

Minor : Perform Deletion at an Index on an LinkedList

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#include <iostream>

using namespace std;

struct node {
    int data;
    node* next;
};

void insert(node **start, int data) {
    node* nnode = new node;
    nnode->data = data;
    nnode->next = *start;
    *start = nnode;
}

node* deleteN(node* start, int index) {
    if (start == NULL) {
        cout << "LinkedList is empty\n";
        return start;
    }

    if (index == 1) {
        node* temp = start;
        start = start->next;
        delete temp;
        return start;
    }

    node* current = start;
    node* previous = NULL;

    for (int i = 1; i < index && current != NULL; i++) {
        previous = current;
        current = current->next;
    }

    if (current == NULL) {
```

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        cout << "invalid index\n";

        return start;
    }

    previous->next = current->next;

    delete current;

    return start;
}

void print(node* start) {
    node* temp = start;
    while (temp != NULL) {
        cout << " "<<temp->data;

        temp = temp->next;
    }

    cout << "\n";
}

int main() {
    node* start = NULL;

    int n, data, index;

    cout << "Enter the number of nodes: ";

    cin >> n;

    cout << "Enter the nodes: ";

    for (int i = 0; i < n; i++) {
        cin >> data;

        insert(&start, data);
    }

    cout << "Enter the index to delete a node: ";

    cin >> index;

    start = deleteN(start, index);

    cout << "After deleting of node at index " << index << " ll is: ";

    print(start);

    return 0;
}

```

```
Enter the number of nodes: 5
Enter the nodes: 1
2
3
4
5
Enter the index to delete a node: 3
After deleting of node at index 3 ll is: 5 4 2 1
}
```