

MPCS 52553 - Web Development, Spring 2024

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This whole course boils down to just three ideas:

resource

representation

state

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all slides, notes, and code:

<https://github.com/mpcs52553/lectures>

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Jeff's Office Hours:

Zoom, by appointment

MPCS 52553

Canvas for quizzes, grades, videos, announcements

GitHub Classroom for assignments

Ed for discussion, questions, etc.

Zoom for office hours

There is no TA for this course.

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Week 1

Developing An Eye for the Web
Web Architecture

Week 2

Essentials of Front-End Development
HTML5/CSS3/JS, Mobile Responsiveness

Weeks 3 and 4

Essentials of Modern JavaScript
Syntax/DOM/Events/APIs

Week 5

Abstractions & Frameworks
Angular/React/Hotwire/Bootstrap/Tailwind

Weeks 6, 7, and 8

ReactJS
Components/Rendering/State/Hooks

Week 9

TBA

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There are **4 assignments** worth a total of 60 points.

There are **5 quizzes** worth a total of 40 points.

Your grade is the overall percentage of points achieved.

Grades are not curved.

You never need to request hw extensions (-1 pt/day)

A	93 - 100
A-	90 - 92
B+	88 - 89
B	83 - 87
B-	80 - 82
C+	76 - 79
C	70

MPCS 52553 - Due Dates

Week 1	3/20	<i>Homework and quizzes are due BEFORE ARRIVING for class.</i>
Week 2	3/27	HW1 (10)
Week 3	4/3	Quiz 1 (5)
Week 4	4/10	HW2 (10)
Week 5	4/17	Quiz 2 (5)
Week 6	4/24	HW3 (20)
Week 7	5/1	Quiz 3 (10)
Week 8	5/8	HW4 (20)
Week 9	5/15	Quiz 4 (10)
Finals	5/22	Quiz 5 (10)

Programming Patterns That Might Be New to You

anonymous functions

network I/O

asynchronous function calls

event-based programming

implicit return expressions

rules engines

Keys To Your Success



Use trusted sources

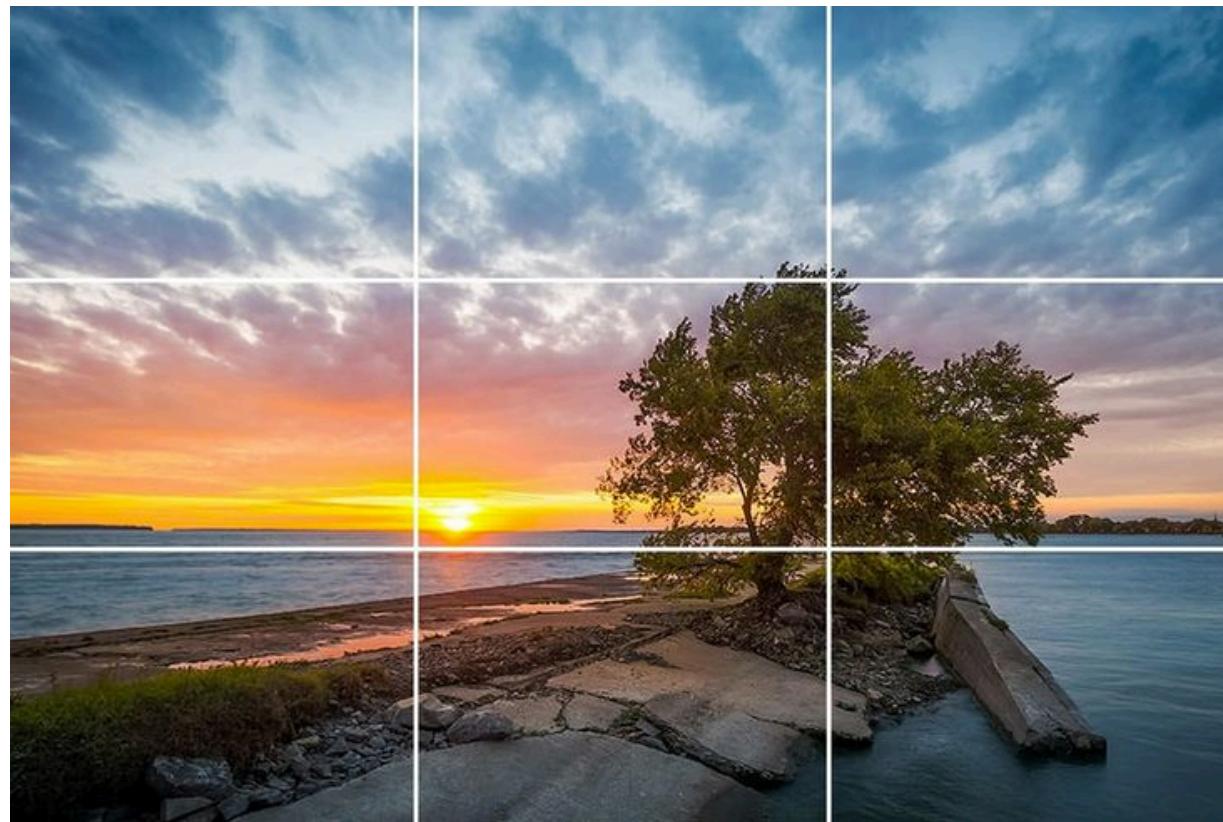
MDN (developer.mozilla.org)
w3schools.com
wizardzines.com



