

Informatik

Vorlesung am D-MATH / D-PHYS der ETH Zürich

Bernd Gärtner

HS 2017

Welcome

to the Course Informatik!

at the D-MATH/D-PHYS of ETH Zürich.

Place and time:

Tuesday 13:15 - 15:00, ML D28, ML E12.

Pause 14:00 - 14:15, slight shift possible.

Course web page

<http://lec.inf.ethz.ch/ifmp>

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Team

assistants	Max Biegert David Graf Sven Heberle Tobias Klenze Christoph Müller Felix Richter David Sommer Bhargav Bhatt Reza Sefidgar Eliza Wszola	Marius Gächter Sejdiu Haki Maximilian Holst Adrian Langenbach Benjamin Rothenberger Tobias Sägesser Matthias Untergassmair Sinisa Matetic Alen Stojanov Marco Guarnieri
lecturer	BG	

Registration for Exercise Sessions

- Registration via web page
- 14 groups in German, 5 groups in English, one group in Italian
- Registration open today (September 19) from 3:15 p.m.
- All exercise sessions take place in parallel, you only have to watch out for the language!

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Procedure

- Day 0 (Tuesday): Exercise available with lecture (online), first prediscussion in the exercises
- Day 7 (Tuesday): Discussion of the exercise
- Day 12 (Sonntag): Latest submission of the exercise
- Day 14 (Tuesday): Postdiscussion of the exercise

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Exercises

Bonus!

- At ETH an exercise certificate is not required in order to subscribe for the exams.
- The solution of the weekly exercises is thus voluntary but *strongly* recommended.
- During the semester we offer weekly programming exercises that are graded. Points achieved will be taken as a bonus to the exam.
- The achieved grade bonus is proportional to the achieved points of all exercise series. Achieving all points corresponds to 1/4 grade.

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Academic integrity

Rule: You only submit solutions that you have written yourself and that you have understood.

We check this (partially automatically) and reserve our rights to invite you to interviews.

Should you be invited to an interview: don't panic. Primarily we presume your innocence and want to know if you understood what you have submitted.

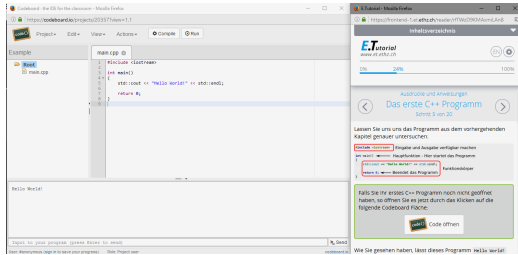
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On cloud nine...

- For the exercises, we use a very easy to use online development environment that requires only a browser, internet connection and your ETH login.
- All your drafts and solutions are stored online and accessible from everywhere.
- If you do not have access to a computer: there are a lot of computers publicly accessible at ETH.

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Online Tutorial



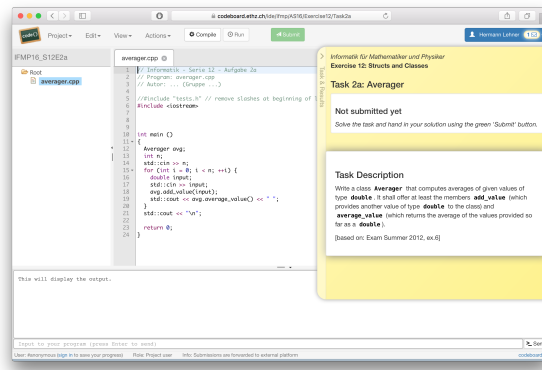
For a smooth course entry we provide an *online C++ tutorial*
Goal: leveling of the different programming skills.

Written mini test for your *self assessment* in the first exercise session (Tuesday, September 26), no effect on final grade

Codeboard

Codeboard is an online IDE: programming in the browser!

- Bring your laptop / tablet / ... along, if available.
- You can try out examples in class without having to install any tools.



Exams

The exam (in the winter or summer examination period 2018) will cover

- Lectures content (lectures, handouts)
- Exercise content (exercise sessions, exercises).

Written exam without any examination adds.

We will test your practical skills (programming skills ¹) and theoretical knowledge (background knowledge, systematics).

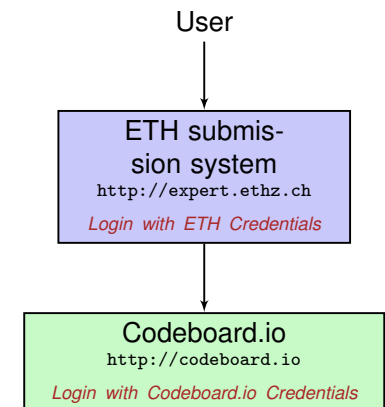
¹as far as possible in a written exam

Codeboard

Expert

Our exercise system consists of two independent systems that communicate with each other:

- **The ETH submission system:** Allows us to evaluate your tasks.
- **The online IDE:** The programming environment



Exercise Registration

Codeboard.io Registration

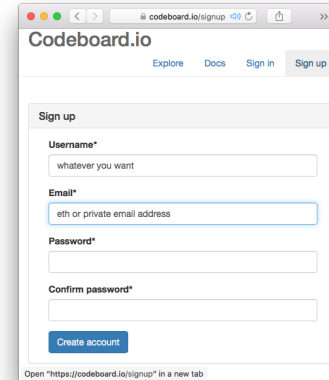
Go to <http://codeboard.io> and create an account, stay logged in.

Registration for exercises

Go to <http://expert.ethz.ch/ifmp17> and inscribe for one of the exercise groups there.

