DAT310

Web programming

2024 spring

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About me

- Associate professor at UiS
  - Distributed systems/Blockchain
- Worked as web developer for 2 years

What is web programming?

Goals for this course

- Learn Web programming
  - Client-server communication on the Web
  - Mark-up languages, W3C standards
  - Client-side scripting, server-side programming
  - Building complex web applications
  - Using existing tools and frameworks
- Build an interactive website

Web technologies

Flask

Teaching style

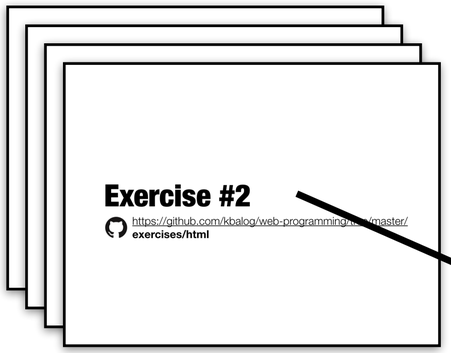
- Slides give technology overview
- In class exercises (*bring your own device*)
- Live coding

Schedule

Day	Hour	Room	
Tue	8 - 12	AR-G001	Forelesning
Thu	10 - 14	AR-G001	Forelesning
Fre	8 - 12	E454	Lab

Lectures include exercises

Lecture



Exercises on GitHub

Exercise #1: Hello world

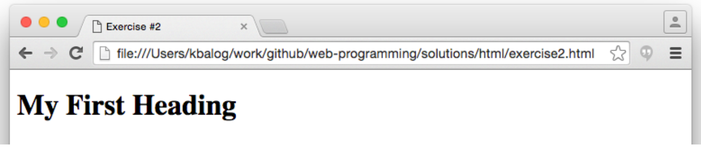
Copy-paste the following snippet to a text editor and save it as exercise1.html. Then open the file with any web browser (e.g., Firefox, Chrome, or Internet Explorer).

```
<!DOCTYPE html>
<html>
<head>
    <title>Exercise #1</title>
</head>
<body>
    Hello world!
</body>
</html>
```

Exercise #2: Headings and paragraphs

Create the following HTML page. You can use a text editor or the w3schools try-it editor.

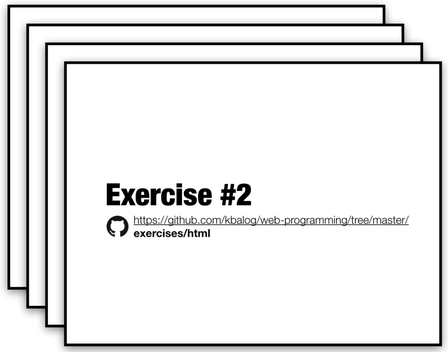
- The headings should be `<h1>`, `<h2>`, and `<h3>` (don't forget the closing tags!)
- The paragraph text should be inside `<p>..</p>`.



Solve these exercises during/after lectures!

Missed lectures

- What to do:
- Flip through slides
- Do in class exercises
  - Solutions are available



Course schedule

- Lecture: Tue 8-12 and Thu 10-14
- Lab: Fri 8-12 and 14-16

Assignments

- 7 assignments in total
  - Increasingly more difficult
- To be completed individually
- Binary assessment: approved (godkjent) or not approved (ikke godjkent)
- At least 5 points needed (approx. 7 assignments) to be allowed to take the exam
  - At least 4 points from Assignments #1-#5
  - At least 2 points from Assignments #6-#7

