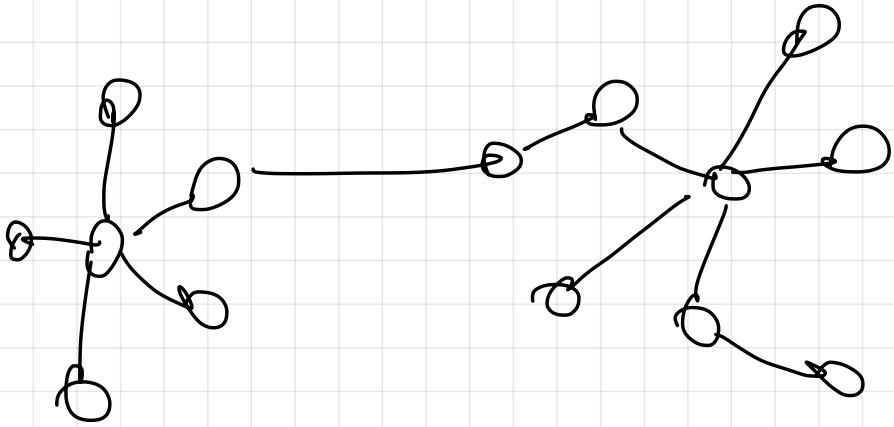




How Internet Works



Data Center | Hardware

physically built

Software

