

# Frequency Analyzer

## Task

Implement a program that analyzes arbitrary text files by counting the occurrence of letters. All special characters (e.g. -, ., ,, \s, \n) and numbers should be ignored. The program should treat all letters as case-insensitive and output:

- the letter,
- the number of its occurrence and
- a percentage value in relation to all letters in the text

For example, the following text should generate a similar output as shown below.

This is a simple test

S	4	0.23529	23.529 %
T	3	0.17647	17.647 %
I	3	0.17647	17.647 %
E	2	0.11765	11.765 %
H	1	0.05882	5.882 %
A	1	0.05882	5.882 %
M	1	0.05882	5.882 %
P	1	0.05882	5.882 %
L	1	0.05882	5.882 %

### TIP

Design your program such that you can easily reuse the frequency-analysis component in other programs as well.

### WARNING

You can use any programming language you want. We will need the frequency analyzer for some other challenges as well. So choose wisely!

Example output of a frequency analyzer program using the input [test.txt](#).

```
$ python solution.py ../test.txt
E 562 0.11408
T 467 0.09480
I 428 0.08688
A 423 0.08587
O 396 0.08038
S 356 0.07226
U 344 0.06983
M 299 0.06069
R 292 0.05927
L 277 0.05623
D 246 0.04993
N 242 0.04912
C 137 0.02781
P 104 0.02111
G 77 0.01563
V 67 0.01360
B 52 0.01055
Q 38 0.00771
Y 28 0.00568
K 24 0.00487
F 22 0.00446
J 12 0.00243
H 11 0.00223
Z 10 0.00203
X 8 0.00162
W 4 0.00081
```