```
1 #include <iostream>
 2
 3 class Node {
 4 public:
 5
        int data;
 6
        Node* next;
 7
        Node(int value) : data(value), next(nullptr) {}
 8
 9 };
10
11 class SinglyLinkedList {
12 private:
13
       Node* head;
14
15 public:
16
       SinglyLinkedList() : head(nullptr) {}
17
18
        void insertAtBeginning(int value) {
19
            Node* newNode = new Node(value);
20
            newNode->next = head;
            head = newNode;
21
22
       }
23
       void insertAtEnd(int value) {
24
            Node* newNode = new Node(value);
25
26
            if (head == nullptr) {
                head = newNode;
27
            } else {
29
                Node* current = head;
30
                while (current->next != nullptr) {
31
                    current = current->next;
32
                }
33
                current->next = newNode;
34
            }
35
        }
36
37
        void deleteNode(int value) {
38
            Node* current = head;
39
            Node* prev = nullptr;
40
41
            while (current != nullptr && current->data != value) {
42
                prev = current;
43
                current = current->next;
44
            }
45
            if (current != nullptr) {
46
47
                if (prev != nullptr) {
48
                    prev->next = current->next;
49
                } else {
```

```
...ive\Desktop\DSA Lab\Linked Lists\Singlelinkedlist.cpp
```

```
2
```

```
head = current->next;
50
51
52
                delete current;
53
            }
54
        }
55
        void display() {
56
            Node* current = head;
57
58
            while (current != nullptr) {
59
                std::cout << current->data << " ";</pre>
                current = current->next;
60
61
            }
62
            std::cout << std::endl;</pre>
        }
63
64 };
65
66 int main() {
        SinglyLinkedList sll;
67
68
        sll.insertAtEnd(10);
69
70
        sll.insertAtEnd(20);
71
        sll.insertAtEnd(30);
72
        std::cout << "Singly Linked List: ";</pre>
73
74
        sll.display();
75
        sll.insertAtBeginning(20);
76
77
        std::cout << "Singly Linked List after inserting at the beginning: ";</pre>
        sll.display();
78
79
80
        sll.deleteNode(10);
        std::cout << "Singly Linked List after deleting : ";</pre>
81
82
        sll.display();
83
84
        return 0;
85 }
86
```