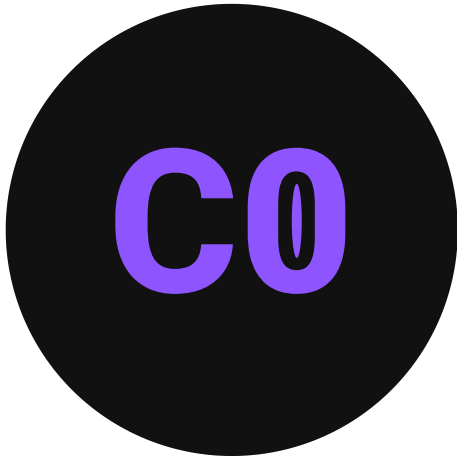


# C0 - Project proposal.md

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## C0 - Project proposal



Subject: Individual project - Fontys Semester 2 ICT & Software Engineering

By: Yordan Mitev, Class #7

2023-02-12

Git: <https://github.com/daki4/C0>

## Purpose

### C0 is a platform allowing teachers and students...

to create and solve exercises and problems the modern way! The aim of this site is to allow teachers to create exercises for students to try and solve. As a student, maybe one of the most boring things we can do is to be told to "Solve this exercise by tomorrow", and then as a teacher, get overwhelmed by submissions numbering gigabytes in the inbox, most of it being **build Artefacts** and endless amount of **.zip** files. The other thing is, encouraging students to compete over a leaderboard spot is also a big contributing factor to engagement, and would be also very useful.

What a wonderful world would it be if we could have a platform that allows a teacher to create an exercise, mark who can see it, and let people submit solution the way the teacher wants it:

- as code (when possible),
- as a plain simple answer to the problem,

## Aim

The main feature aims of this site will be to:

- allow a teacher to create exercises for students
- allow the teachers to see who has submitted solutions
- difficulty system set by the teachers rewarding points
- points system to reward solvers
- a leaderboard system
- have different types of submissions:
  - as plain-simple answer (example: How much is  $1 + 1$ ? -> "2")
  - as a code submission (example: Write "Hello world!" in Python. `print("Hello world!")` )

