

How the Web works

Web development I: Front-end engineering

The Internet vs. the Web

Internet

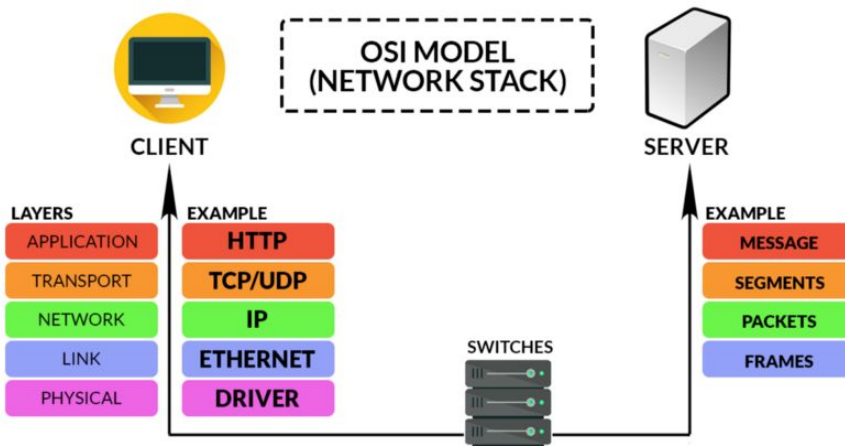
Global system of interconnected computers

Communicates via TCP/IP

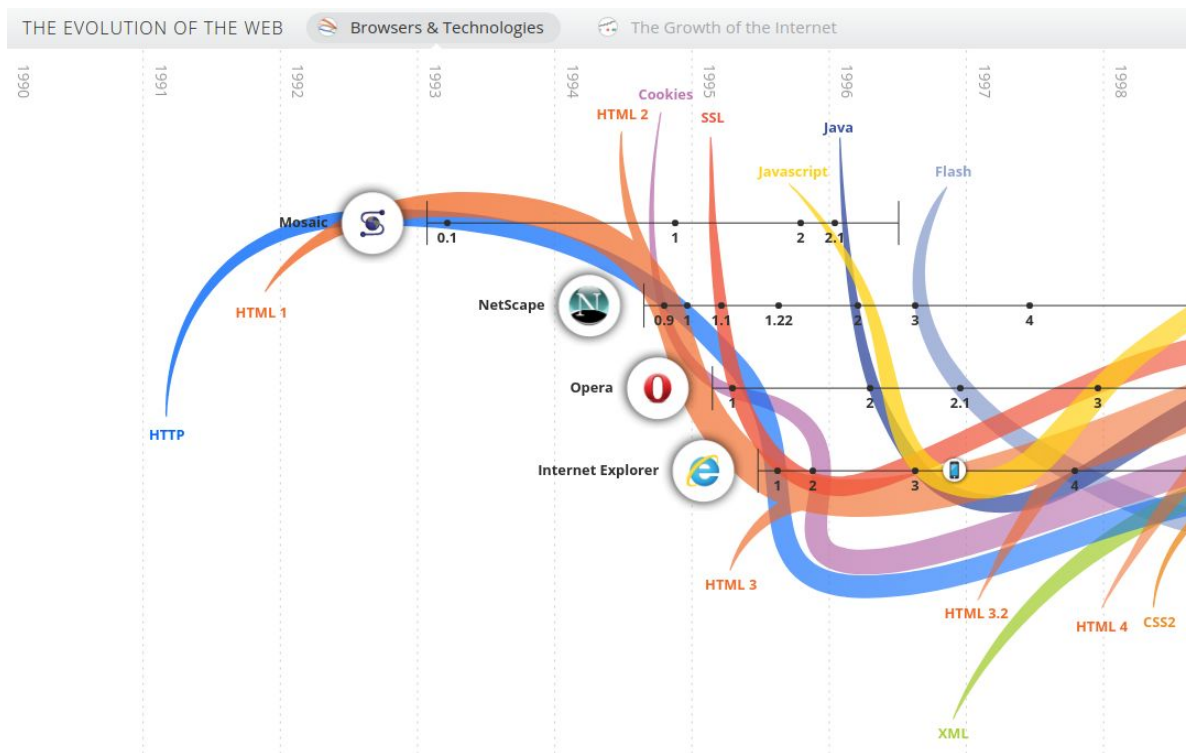
World Wide Web

Collection of websites and web apps

Communicates via HTTP(S)