Device

Web Site

Web request

Server

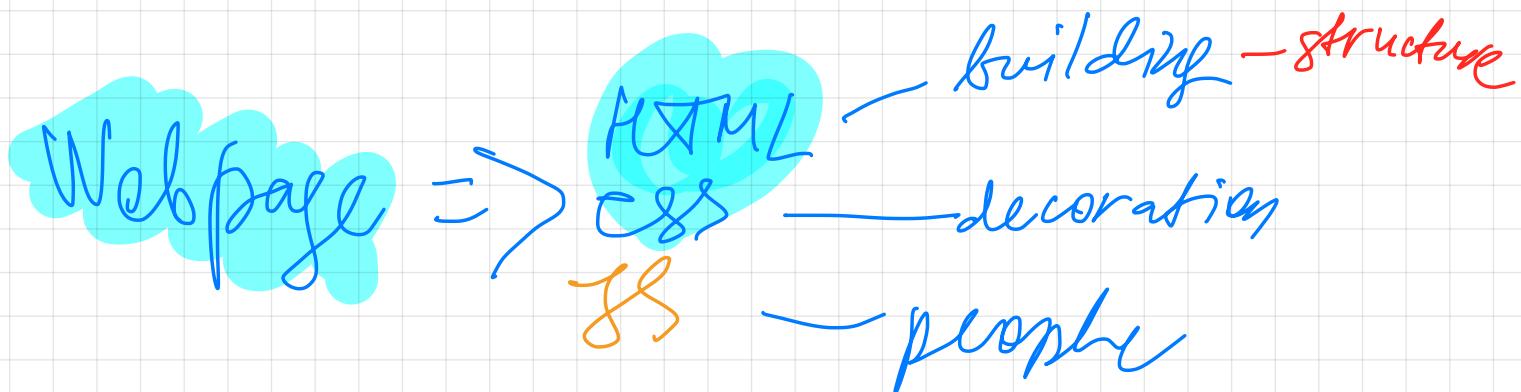
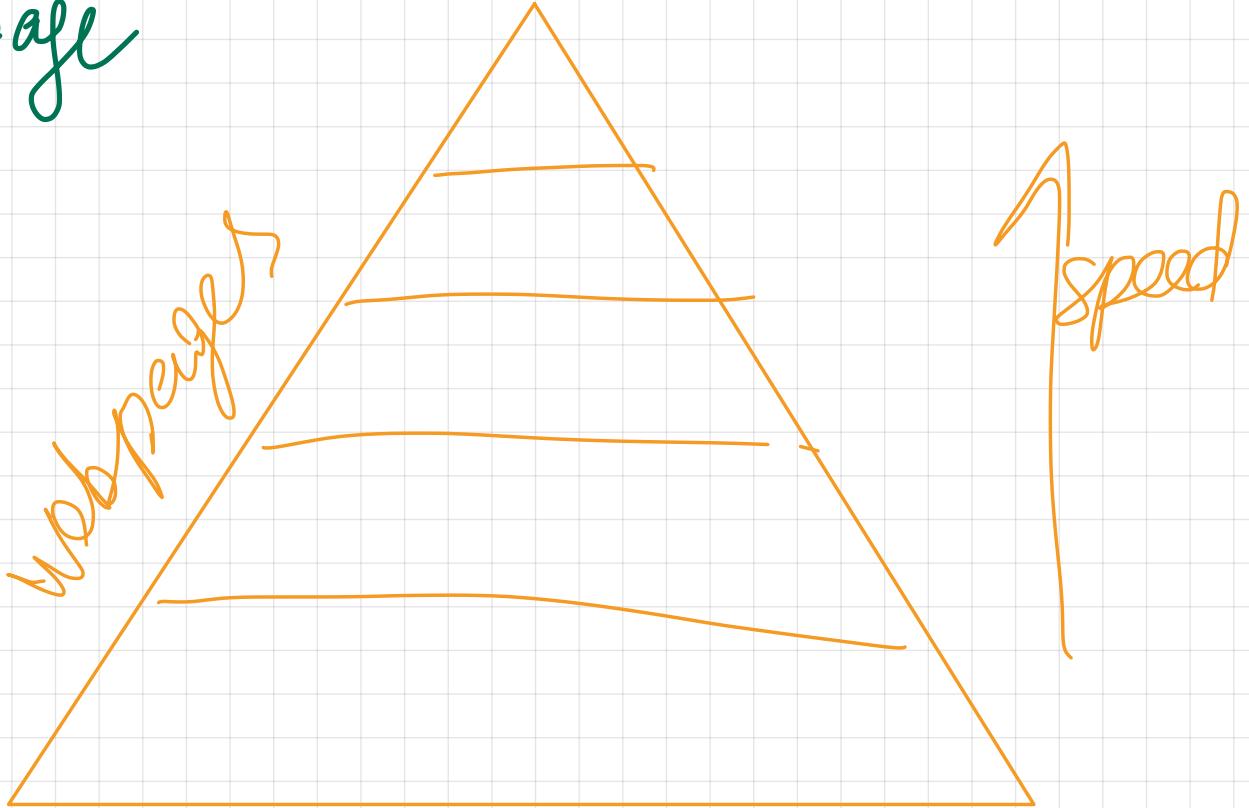