Know your editor

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Developing An Eye for the Web



1992

Information by Subject

See also arrangements by [organization](#) or by [service type](#). Mail www-request@info.cern.ch if you know of online information not in these lists....

Aeronautics

Mailing list [archive index](#).

Astronomy and Astrophysics

[Abstract Indexes](#) (down?)

Bio Sciences

See [separate list](#).

Computing

See [Networking](#), [Jargon](#), [newsgroups](#), [Software Technology](#), [Languages](#), [Algorithms](#).

Geography

CIA [World Fact Book](#), India: [Miscellaneous information](#), Thai-Yunnan: [Davis collection](#),

Law

US [Copyright law](#).

Libraries

Few libraries currently have servers - you have to log on to them. But you can find out how with [Art St.George's list of library systems](#), about "Library" in the [internet resource guide](#), an

Literature

[Project Gutenberg](#): two classic books a month. See their [explanations](#), the [index and newsletter](#), books published in [1991](#), [1992](#), and [reserved for the USA](#).

Humanities

[BMCR classical reviews](#), [Poetry](#), [SciFi reviews](#). See also [electronic journals](#).

Mathematics

[CIRM library](#) (french)

Meteorology

[US weather](#), state by state. Also [WAIS weather](#) (around MIT :-).

Music

[MIDI interfacing](#), [Song lyrics](#) (apparently disabled for copyright reasons)

Physics

[High Energy Physics](#), [Astrophysics abstracts](#).

Politics & Economics

[US politics](#). Includes campaign 1992.

Reference

Roget's [Thesaurus](#). Experimental [English dictionary](#).

Religion

[The Bible](#) (King James version), The Book of [Mormon](#), The [Holy Qur'an](#)

Social Sciences

[Coombs papers archive](#).

<http://info.cern.ch/hypertext/DataSources/bySubject/Overview.html>

1995



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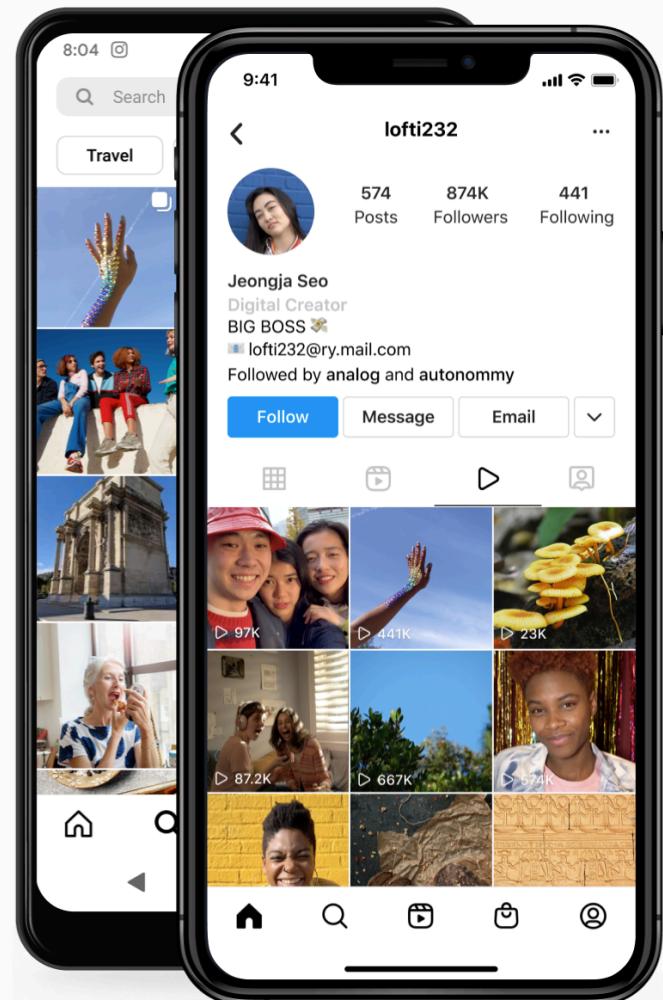
EYES & EDITORS, A PERSONAL NOTIFICATION SERVICE