Assignments

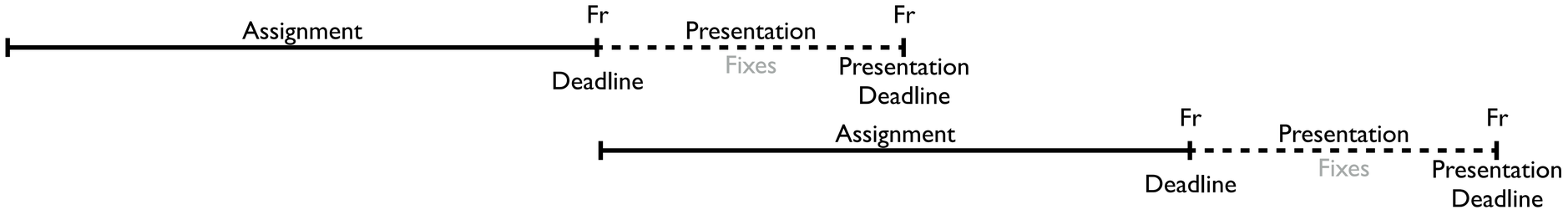
Assignment	Announced	Deadline	Points	Solution
#1 HTML	04. Jan	12. Jan 18:00	0.7p	
#2 CSS	09. Jan	18. Jan 18:00	0.7p	
#3 Page Prototype	16. Jan	26. Jan 18:00	1.4p	
#4 JavaScript	23. Jan	09. Feb 18:00	1.3p	
#5 Vue Memory	06. Feb	23. Feb 18:00	1.3p	
#6 Templates	22. Feb	08. Mar 18:00	1p	
#7 AJAX	05. Mar	22. Mar 18:00	1p	
#8 Rest Backend			0p	not mandatory

Rules for assignments

1. No deadline extensions
   - Special cases (e.g., illness) are only considered if reported min 3 days (=72 hours) before the deadline
2. Presentation at least 1 week after deadline
3. Present at most 2 times
4. Working together is allowed, copying someone else's solution is not
   - 1st time: warning (assignment is not accepted)
   - 2nd time: you'll be dismissed from the course

Rules for assignments

4. Once the solution has been posted, submissions can no longer be accepted



ChatGPT

- Useful tool
- Very good at solving some of the assignments
- You need to read and understand your solution

Quickfeed

- Shows assignments and approval.
- Use GitHub to submit assignments.

Course project

- Instead of an exam, you build your own web application.
- Functional and technical requirements apply.
- Groups of 2 students
- Start after easter
- 8 weeks duration
- Oral presentation

Admin

- Course responsible: Leander Jehl
  - Send an email or talk after lectures:
  - leander.jehl@uis.no

- Lab responsible: Jostein Lindhom
  - jostein.lindhom@uis.no

- Lecturer backend: Petra Galuscakova

Student testimonials

What did you like about the course?

Fun to see the progress we made. From just a "simple" html page, to a more dynamic one.

It was fun

Practical, very practical

Very practical and hands-on, the best way to learn is to do, at least in my opinion.

The combination of slides and working on relevant exercises during lectures

You learn actual useful stuff

Student testimonials

What did you dislike about the course?

CSS

Didn't always had time to finish the exercises in class

The workload was perhaps a bit too much at times. Not by much though.

Maybe too many languages for a single course

Sometimes it felt overwhelming

Hated the complexity of the assignments but learned the most from it.

The pacing in the middle steps up. The course starts easy, but turns difficult fast.

Resources

- Announcements on **canvas**
- Slides, examples, exercises on **github**
  - github.com/dat310-2024/info
- Assignment status on autograder
  - https://uis.itest.run/

What do you need?

- Your own laptop
- A *proper* text editor
  - I.e., *not* Notepad
  - **VSCode,** Atom, etc.
- A *proper* browser which is *not* Internet Explorer, i.e., **Firefox** or Chrome

Signup - get connected

- Join GitHub
  - https://github.com/
- Join course on autograder
  - https://uis.itest.run/
- Accept invitation to course on github
  - https://github.com/dat310-2024
- Join Discord Server
  - https://discord.gg/v9aAARuktW

That’s all folks

- All this information can be found under the course’s GitHub repository

  github.com/dat310-2024/info