

HOMEWORK 4

Write a C program to implement the following requirement:

Input:

The program will read from standard input any text up to 10,000 characters and store each word (a string that does not contain any whitespace with a maximum of 100 characters) into a node of a linked list, using the following struct:

```
struct NODE {  
    char *word;  
    struct NODE *next;  
    struct NODE *prev;  
};
```

Output:

The program will print out 2 things

- On the first line, the original list of words, each word is separated by a single comma “,”.
- On the second line, the list of words **after removing duplicate words**, each word is separated by a single comma “,”.

Note: If there is no word in the input text, the program must print the empty string to stdout.

SAMPLE INPUT 1

hello world this is a single line

SAMPLE OUTPUT 1

hello,world,this,is,a,single,line
hello,world,this,is,a,single,line

SAMPLE INPUT 2

This is the first line
this is the second line line

SAMPLE OUTPUT 2

This,is,the,first,line,this,is,the,second,line
This,is,the,first,line,this,second