Codeboard.io Registration

If you do not yet have an **Codeboard.io** account ...



The screenshot shows the Codeboard.io sign-up page. It has a navigation bar with 'Explore', 'Docs', 'Sign in', and 'Sign up'. The main form is titled 'Sign up' and contains the following fields: 'Username*' with a placeholder 'whatever you want', 'Email*' with a placeholder 'eth or private email address', 'Password*', and 'Confirm password*'. A blue 'Create account' button is at the bottom. The browser's address bar shows 'codeboard.io/signup'.

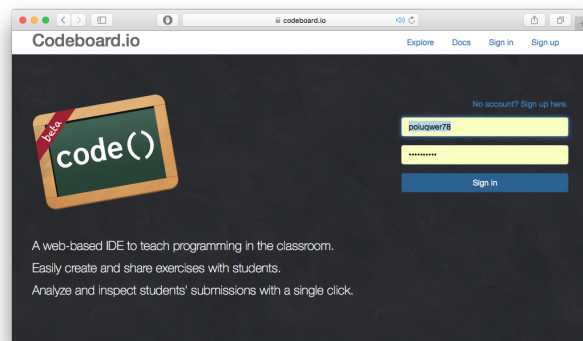
- We use the online IDE **Codeboard.io**
- Create an account to store your progress and be able to review submissions later on
- Credentials can be chose arbitrarily *Do not use the ETH password.*

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Codeboard.io Login

If you have an account, log in:

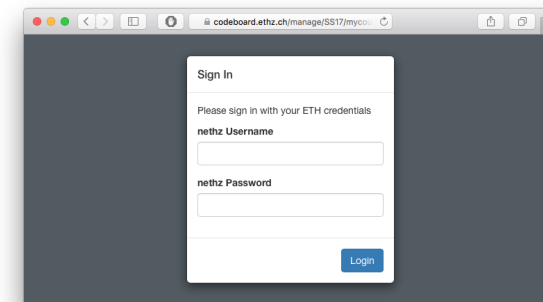


The screenshot shows the Codeboard.io login page. It features a dark background with a 'code()' logo on a tablet. The text reads: 'A web-based IDE to teach programming in the classroom. Easily create and share exercises with students. Analyze and inspect students' submissions with a single click.' On the right, there is a 'Sign in' form with fields for 'username' (containing 'poluqwerz8') and 'password' (containing '.....'), and a blue 'Sign in' button. A link 'No account? Sign up here.' is above the form.

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Exercise group registration I

- Visit <http://expert.ethz.ch/ifmp17>
- Log in with your nethz account.

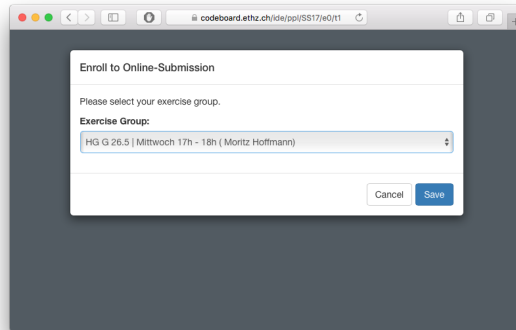


The screenshot shows the Codeboard.io login page with a white sign-in form overlay. The form is titled 'Sign In' and asks to 'Please sign in with your ETH credentials'. It has fields for 'nethz Username' and 'nethz Password', and a blue 'Login' button.

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Exercise group registration II

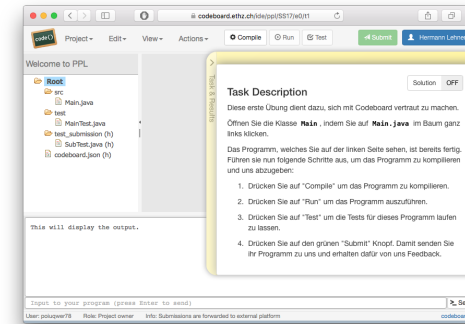
Register with this dialog for an exercise group.



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The first exercise.

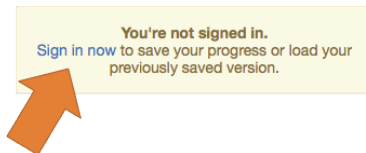
You are now registered and the first exercise is loaded. Follow the instructions in the yellow box.



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The first exercise – codeboard.io login

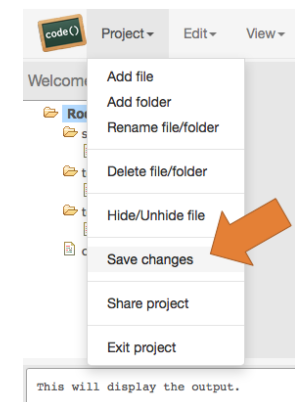
Attention If you see this message, click on [Sign in now](#) and register with you **codeboard.io** account.



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The first exercise – store progress

Attention! Store your progress regularly. So you can continue working at any different location.



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Literature

- The course is designed to be self explanatory.
- Skript together with the course Informatik at the D-MATH/D-PHYS department.
- Recommended Literature
 - B. Stroustrup. *Einführung in die Programmierung mit C++*, Pearson Studium, 2010.
 - B. Stroustrup, *The C++ Programming Language* (4th Edition) Addison-Wesley, 2013.
 - A. Koenig, B.E. Moo, *Accelerated C++*, Addison Wesley, 2000.
 - B. Stroustrup, *The design and evolution of C++*, Addison-Wesley, 1994.

Credits

- Course structure developed together with Prof. Bernd Gärtner
- Skript from Prof. Bernd Gärtner.