

```

1: /*-----Insert after a given node-----*/
2:
3: #include<iostream>
4: using namespace std;
5:
6: struct node
7: {
8:     int data;
9:     node *next;
10: };
11:
12: class linklist
13: {
14:     private:
15:         node* head;
16:         node* tail;
17:     public:
18:         linklist()
19:         {
20:             head = NULL;
21:             tail = NULL;
22:         }
23:
24:         void addBack(int n)
25:         {
26:             node* temp = new node;
27:             temp -> data = n;
28:             temp -> next = NULL;
29:             if(tail == NULL)
30:             {
31:                 head = tail = temp;
32:             }
33:             else
34:             {
35:                 tail -> next = temp;
36:                 tail = temp;
37:             }
38:         }
39:
40:         void insertAfter(int n, int newData)
41:         {
42:             node *ptr = head;
43:             int index = 1;
44:             while(ptr != NULL && index < n)
45:             {
46:                 ptr = ptr -> next;

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47:         index++;
48:     }
49:
50:     if(ptr == NULL)
51:     {
52:         cout << "The list have less than " << n << " elements." << endl;
53:     }
54:     else
55:     {
56:         node *newNode = new node;
57:         newNode -> data = newData;
58:         newNode -> next = ptr -> next;
59:         ptr -> next = newNode;
60:     }
61: }
62:
63:
64: void showList()
65: {
66:     node *temp = head;
67:     while(temp != NULL)
68:     {
69:         cout << temp -> data << " ";
70:         temp = temp -> next;
71:     }
72:     cout << endl;
73: }
74: };
75:
76: int main()
77: {
78:     linklist list1;
79:
80:     int n;
81:     cout << "How many elements do you want to add? \n";
82:     cin >> n;
83:
84:     int elt = 0;
85:     cout << "Enter the elements: \n";
86:     for(int i = 0; i < n; i++)
87:     {
88:         cin >> elt;
89:         list1.addBack(elt);
90:     }
91:
92:     cout << "After adding elements complete list is: \n";

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93:     list1.showList();
94:
95:     cout << "After which number of node you want to insert an elements?" << endl;
96:     cin >> n;
97:     cout << "Enter the element you want to insert:\n";
98:     cin >> elt;
99:     list1.insertAfter(n, elt);
100:    cout << "After adding " << elt << ", new list is:\n";
101:    list1.showList();
102:
103:    return 0;
104: }
```