Exercises — CSV

version **#7be580532266ed398481e31366afcc24b1950c2a**

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Contents

*https://intra.assistants.epita.fr

File Tree

```
csv/
├── Makefile  (to submit)
└── csv.c  (to submit)
```

Makefile

- all: Produce the csv binary

Authorized functions : You are only allowed to use the following functions

- atoi(3)
- fclose(3)
- fopen(3)
- free(3)
- getline(3)
- printf(3)
- puts(3)
- strdup(3)
- strndup(3)
- strtok_r(3)

Authorized headers : You are only allowed to use the functions defined in the following headers

- err.h
- errno.h
- assert.h
- stddef.h

Compilation : Your code must compile with the following flags

- -std=c99 -pedantic -Werror -Wall -Wextra -Wvla

Main function : Required

1 Goal

A CSV[1] file is a text file containing lists of values. This format is really helpful to represent arrays. Each line in a CSV file contains a new array, in which every values are separated by comas. MS Excel, and many databases can export/import data to/from a CSV file. For example:

[1] http://en.wikipedia.org/wiki/Comma-separated_values

```
First Name,Last Name,Birth Date
Brian,Dillon,1932
Elizabeth,Flynn,1964
Victoria,Sawyer,1988
```

First Name	Last Name	Birth Date
Brian	Dillon	1932
Elizabeth	Flynn	1964
Victoria	Sawyer	1988

We want you to create a program that print the max value of each line from the CSV. It will take as first parameter the CSV file. If no parameter are given or the file doesn't exists, you must exit 1.

In the given CSV, you have to handle only numbers that an int can hold. If a column is missing, skip it.

The basic way to achieve this is:

- read the file line by line,
- get the different `int` of the current line
- print the biggest value of the line

Here is a snippet that you will have to work on:

```
1,5,8,9,3,4,65,178,1246,2,-1,-4,-7,-54,-63
9,-4,5,-9,8,-8,245,-985,-74,-658,-632,-87,-5,47,-8,5,-18
7,-9,18,356,47,523,2111,-254,-532,-789,-986,325,-1
,,,,
-54,986,325,0,-1,78

-4,-1,-9
```

Expected output:

```
42sh$ ls
csv csv.c ex.csv Makefile
42sh$ cat -e ex.csv
1,5,8,9,3,4,65,178,1246,2,-1,-4,-7,-54,-63$
9,-4,5,-9,8,-8,245,-985,-74,-658,-632,-87,-5,47,-8,5,-18$
7,-9,18,356,47,523,2111,-254,-532,-789,-986,325,-1$
,,,,$
-54,986,325,0,-1,78$
$
-4,-1,-9$
42sh$ ./csv ex.csv | cat -e
1246$
245$
2111$
0$
986$
0$
-1$
42sh$
```

The way is lit. The path is clear. We require only the strength to follow it.