Like to know when that book you want comes out in paperback or when your favorite author releases a new title? Eyes, our tireless, automated search agent, will send you mail. Meanwhile, our human editors are busy previewing galleys and reading advance reviews. They can let you know when especially wonderful works are published in particular genres or subject areas. Come in, [meet Eyes](#), and have it all explained.

YOUR ACCOUNT

Check the status of your orders or change the email address and password you have on file with us. Please note that you **do not** need an account to use the store. The first time you place an order, you will be given the opportunity to create an account.

2024



Instagram

Phone number, username, or email

Password

Log In

OR

Log in with Facebook

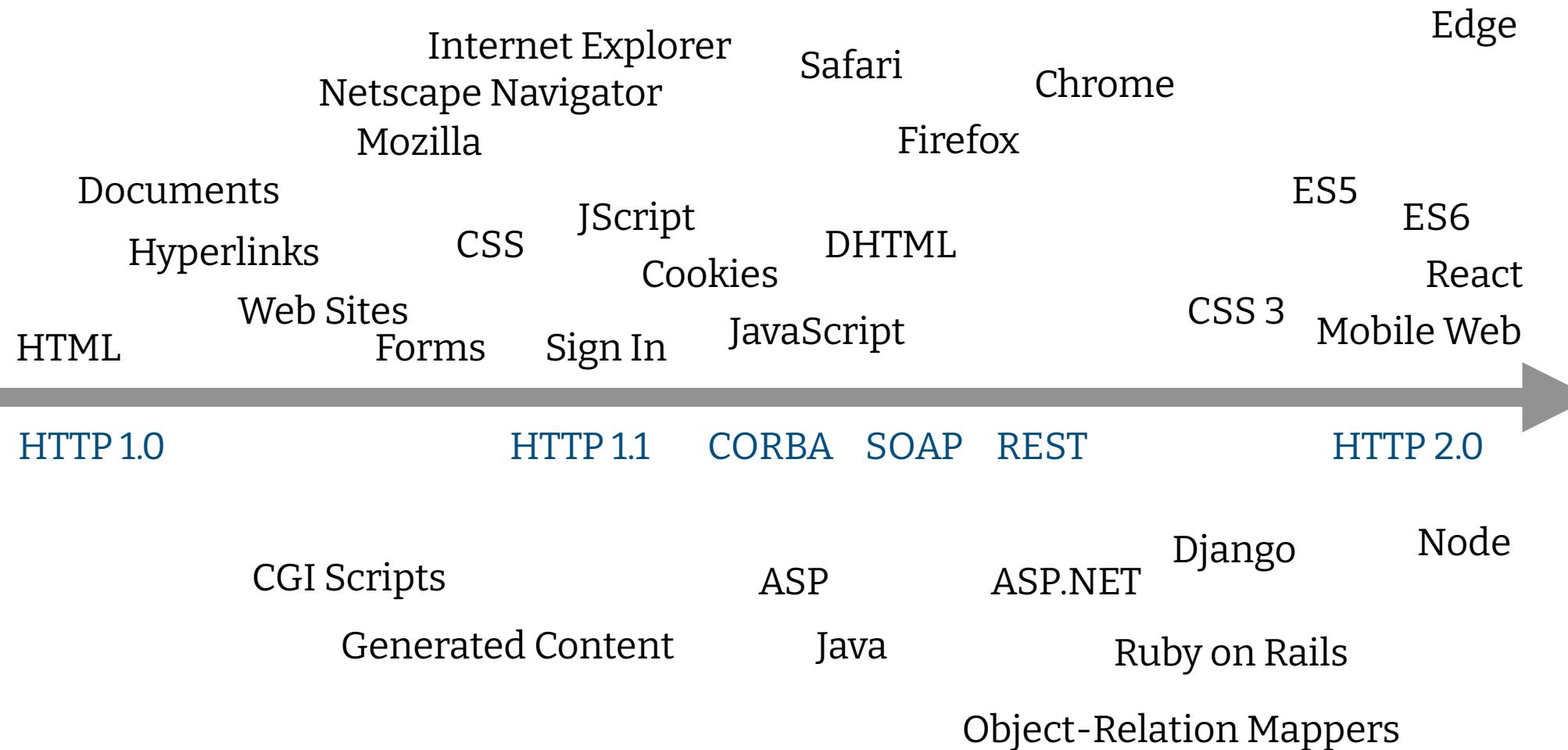
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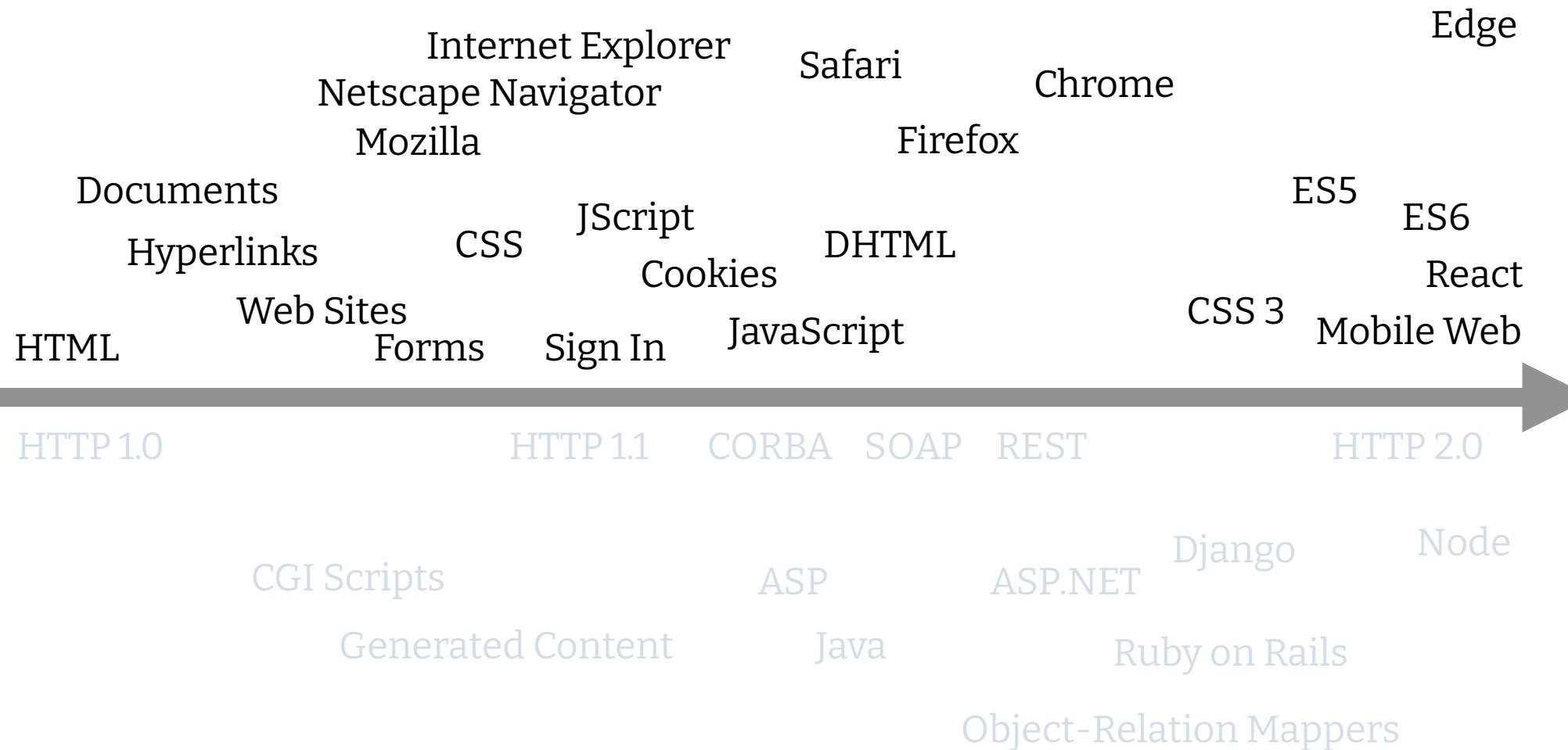
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The Story of the Web



