Reg. No. : 12212256 Name: Satyam Mishra Roll No. : A19

Academic Tasks (22232)

Academic Task Number: 2

Course code: CAP770 **Course title: Advanced Data Structures**

Date of allotment: 22-Feburary-2023 **Date of submission: 22-Feburary 2023**

Max Marks: 50 **Section: D2217/D2221- G1**

Question Number	Question Statement	Course Outcome	Bloom's level	Marks per Question
Q2 (EVEN)	Implement the code to delete last node of circular list.	CO1,CO2	L3: Apply	25

Code

```
#include <iostream>
using namespace std;
struct Node {
   int data;
   Node* next;
};
Node* deleteLast(Node* head) {
   if (head == NULL) {
      return NULL;
   }
   else if (head->next == head) {
      delete head;
      return NULL;
```

```
    }
    else {
        Node* temp = head;
        while (temp->next->next != head) {
            temp = temp->next;
        }
        delete temp->next;
        temp->next = head;
        return head;
    }
}
void printList(Node* head) {
    if (head == NULL) {
        cout << "List is empty." << endl;
    }
    else {
        Node* temp = head;
        do {
            cout << temp->data << " ";
            temp = temp->next;
        } while (temp != head);
        cout << endl;
    }
}

int main() {
    Node* head = new Node();
    Node* second = new Node();
    Node* third = new Node();
    Node* fourth = new Node();

    head->data = 1;
    head->next = second;

    second->data = 2;
    second->next = third;

    third->data = 3;
    third->next = fourth;
```

```
    fourth->data = 4;
    fourth->next = head;

    cout << "Before deletion: ";
    printList(head);

    head = deleteLast(head);

    cout << "After deletion: ";
    printList(head);

    return 0;
}
```

Output of the code