client → web server → website

(IMAGES }
text
video
audio

homepage

data →
link = click → website address

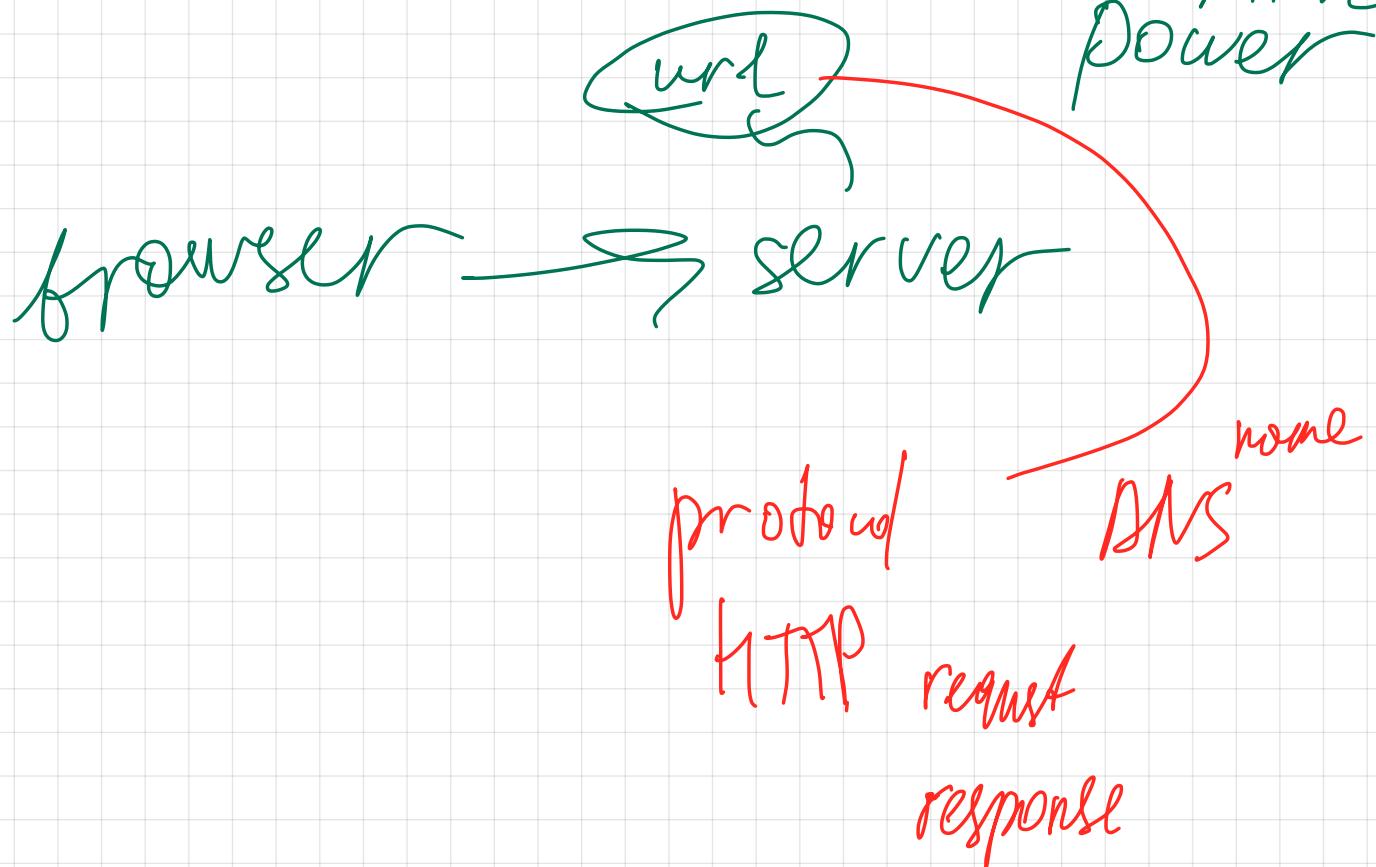


HTML hyper text markup language

CSS cascading style sheet style

JS programming language

ACTION
manipulate
Power



browser → server → database

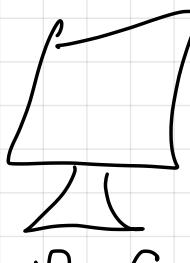
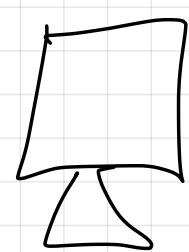
Web Hosting:

- shared — small website
 - VPS — physical server (expensive)
 - dedicated — only for you (more expensive)
 - cloud — no limit
 - higher cost
 - Scalable
- physical → virtual

IP Address:
216.168.173.2

Post System

DATA
transmission



IPv4

IPv6

X.X.X.X

6 groups

.....

DHCP
auto give

Receiver address

Destination address

My address

My IP address

TCP - arrive correctly

{ not lost
interrupted
right order

UDP - corrupt
tolerant
live-video

HTTPS

Get / HTTP 1.1
Path
versions

communication
transfer →

- Web pages
- images
- files

GET retrieve
POST send
PUT update
DELETE remove

header
host: example.com
date: ...

Status Code: 200 OK

404 not found

STATUS CODES:

- 1) Informational 100 - 199
- 2) Successful 200 - 299
- 3) Redirection 300 - 399
- 4) Client Error 400 - 499
- 5) Server Error 500 - 599