The Story of the Web



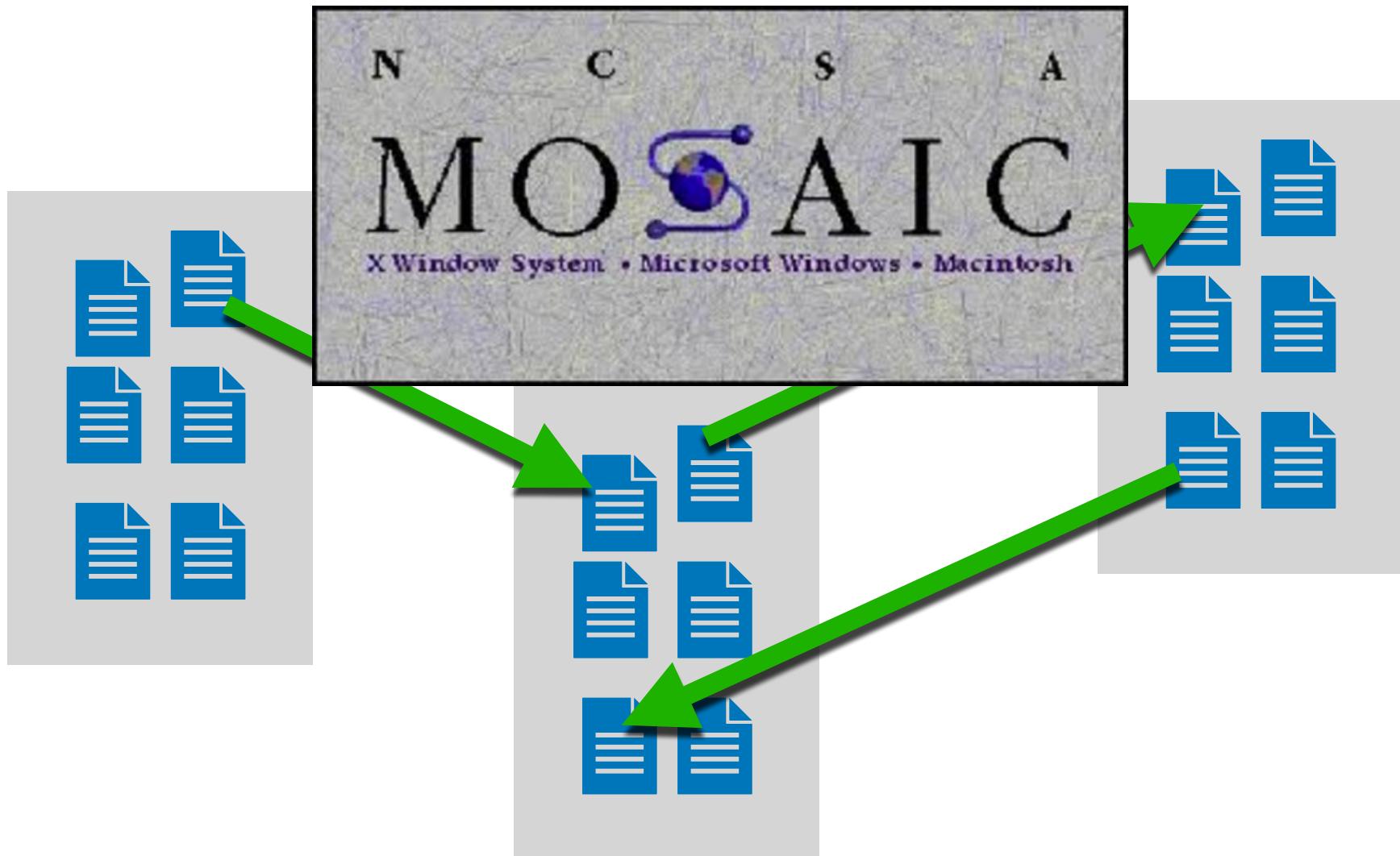
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Let's code.

The web started as "hyperlinked" documents.

