

Write a program to look up words in a dictionary. The user will enter a command line that looks as follows.

**lookup red**

This command will cause the following line to be printed.

**red: a color, dark pink**

The lookup must be case-insensitive. That is the following commands must all produce the same result.

**lookup red  
lookup RED  
lookup Red  
lookup rED**  
(and so forth)

Words will come from a dictionary, which is stored in a file named "dict.txt". Before looking up the word, you must read the dictionary into a set of data structures. Each line of the "dict.txt" file will contain one word followed by its definition. The dictionary could be quite large, so a fixed-sized array would not be a suitable structure. The words will be listed in alphabetical order in the dictionary, so you may use binary search if you wish. A standard dictionary is available on my website, or you may use your own. The dictionary format looks as follows. (You *must* use this format if you use your own dictionary.)

**blue a color, the color of the sky  
green a color, the color of grass  
red a color, dark pink**

Each line starts with a word, followed by a space, followed by the definition of the word. The definition may contain spaces. In the dictionary, the words will all be in lower case. If the user forgets to type a word, and enters just the name of the program, you should prompt the user for a word like this:

**lookup  
Please enter a word:**

If the user enters several words on the same command, you should print definitions of them in the order that the user specified them, with a blank line between definitions, like this.

**lookup green red blue**  
  
**green: a color, the color of grass**  
  
**red: a color, dark pink**  
  
**blue: a color, the color of the sky**

The blank line between the command and the first definition is optional. If the user enters a word that is not in the dictionary, print "not found" as the definition, like this.

**lookup yellow**  
  
**yellow: not found**

Turn in a printout of your source code.