Write a program that uses a pointer-based linked

list. You should use the following struct (declared

as a global):

 struct node {

 char name[42];

 struct node \*next;

 };

Note that no other variables can be global.

To populate your linked list open the hw7.data file and

read in the contents. The file format is as follows:

name op\_code

 For example:

 Vlad a

 Cullen a

 Morticia a

 Ophelia a

 Smurf a

 Morticia d

The name will be a string. The op\_code will be a character

('a' or 'd'), where 'a' indicates that you should add this

person to the linked-list, 'd' indicates that you should

delete this person from the linked-list. Note that when

you add a person you must add them in increasing order. I.e.

we are adding them as an insertion sort (no, you cannot presort

the list). This MUST be seperate functions (adding and deleting).

You also need to provide output that proves your program works.

After the last data item has been processed, your program must

display the contents of the linked-list. This MUST be a seperate

function.

Your program must also correctly free all links of the list

on termination. This MUST be a seperate function.