```
 1: /*-----Singly Connected Linklist-----*/
 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 addFront(int n)
25:         {
26:             node *temp = new node;
27:             temp -> data = n;
28:             temp -> next = NULL;
29:             if(head == NULL)
30:             {
31:                 head = tail = temp;
32:             }
33:             else
34:             {
35:                 temp -> next = head;
36:                 head = temp;
37:             }
38:         }
39:
40:         void addBack(int n)
41:         {
42:             node* temp = new node;
43:             temp -> data = n;
44:             temp -> next = NULL;
45:             if(tail == NULL)
46:             {
```

```
47:                 head = tail = temp;
48:             }
49:             else
50:             {
51:                 tail -> next = temp;
52:                 tail = temp;
53:             }
54:         }
55:
56:         void showList()
57:         {
58:             node *temp = new node;
59:             temp = head;
60:             while(temp != NULL)
61:             {
62:                 cout << temp -> data << " ";
63:                 temp = temp -> next;
64:             }
65:             cout << endl;
66:         }
67: };
68:
69: int main()
70: {
71:     linklist list1;
72:
73: //  list1.addFront(1);
74: //  list1.addFront(2);
75: //  list1.addFront(3);
76:
77:     int n;
78:     cout << "How many elements you want to add in front: \n";
79:     cin >> n;
80:     cout << "Enter the elements in front: \n";
81:     int elt = 0;
82:     for(int i = 0; i < n; i++)
83:     {
84:         cin >> elt;
85:         list1.addFront(elt);
86:     }
87:
88:     cout << "How many elements you want to add in back: \n";
89:     cin >> n;
90:     cout << "Enter the elements in back: \n";
91:     for(int i = 0; i < n; i++)
92:     {
```

```
 93:         cin >> elt;
 94:         list1.addBack(elt);
 95:     }
 96:
 97:     cout << "After adding elements complete list is: \n";
 98:     list1.showList();
 99:
100:     return 0;
101: }
```