DAT310

Web programming

2021 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?

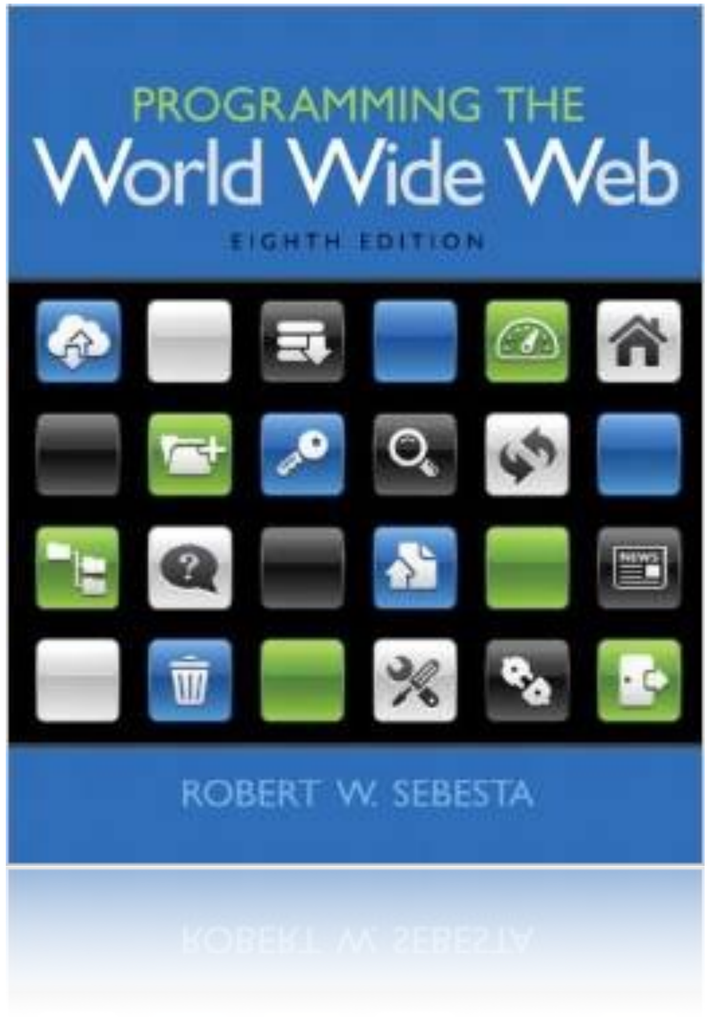
Goals for this course

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

Web technologies

Flask

Book



Not needed!

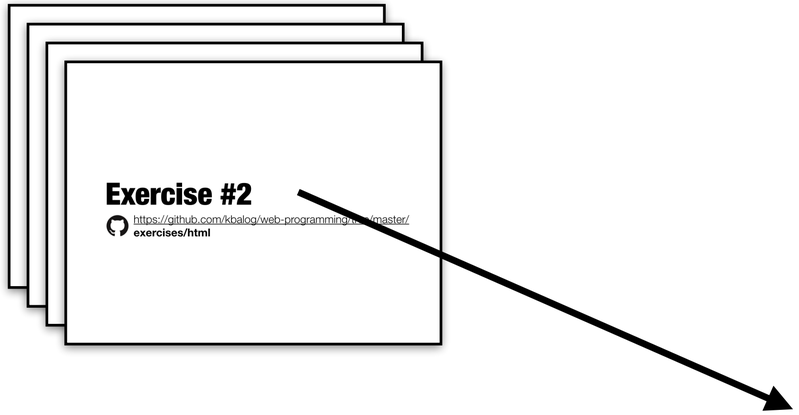
Slides, videos, exercises and solutions are curriculum!

Teaching style

- Flipped classroom:
  - Watch videos at home
  - Come to lab and solve the exercises
- Lab in small groups
  - Do the exercises and ask for help
  - Use slides to look up
  - Use solution or ask if you are stuck

Lectures include exercises

Lecture



Exercises on GitHub

Exercise #1: Hello world

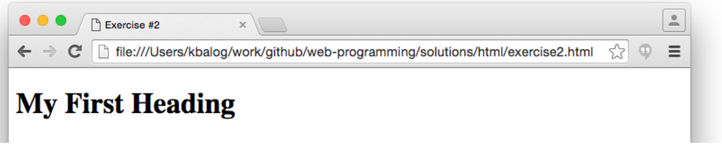
Copy-paste the following snippet to a text editor and save it as exercise1.html. Then open the file with any web browser (e.g., Firefox, Chrome, or Internet Explorer).

```
<!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 lab hours!

Course schedule

- Tue and Fri: 8-10 and 10-12 Lab
- January: Labs are digital
  - Join discord, ask questions during lab hours.
  - Ask for !help and do a video call with a TA.
  - Join DAT310 discord server
- February (hopefully)
  - Physical labs in small groups

Assignments

- 9 assignments in total
  - Increasingly more difficult
- To be completed individually
- Binary assessment: approved (godkjent) or not approved (ikke godjkent)
- At least 7 points needed (approx. 7 assignments) to be allowed to take the exam
  - At least 4 points from Assignments #1-#5
  - At least 3 points from Assignments #6-#9

Assignments

Assignment	Announced	Deadline	Points	Solution
#1 HTML	NaN	07/01	0.7p	
#2 CSS	NaN	15/01	0.7p	
#3 Page prototype	NaN	29/02	1.4p	
#4 JavaScript	29/02	12/02	1.3p	
#5 Vue Memory	12/02	26/02	1.3p	
#6 Templates	26/02	12/03	1p	
#7 AJAX	12/03	26/03	1p	
#8 Online shop	26/03	09/04	1p	
#9 Circuit Wars	09/04	23/04	1p	

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. Single re-submission is allowed
   - Some extra days are given to fix problems, if (and only if) the original submission is at least 60% correct
3. 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
5. **No exceptions!**

Autograder

- Use GitHub and Autograder to submit assignments.
- Assignment 1 and 2 have automatic tests. You need 80% to pass.
- Assignment 3 - 9 are graded manually.

Admin

- Student assistants
  - Present during lab time on Tuesdays and Fridays
  - Use !help to ask for help from student assistants during lab hours.
- Lecturer
  - Send an email to make an appointment:
  - leander.jehl@uis.no

Exam

- Curriculum: everything that was presented during the lectures
- Digital exam
- Open programming exam:
  - Programming exercises similar to assignments.
  - Completed in own IDE and uploaded once ready.

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-spring21/course-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-spring21
- Join Discord Server
  - https://discord.gg/DmYvcMHFxf
  - Type !register in Discord server

That’s all folks

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

  github.com/dat310-spring21/course-info