = (struct Node*)malloc(sizeof(struct Node));
        newNode->roll = value;
            newNode->next = NULL;

            if (*headRef == NULL) {
                    *headRef = newNode;
            } else {
                    struct Node* temp = *headRef;
                        while (temp->next != NULL) {
                                temp = temp->next;
                        }
                            temp->next = newNode;
            }
}

void printList(struct Node* head) {
```

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

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

        scanf("%d", &n);

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

            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**