

Sort a List of Strings in C

Emmanuel Benoist, Christian Grothoff, Pascal Mainini

Fall Term 2019/2020

This exercise must be done inside the clone of your own fork of the skeleton git repository.

1 Presentation of the files

The file `sort.c` contains a C file that must be completed. This is the main file you have to change.

The file `makefile` contains the instructions for the compilation.

2 Goal of the exercise

The goal of this exercise is to write a program in C which sorts the lines of its input. By default, lines are sorted in ascending order. The program must support an optional `-r` parameter which causes sorting to be done in descending order. For example, ascending mode looks like this:

```
a
c
b
```

The output must be

```
a
b
c
```

3 Expected Output

The program must sort lines in ascending or descending order. For testing, enter lines interactively and terminate input with `<Control-D>`.

3.1 Output without optional parameter

```
machine-:~$ ./sort
a
v
b
<Control-D>
a
b
v
```

```
machine-:~$ ./sort
bonjour
hallo
gruesseuch
<Control-D>
bonjour
gruesseuch
hallo
```

3.2 Output with optional parameter

```
machine-:~$ ./sort -r
a
v
b
<Control-D>
v
b
a
```

```
machine-:~$ ./sort -r
bonjour
hallo
gruesseuch
<Control-D>
hallo
gruesseuch
bonjour
```

4 Upload the result to the Git repository

You must upload the file you wrote, `sort.c`, to the repository.

```
machine-:$ git add sort.c
....
machine-:$ git commit -m"solution for exercise 4"
....
machine-:$ git push origin master
```

5 Get feedback

You can inspect the results of the automated tests for your program inside gitlab CI (<https://gitlab.ti.bfh.ch>, go to CI/CD > Jobs in your forked project). There, you will also find the amount of points given.