



# B2 - Stumpers

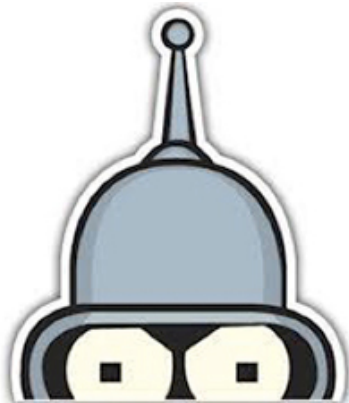
---

B-CPE-210

## MixWord

---

Duo Stumper



1.00



# MixWord

binary name: mixword  
repository name: CPE\_duostumper\_\$(STUMPERNUMBER)\_\$(ACADEMICYEAR)  
repository rights: ramassage-tek  
language: C  
compilation: via Makefile, including re, clean and fclean rules



- Your repository must contain the totality of your source files, but no useless files (binary, temp files, obj files,...).
- Error messages have to be written on the error output, and the program should then exit with the 84 error code (0 if there is no error).



The \$(STUMPERNUMBER) is always on one digit: 1, 2, ...



For this project, the **only** authorized functions are those of the standard `libc`.

The goal of mixword is to place the **maximum** amount of words in a grid, while fulfilling the following requirements:

- A word can be inserted horizontally
- A word can be inserted vertically
- A word can be inserted diagonally
- A word can be inserted backwards
- The same square in the grid can be used for several words
- The same square cannot be used several times for the same word
- The letters that make up a word must all be aligned (vertically, diagonally, horizontally)

You must fill in the remaining cells of the grid with random lowercase letters.

You must display the number of words inserted in the grid and the number of words in the database passed as parameter then you must display the grid.

Usage: `./mixword -f FILE [-s SIZE]`



- `-f [FILE]`: defines the database that will be used in order to complete the grid. The file will contain one word per line and the words will only be made up of lowercase letters (abcdefghijklmnopqrstuvwxyz).
- `-s SIZE`: defines the size of the grid. The value is 8 by default.



```
Terminal
~/B-CPE-210> cat -e db.txt
worda$
wordb$
wordc$
~/B-CPE-210> ./mixword -f db.txt -s 5
3/3 words inserted in the grid.
+++++++
|adrow|
|tyuoo|
|ddrdr|
|wdwed|
|cdxcb|
+++++++
~/B-CPE-210> ./mixword -f db.txt -s 4 &>/dev/null; echo $?
84
~/B-CPE-210> cat -e db2.txt
worda$
wordb$
wordc$
worde$
wordf$
wordg$
wordh$
acefg$
wordi$
~/B-CPE-210> ./mixword -f db2.txt -s 5
6/9 words inserted in the grid.
+++++++
|worda|
|wordc|
|worde|
|wordf|
|wordg|
+++++++
```