Rajalakshmi Engineering College

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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

```
#include<stdio.h>
#include<stdlib.h>
struct node{
   int data;
   struct node *next,*pre;
}*head=NULL;

void insert(int d){
   struct node* nn=(struct node *)malloc(sizeof(struct node));
   nn->data=d;
   if(!head){
      head=nn;
      return;
   }
   struct node* temp=head;
   while(temp->next)
      temp=temp->next;
   temp->next=nn;
   nn->pre=temp;
}

int main(){
   int n,d;
   scanf("%d",&n);
```

```
    while(n){
        scanf("%d",&d);
        insert(d);
        n--;
    }
    while(head){
        printf("%d ",head->data);
        head=head->next;
    }
}
```

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