

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.

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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



✉ am@21-school.ru

2. Make sure that your email address is not private

Personal settings

Profile

Account

Security

Security log

Emails

Notifications

Billing

SSH and GPG keys

Blocked users

Repositories

Organizations

Saved replies

Applications

Developer settings

Emails

marathon@21-school.ru – Primary ⓘ

• Visible in emails ⓘ

• Receives notifications ⓘ

Add email address

Email address

Add

Primary email address

marathon@21-school.ru will be used for account-related notifications and can be used for password resets.

marathon@21-school.ru ⌵

Save

Backup email address

Your backup GitHub email address will be used as an additional destination for security-relevant account notifications and can also be used for password resets.

Allow all verified emails ⌵

Save

Please add a verified email, in addition to your primary email, in order to choose a backup email address.

☐ Keep my email addresses private

We'll remove your public profile email and use 62707030+school21@users.noreply.github.com when performing web-based Git operations (e.g. edits and merges) and sending email on your behalf. If you want command line Git operations to use your private email you must [set your email in Git](#).

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** as collaborators

The screenshot shows the GitHub repository settings page for a repository named 'marathon'. The 'Settings' tab is selected in the top right. On the left sidebar, the 'Manage access' option is highlighted. A modal dialog box titled 'Invite a collaborator to marathon' is open in the center. It contains a search bar with the text 'marathon@21-school.ru' and a list of search results showing 'school21' with the role 'Invite collaborator'. Below the dialog, the 'Manage access' section is visible, showing a message: 'You haven't invited any collaborators yet'. It includes a link to 'Learn more' and a green button labeled 'Invite a collaborator'.