Chapter I
Subject

• Create a program that resolves a sudoku.

• Your submission directory must have all files required to compile your program.

• You must submit a *Makefile* which will compile your source files.

• Your executable must be named *sudoku*

• A valid sudoku has only one possible solution.

• Here's how we'll launch your program :

> ./rush-1 line0 line1 line2 line3 line4 line5 line6 line7 line8

• LineN represents a characters string of values ranged between '1' and '9' or '.' (for empty boxes).

• Here's an example of intended input/output for a valid sudoku.

>./sudoku "9...7...." "2...9..53" ".6..124.." "84...1.9." "5.....8.." ".31..4..."
«..37..68." ".9..5.741" "47......." | cat -e
9 1 4 3 7 5 2 6 8$
2 8 7 4 9 6 1 5 3$
3 6 5 8 1 2 4 7 9$
8 4 6 5 2 1 3 9 7$
5 2 9 6 3 7 8 1 4$
7 3 1 9 8 4 5 2 6$
1 5 3 7 4 9 6 8 2$
6 9 8 2 5 3 7 4 1$
4 7 2 1 6 8 9 3 5$
>

• In case of error, display "Error" followed by a line break.

Chapter II

Bonus part

We will look at your bonus part if and only if your mandatory part is EXCELLENT. This means that you must complete the mandatory part, beginning to end, and your error management needs to be flawless, even in cases of twisted or bad usage. If that's not the case, your bonuses will be totally IGNORED.

Find below a few ideas of interesting bonuses you could create. Some could even be useful. You can, of course, invent your own, which will then be evaluated by your correctors if they feel like it.

• Alternative read option -r that changes the source of input data from command line arguments to a file, which goes after the flag (./sudoku -r «file_path» …)

• Writing solution option -w that writes your solution into a file, which goes after the flag (./sudoku -w «file_path» …)

• Colour option -c that change the colour of your output (./sudoku -c red …)

• Management of few solutions cases
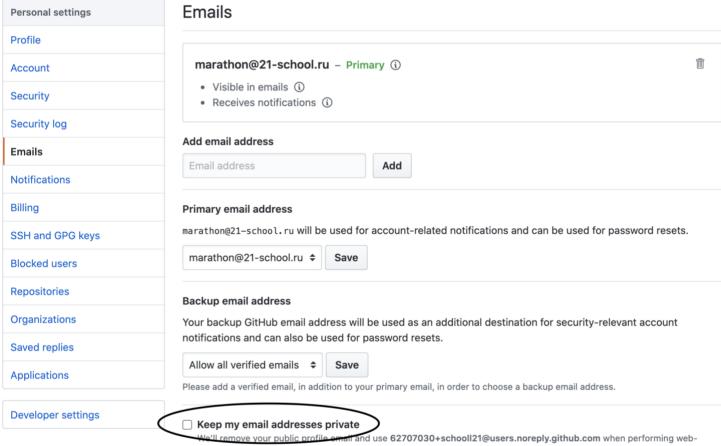
• Formatted output

• Flags combinations

How to submit your work

1. You must register on https://github.com/ using your email from intra

2. Make sure that your email address is not private

3. Create private repository

Public
Anyone can see this repository. You choose who can commit.

Private
You choose who can see and commit to this repository.

4. Add **marathon@21-school.ru** в colloborators