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1 #include <stdio.h>
2 #define MAX 100
3 struct Node {
4     int data;
5     struct Node* next;
6 };
7 struct Node pool[MAX];
8 int poolIndex = 0;
9 struct Node* createNode(int data) {
10     if (poolIndex >= MAX) return NULL;
11     pool[poolIndex].data = data;
12     pool[poolIndex].next = NULL;
13     return &pool[poolIndex++];
14 }
15 struct Node* createList(int arr[], int size) {
16     if (size == 0) return NULL;
17     struct Node* head = createNode(arr[0]);
18     struct Node* curr = head;
19     for (int i = 1; i < size; i++) {
20         curr->next = createNode(arr[i]);
21         curr = curr->next;
22     }
23     return head;
24 }
```

```
25 void printList(struct Node* head) {
26     printf("[");
27     while (head) {
28         printf("%d", head->data);
29         if (head->next) printf(",");
30         head = head->next;
31     }
32     printf("]\n");
33 }
34 struct Node* reverseBetween(struct Node* head, int left, int right) {
35     if (!head || left == right) return head;
36     struct Node dummy;
37     dummy.next = head;
38     struct Node* prev = &dummy;
39     for (int i = 1; i < left; i++) {
40         if (prev == NULL) return head;
41         prev = prev->next;
42     }
43     struct Node* curr = prev->next;
44     struct Node* next = NULL;
45     for (int i = 0; i < right - left; i++) {
46         next = curr->next;
47         curr->next = next->next;
48         next->next = prev->next;
49         prev->next = next;
50     }
51     return dummy.next;
52 }
```

```
53 int main() {
54     int arr1[] = {1, 2, 3, 4, 5};
55     struct Node* head1 = createList(arr1, 5);
56     head1 = reverseBetween(head1, 2, 4);
57     printf("Output: ");
58     printList(head1);
59     int arr2[] = {5};
60     struct Node* head2 = createList(arr2, 1);
61     head2 = reverseBetween(head2, 1, 1);
62     printf("Output: ");
63     printList(head2);
64     int arr3[] = {10, 20, 30, 40, 50, 60, 70};
65     struct Node* head3 = createList(arr3, 7);
66     head3 = reverseBetween(head3, 3, 6);
67     printf("Output: ");
68     printList(head3);
69     return 0;
70 }
```

Output: [1,4,3,2,5]

Output: [5]

Output: [10,20,60,50,40,30,70]