How the Web works

Web development I: Front-end engineering
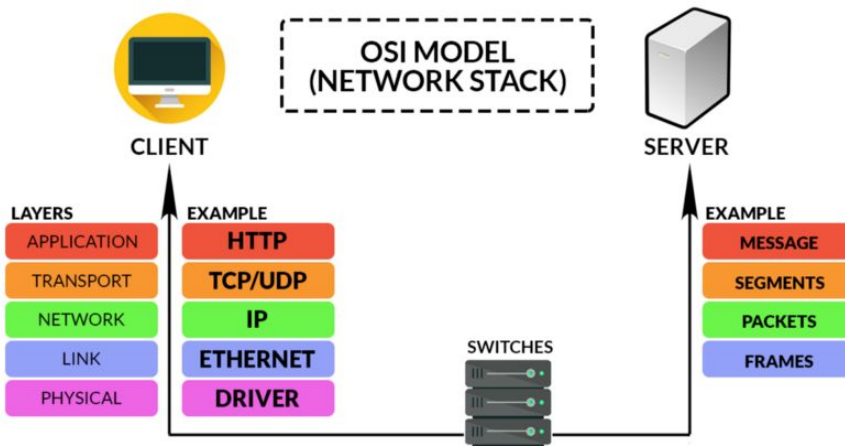
The Internet vs. the Web

