

```
1 #include <stdio.h>
2 #include <stdlib.h>
3
4 struct Node {
5     int data;
6     struct Node *next;
7 };
8
9 void deleteAtPosition(struct Node **head, int position) {
10    if (*head == NULL) {
11        printf("List is empty\n");
12        return;
13    }
14
15    struct Node *temp = *head;
16
17    if (position == 1) {
18        *head = temp->next;
19        free(temp);
20        return;
21    }
22
23    for (int i = 1; temp != NULL && i < position - 1; i++) {
24        temp = temp->next;
25    }
26
27    if (temp == NULL || temp->next == NULL) {
28        printf("Invalid position\n");
29        return;
30    }
31
32    struct Node *nodeToDelete = temp->next;
33    temp->next = nodeToDelete->next;
34    free(nodeToDelete);
35 }
36
37 void display(struct Node *head) {
38    struct Node *temp = head;
39
40    while (temp != NULL) {
41        printf("%d -> ", temp->data);
42        temp = temp->next;
43    }
44    printf("NULL\n");
45 }
46
47 int main() {
48    struct Node *head, *first, *second, *third;
49
50    head = (struct Node*)malloc(sizeof(struct Node));
51    first = (struct Node*)malloc(sizeof(struct Node));
52    second = (struct Node*)malloc(sizeof(struct Node));
53    third = (struct Node*)malloc(sizeof(struct Node));
54
55    head->data = 10;
56    head->next = first;
57
58    first->data = 20;
59    first->next = second;
60
61    second->data = 30;
62    second->next = third;
63
64    third->data = 40;
65    third->next = NULL;
66
67    printf("Original List:\n");
68    display(head);
69
70    int position = 3;
71    deleteAtPosition(&head, position);
72
73    printf("After deleting node at position %d:\n", position);
74    display(head);
75
76    return 0;
77 }
```



Original List:

10 -> 20 -> 30 -> 40 -> NULL

After deleting node at position 3

10 -> 20 -> 40 -> NULL