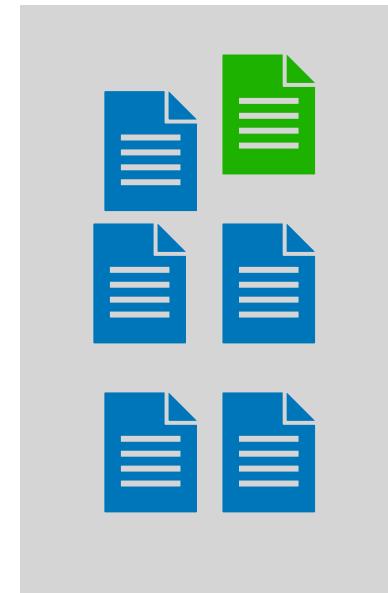
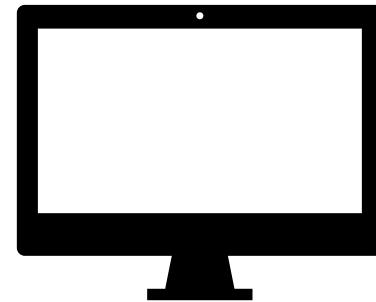
A "browser" is a program that receives "marked-up" text as input, and displays the content on the screen based on the "markup" instructions.

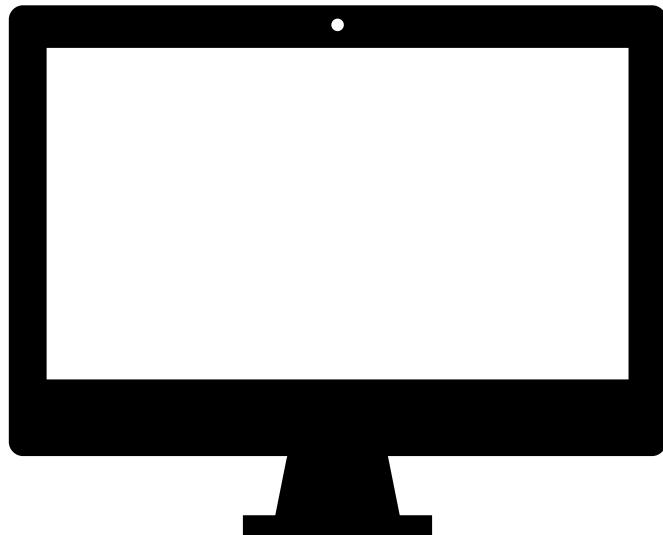
For more information,
[read this](//server/instructions.html).



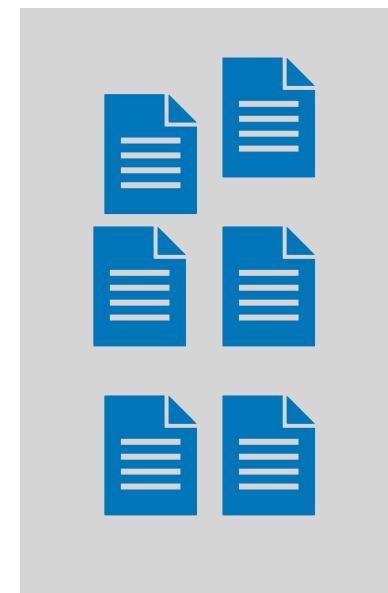
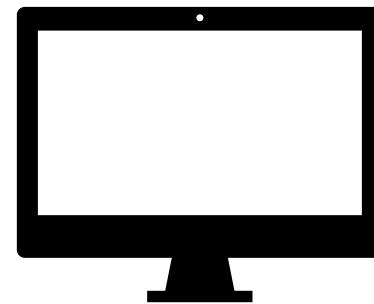


GET //uchicago/public/registrar/contact.html

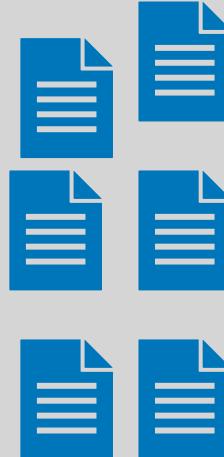
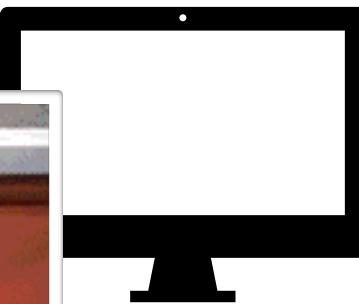


