

Map Program Short Description

First line of input: integer n, number of commands.

Commands follow, 1 per line.

All commands are of the form:

command# word

The command numbers are 1, 2, 3 or 4 as follows:

- 1 – add 1 to the frequency of this word
- 2 – subtract 1 from the frequency of this word
- 3 – print out the frequency of this word
- 4 – remove this word from the map

So, we are supposed to read in the operations and process them one at a time. We only output something for command 3.

Our C solution solves this with an array of linked lists. Each word will be stored in one of the linked lists, so hopefully no linked list will be too long. (First three letters have to be the same to be in the same linked list.)

Generally speaking, we immediately narrow down which linked list we need to be in, and then we just need to search for the relevant node. I do this always, and then depending on the command, I do the appropriate action.