A bit of history

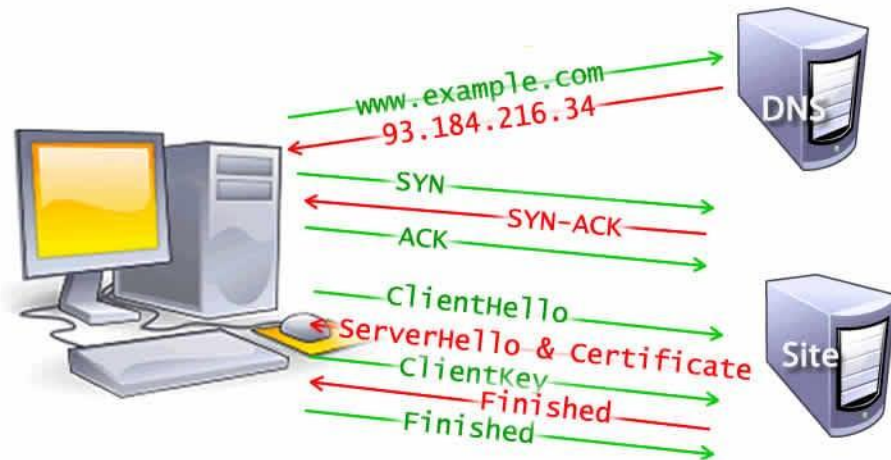
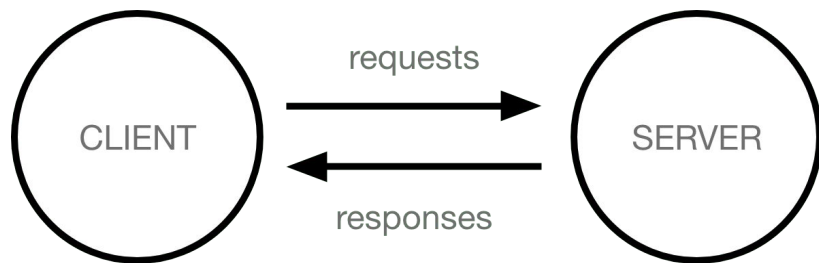