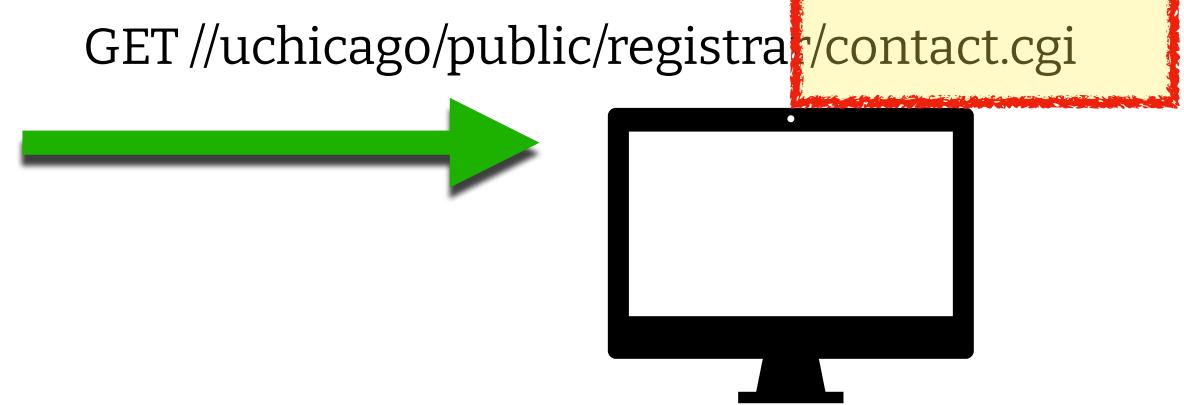


GET //uchicago/public/registrar/contact.cgi

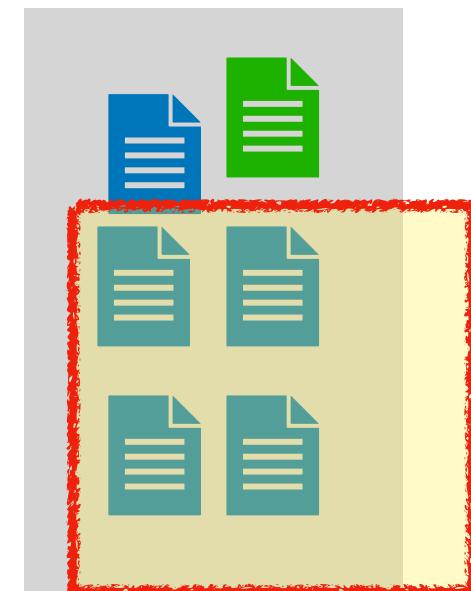


GET //uchicago/public/registrar/contact.cgi





```
#!/usr/local/bin/perl  
  
print "Content-Type: text/html\n\n";  
  
print "<html> <head>\n";  
print "<title>Hello, world!</title>";  
print "</head>\n";  
print "<body>\n";  
print "<h1>Hello, world!</h1>\n";  
print "</body> </html>\n";
```



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HTTP demo:

Chrome DevTools

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HTTP demo:

curl

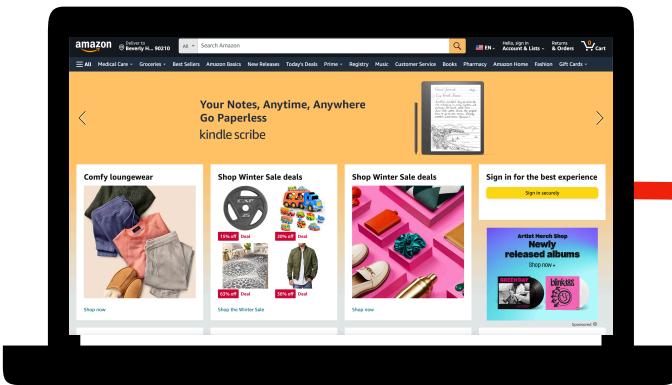
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HTTP demo:

hello_server.py

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Chrome, Safari, Firefox...



TLS



Apache, IIS, nginx...

**WEB
SERVER**



HTTP

*Java, C++, Python,
Ruby, JavaScript, C, ...*

*MySQL,
Postgresql,
DB2,
Oracle...*