

CSI 202 – Computer Science II – Spring 2009

Homework #1 - Linked Lists

In this assignment you will be implementing a linked list. The linked list will be able to add items, remove items, and output the list on the fly. For the purposes of this assignment, you will be adding items to the front of the list. For an example of how your program may operate, refer to the demonstration in class and the attached script. I expect to see at least three functions: `addtofront`, `remove`, and `output`.

As always, be sure to hand in a script of your program. For full credit, the script should show the following (and your program should handle the following):

1. Add at least 10 items to the list
2. Add item to head after the head has been removed
3. Remove an integer not in the list
4. Remove the tail twice
5. Remove the head twice
6. Remove the entire list
7. Output the entire list after each operation

```
sramsey2@sampson:$ g++ -Wall ll.cpp -o lld
sramsey2@sampson:$ ./lld
Please choose a menu item:
(A)dd an integer
(O)utput the list
(R)emove an integer
(Q)uit
Please choose: a
Input an integer:57
(57): Please choose: a
Input an integer:3
(3 57): Please choose: a
Input an integer:11
(11 3 57): Please choose: a
Input an integer:15
(15 11 3 57): Please choose: a
Input an integer:4
```

(4 15 11 3 57): Please choose: a
Input an integer:1
(1 4 15 11 3 57): Please choose: a
Input an integer:13
(13 1 4 15 11 3 57): Please choose: a
Input an integer:-3
(-3 13 1 4 15 11 3 57): Please choose: a
Input an integer:0
(0 -3 13 1 4 15 11 3 57): Please choose: a
Input an integer:101
(101 0 -3 13 1 4 15 11 3 57): Please choose: r
What integer do you want to remove?: 53
Integer: 53 not found!
(101 0 -3 13 1 4 15 11 3 57): Please choose: r
What integer do you want to remove?: 57
(101 0 -3 13 1 4 15 11 3): Please choose: r
What integer do you want to remove?: 3
(101 0 -3 13 1 4 15 11): Please choose: r
What integer do you want to remove?: 101
(0 -3 13 1 4 15 11): Please choose: r
What integer do you want to remove?: 0
(-3 13 1 4 15 11): Please choose: r
What integer do you want to remove?: 13
(-3 1 4 15 11): Please choose: r
What integer do you want to remove?: -3
(1 4 15 11): Please choose: r
What integer do you want to remove?: 1
(4 15 11): Please choose: r
What integer do you want to remove?: 4
(15 11): Please choose: r
What integer do you want to remove?: 15
(11): Please choose: r
What integer do you want to remove?: 11
(): Please choose: r
What integer do you want to remove?: 324
Integer: 324 not found!
(): Please choose: q