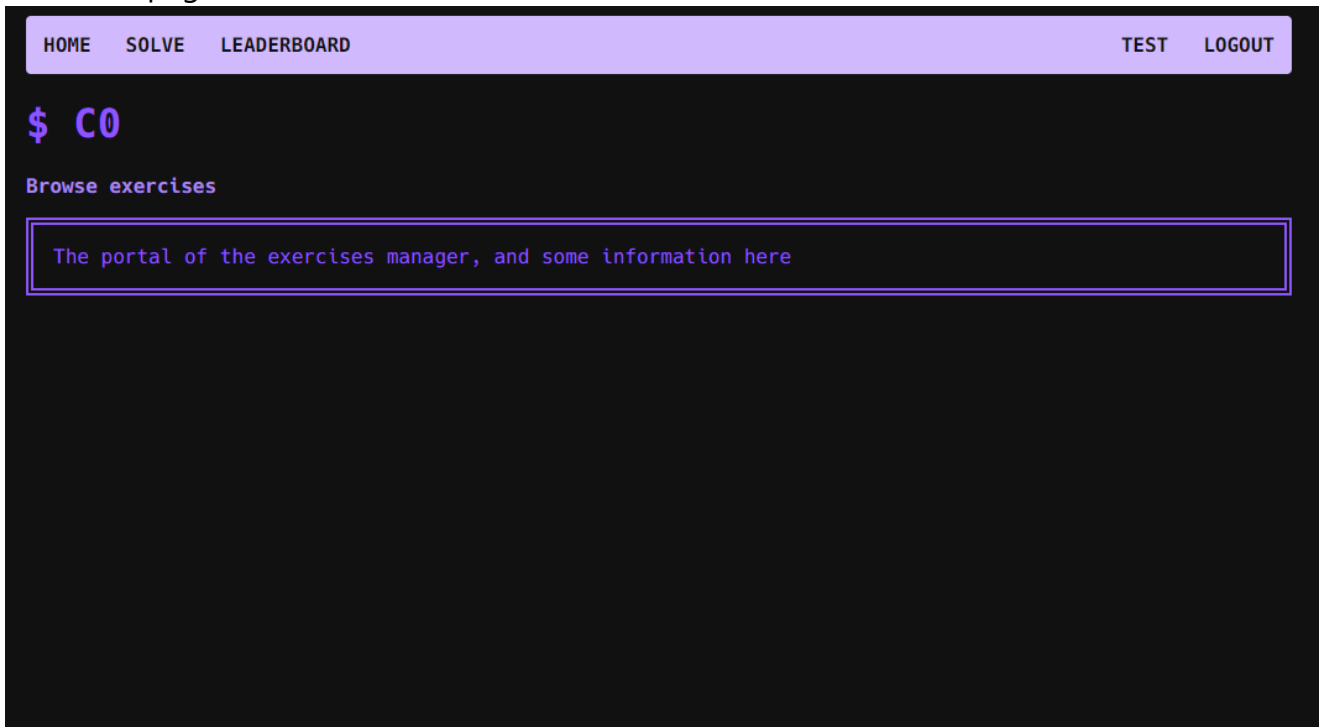
## Sitemap

### Home Page

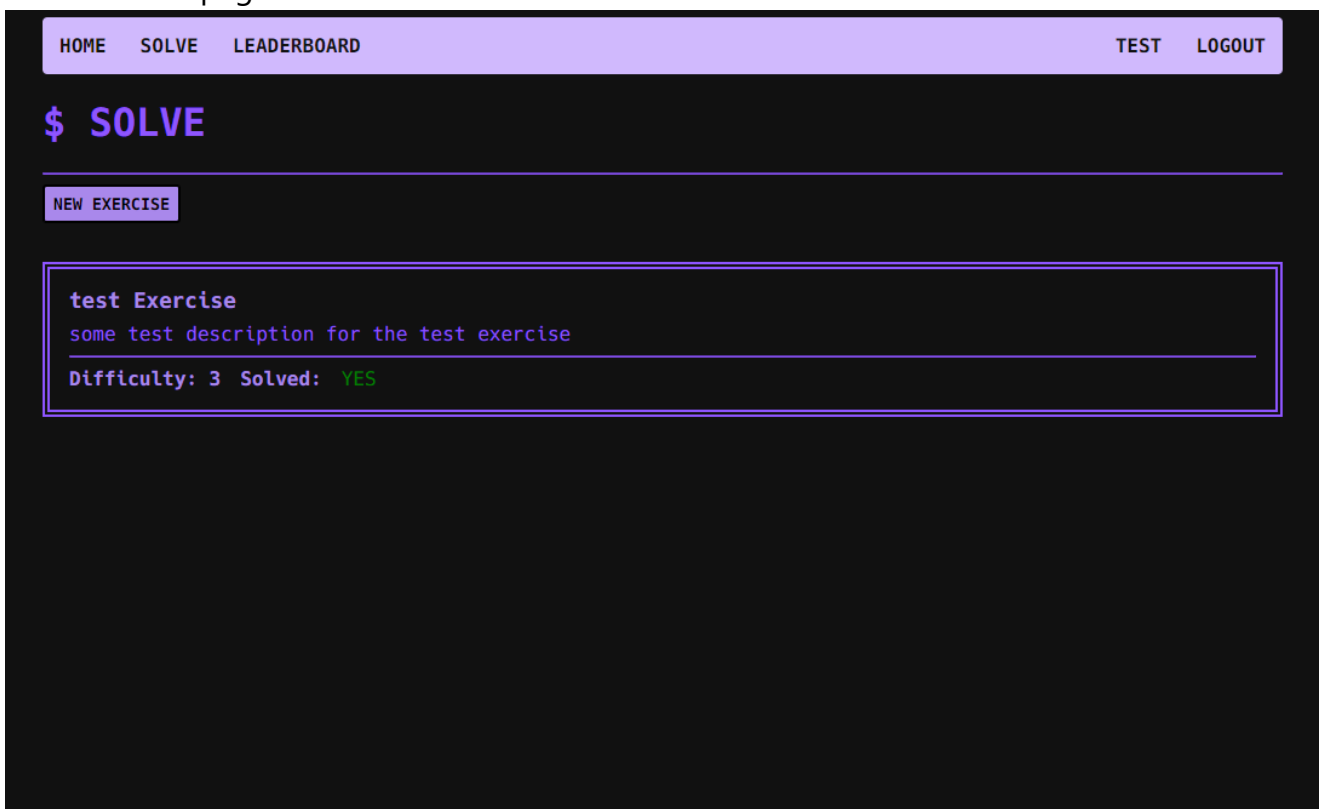
- Page with information about the application and institution
- Exercises page with a list of the exercises
  - if logged in, also a status if you have already solved the exercise
- Exercise page with the problem description, difficulty, and a link to the input
  - if logged in, also a history of previous solutions
  - if logged in also a status if you have already solved the exercise
- Input page, plain-text version of the input that is to be used for the exercise
- Leaderboard page with the points of the different students/users
- User page to see and edit personal information

## Wireframes

The homepage:



The exercises page:



The exercise page:

[HOME](#) [SOLVE](#) [LEADERBOARD](#) [TEST](#) [LOGOUT](#)

## \$ SOLVE: test Exercise

some test description for the test exercise

Solution:  [SOLVE](#)

Get your input

▼ Your solutions

- X asdasd
- X test answer
- X some answer
- X some asdasd
- X some test

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Difficulty: 3 Solved: NO

Input is plain text that is accessible through a link:



The leaderboard:

[HOME](#) [SOLVE](#) [LEADERBOARD](#) [TEST](#) [LOGOUT](#)

# \$ LEADERBOARD

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1. **test** (15 score)

2. **admin** (0 score)

The user page:

[HOME](#) [SOLVE](#) [LEADERBOARD](#) [TEST](#) [LOGOUT](#)

# \$ USER: test

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→ **Username**  
test

→ **Email**  
test@protonmail.com

→ **Permission**  
AuthAuthor

→ **Score**  
15

→ **Created**  
2023-02-12 21:17:00