LAB 3

Write a program to implement Circular Link List. Also display its output.

```
#include <iostream>
using namespace std;
struct Node
{
    int data;
    struct Node *next;
};
struct Node *head = NULL;
struct Node *ptr = head;

void insert(int new_data)
{
    struct Node *new_node = (struct Node *)malloc(sizeof(struct Node
    new_node->data = new_data;
    new_node->next = head;
    head = new_node;
}
void displayNode()
{
    cout << ptr->data << " ";
    ptr = ptr->next;
    if (ptr->next == NULL)
        ptr->next = head;
}
void insertValues(int n)
{
    int num;
    cout << "Enter the elements of the link list: " << endl;
    for (int i = 0; i < n; i++)
    {
        cin >> num;
        insert(num);
    }
}
int main()
{
    int n;
    cout << "Enter the number of elements you want to enter: " << en
    cin >> n;
    insertValues(n);
    cout << "Enter the number of elements to be displayed: " << endl
    int num;
```

```
43      cin >> num;
44      ptr = head;
45      while (num > 0)
46      {
47          num--;
48          displayNode();
49      }
50      cout << "\n";
51      return 0;
52  }
```

```
arv@arv:~/Data Structures$ ./"CircularLinkList"
Enter the number of elements you want to enter:
5
Enter the elements of the link list:
5
4
3
2
1
Enter the number of elements to be displayed:
10
1 2 3 4 5 1 2 3 4 5
arv@arv:~/Data Structures$
```