

```
1 #include <stdio.h>
2 #include <stdlib.h>
3 #include "linked-list.h"
4
5 /****
6 *
7 * This is a testing program for the simple implementation in linked-list{h,c}.
8 *
9 */
10
11 /**
12 * Print the given list with the given debugging message one line above the
13 * list output.
14 */
15 void print(LinkedList* l, char* msg) {
16     printf("List contents, should be %s\n", msg);
17     printList(l);
18     printf("\n");
19 }
20
21 /**
22 * Allocate a linked list, insert some values in it, and print it out after
23 * each insert.
24 */
25 int main () {
26     LinkedList* l;
27
28     l = newLinkedList();
29     print(l, "empty");
30
31     insert(l, newListNode(0), 0);
32     print(l, "0");
33
34     insert(l, newListNode(1), 1);
35     print(l, "0,1");
36
37     insert(l, newListNode(2), 2);
38     print(l, "0,1,2");
39
40     insert(l, newListNode(3), 3);
41     print(l, "0,1,2,3");
42
43     insert(l, newListNode(-1), 0);
44     print(l, "-1,0,1,2,3");
45
46     insert(l, newListNode(10), 3);
47     print(l, "-1,0,1,10,2,3");
48
49     insert(l, newListNode(100), 6);
50     print(l, "-1,0,1,10,2,3,100");
51
52     insert(l, newListNode(100), l->length+1);
53     print(l, "-1,0,1,10,2,3,100");
54
55     insert(l, newListNode(100), -1);
56     print(l, "-1,0,1,10,2,3,100");
57
58     exit(0);
59 }
60
61
```