Information

Provisional

Inform Response

200 Continue

Success

200 OK

202 accepted

GET found
POST success send
PUT success update
DELETE success removed

200
201 created
202
204

Redirection

301 moved permanently

302 found

example.com → newexample.com

400 - Bad request server cannot process

401 - Unauthorized log in before

403 - Forbidden server is refusing to process

404 - Not found user is not admin

405 - Method Not Allowed

The web server doesn't support the HTTP method used

500 Internal Server Error unexpected error happened within server

502 Bad Gateway the web server received invalid response from Application Server

503 Service Unavailable the web server cannot process the request

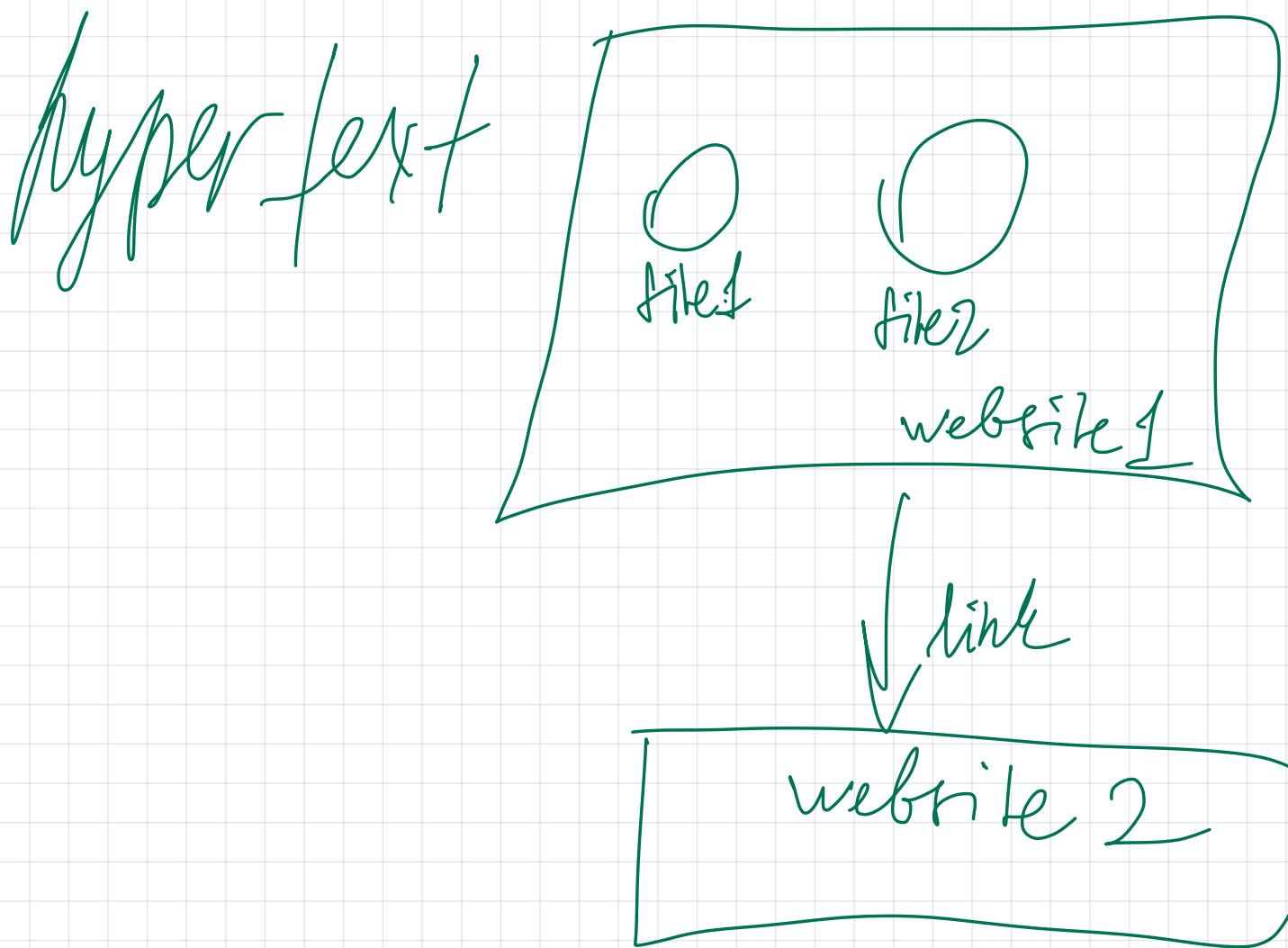
HTTP Secure

- card info
- secret code

http Response:

Head

body



Website - informative
web APP interactive

level of interaction
&
dynamic content

library

unopinioned

reusable piece of code

- can libraries work together?
- fewer errors
- compatibility

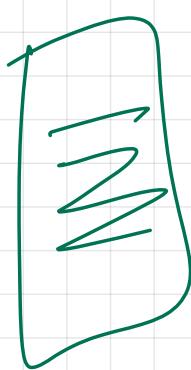
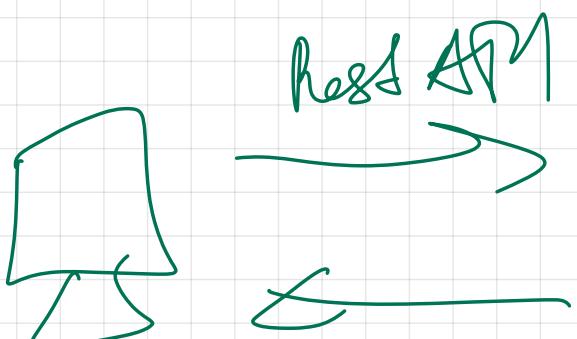
framework

opinionated

- structured constraints
- compatibility

Application Programming Interface

Bridge between different components



- Browser → Web + Services
- RESTful
- Sensor IoT → DOM API
- Geolocation API
- fetch API
- Canvas API
- History
- Web Storage

