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**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**

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| **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);

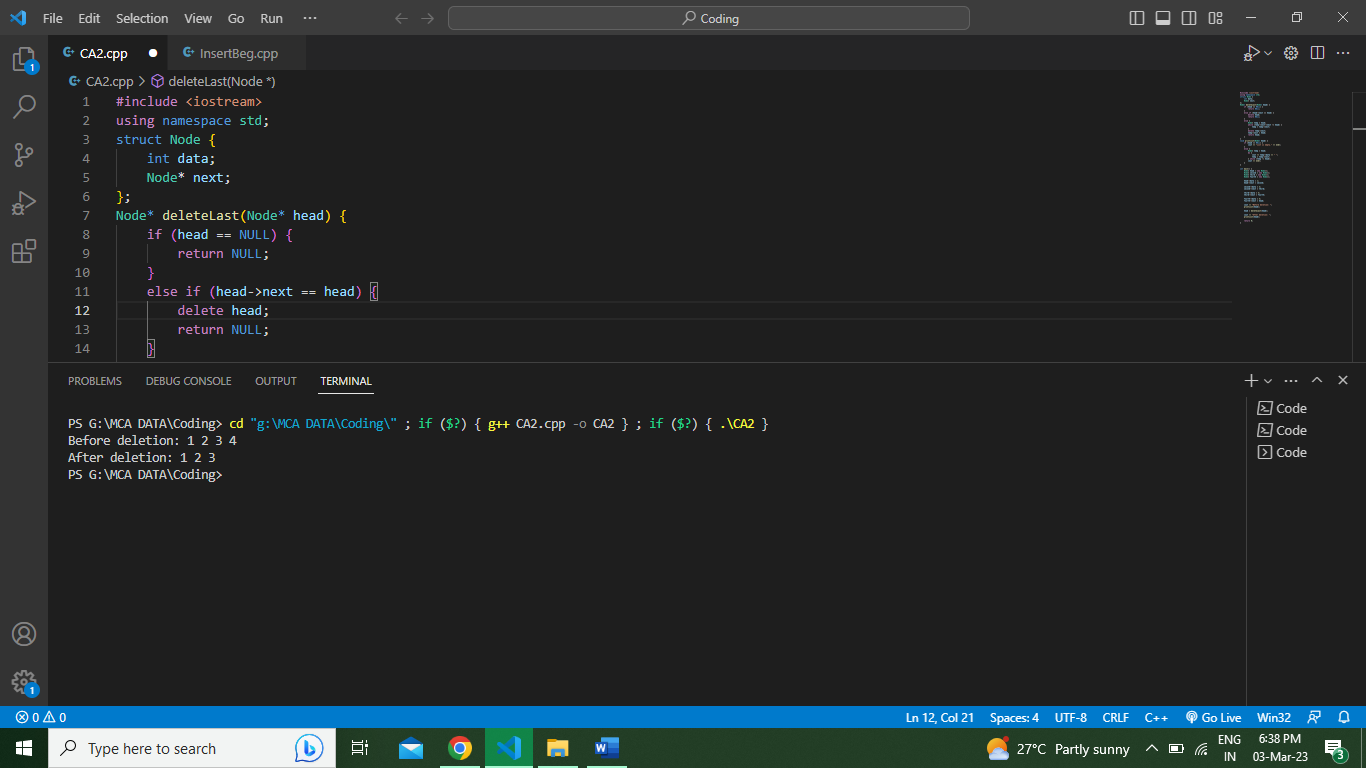
cout << "After deletion: ";

printList(head);

return 0;

}

**Output of the code**

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