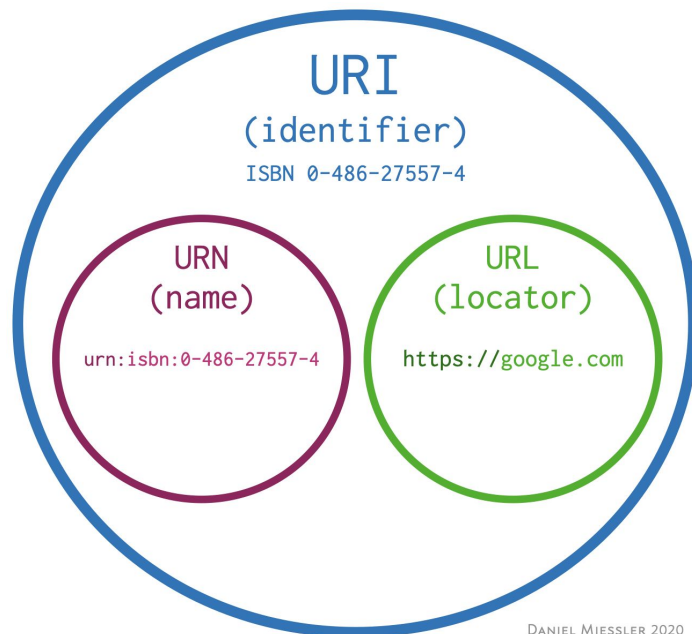
<http://www.evolutionoftheweb.com/>

Web browsers



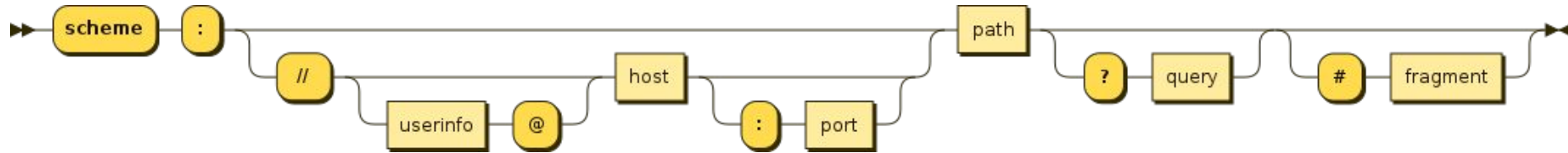
Serving up your information





What is in a URL?

URI = scheme:[//authority]path[?query][#fragment]



Uniform Resource Locators are defined in the [RFC 1738](https://tools.ietf.org/html/rfc1738)

What happens when you request a URL?

1. Your browser parses the URL

Is it a URL or a search term?

2. Your OS does a DNS lookup

Address to IP resolution

3. The server handles the request

Socket opening

Negotiation: handshake

Serving the page

4. Your browser parses the page

HTML tree construction

CSS interpretation

Page rendering

JS execution

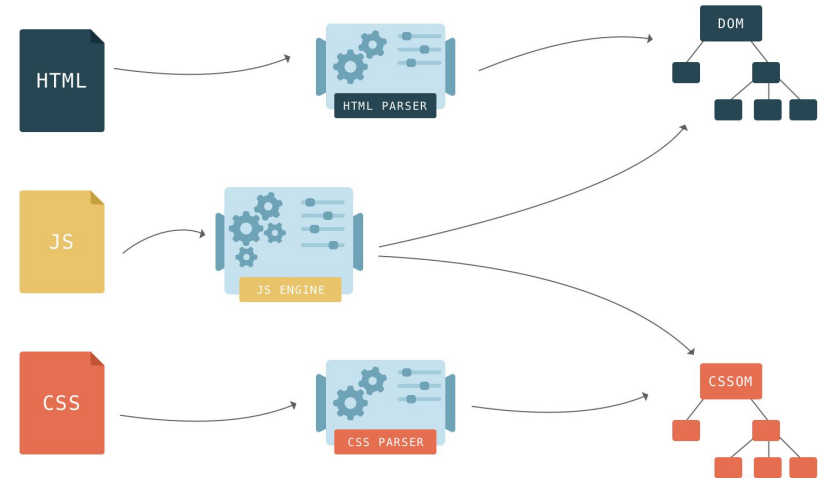
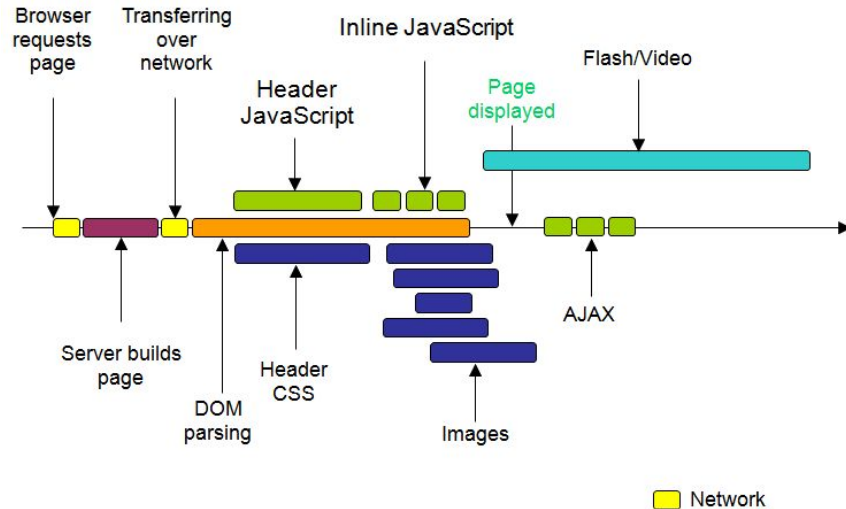
Some conventions

Last slash implied: `http://abc.com` → `http://abc.com/`

Default index files: `{index, default} . {htm, html}`

Directory listing (if no index file)

The anatomy of a web request



How browsers work