? /t = info

sensor API

((o))

((o))

get
put
post
delete

JSON

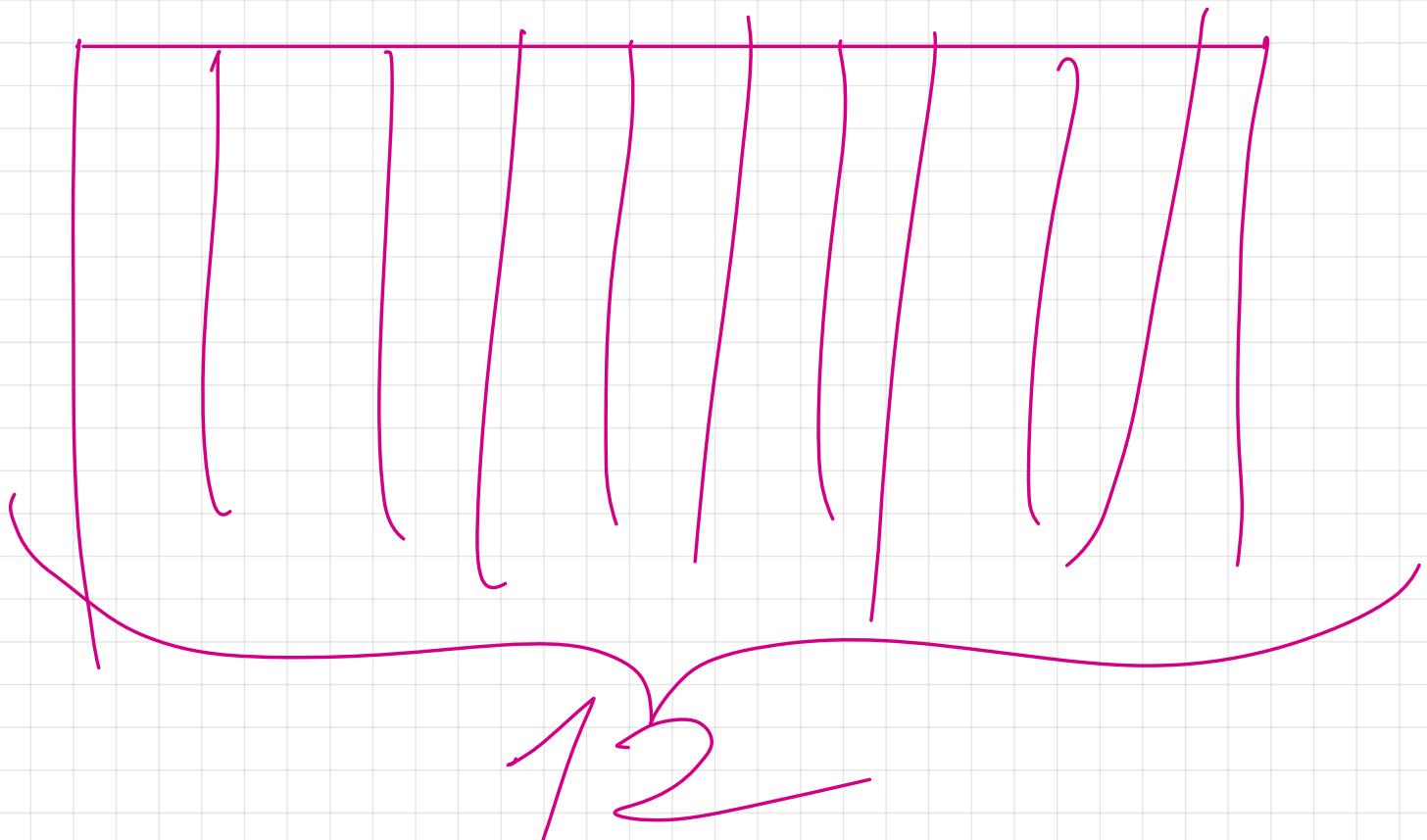
Integrated Development Environment

API | set of functions that an app. component or service provide

Bootstrap → infix

- 1). container
- 2). row
- 3). column

x s < 576px
sm - small ≥ 576px
md - medium ≥ 768px
lg → large ≥ 992px
xl - extra ≥ 1200px
xxl - extra large ≥ 1400px



primary
secondary
success
danger

course#2 JavaScript programming

const
~~var~~ says []

SCOPE
{ var
let } }



Why
→
cuz it's everywhere...

