Rajalakshmi Engineering College

Name: Kavyasri M
Email: 240701248@rajalakshmi.edu.in
Roll no: 240701248
Phone: 6383586337
Branch: REC
Department: I CSE AH
Batch: 2028
Degree: B.E - CSE

Scan to verify results

NeoColab_REC_CS23231_DATA STRUCTURES

REC_DS using C_Week 2_COD_Question 4

Attempt : 1
Total Mark : 10
Marks Obtained : 10

Section 1 : Coding

1. Problem Statement

Ravi is developing a student registration system for a college. To efficiently store and manage the student IDs, he decides to implement a doubly linked list where each node represents a student's ID.

In this system, each student's ID is stored sequentially, and the system needs to display all registered student IDs in the order they were entered.

Implement a program that creates a doubly linked list, inserts student IDs, and displays them in the same order.

Input Format

The first line contains an integer N the number of student IDs.

The second line contains N space-separated integers representing the student IDs.

Output Format

The output should display the single line containing N space-separated integers representing the student IDs stored in the doubly linked list.

Refer to the sample output for formatting specifications.

Sample Test Case

Input: 5
10 20 30 40 50
Output: 10 20 30 40 50

Answer

```
// You are using GCC
#include<stdio.h>
#include<stdlib.h>
struct node{
   int data;
   struct node *next,*prev;
}*head=NULL;
typedef struct node NODE;
void insert(int x){
   NODE *nn=(NODE *)malloc(sizeof(NODE));
   nn->data=x;
   nn->next=NULL;
   nn->prev=NULL;
   if(head==NULL){
      head=nn;
   }
   else{
      NODE *temp=head;
      while(temp->next!=NULL){
         temp=temp->next;
      }
      temp->next=nn;
      nn->prev=temp;
   }
```

```
}
void dis()
{
    NODE *temp=head;
    while(temp!=NULL){
        printf("%d ",temp->data);
        temp=temp->next;
    }

}
int main(){
    int n,ele;
    scanf("%d",&n);
    for(int i=0;i<n;i++){
        scanf("%d",&ele);
        insert(ele);
    }dis();
}
```

Status : Correct **Marks : 10/10**