Internet

Global system of interconnected computers

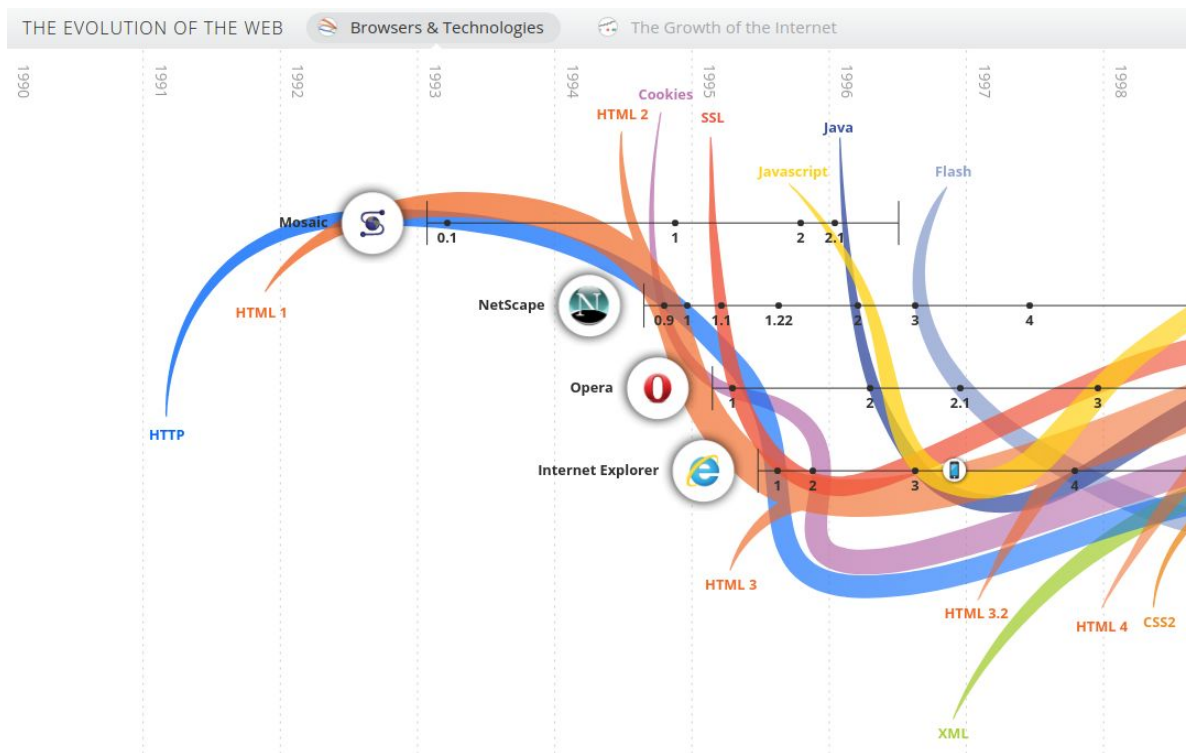Communicates via TCP/IP

World Wide Web

Collection of websites and web apps
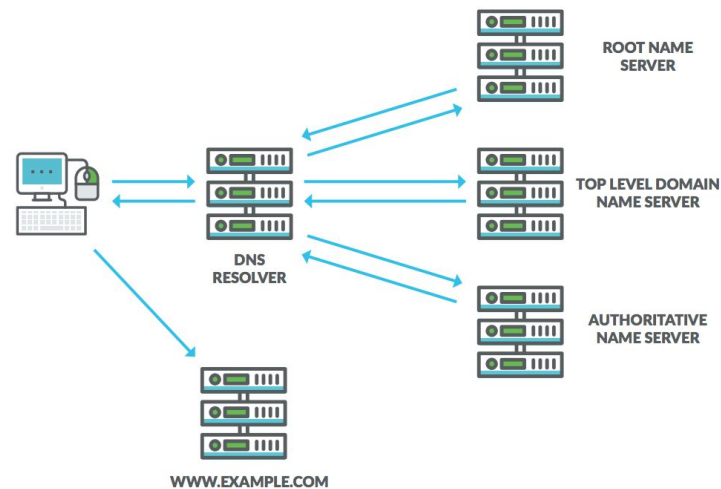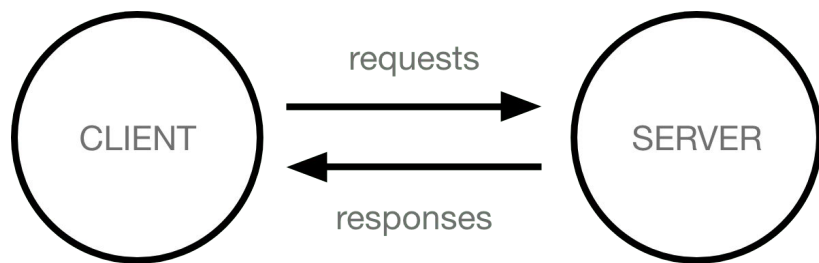
Communicates via HTTP(S)

A bit of history

http://www.evolutionoftheweb.com/

Web browsers

Serving up your information

URIs

URI
(identifier)
ISBN 0-486-27557-4

URN
(name)

urn:isbn:0-486-27557-4

URL
(locator)

https://google.com

Daniel Miessler 2020
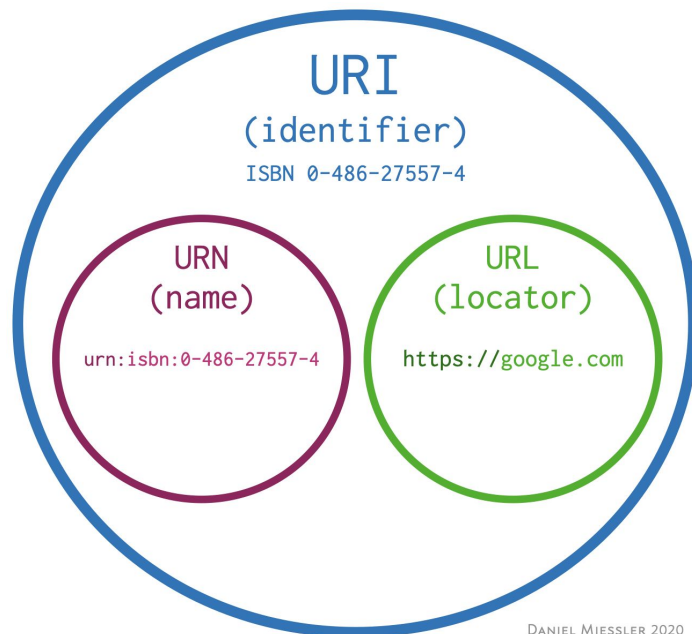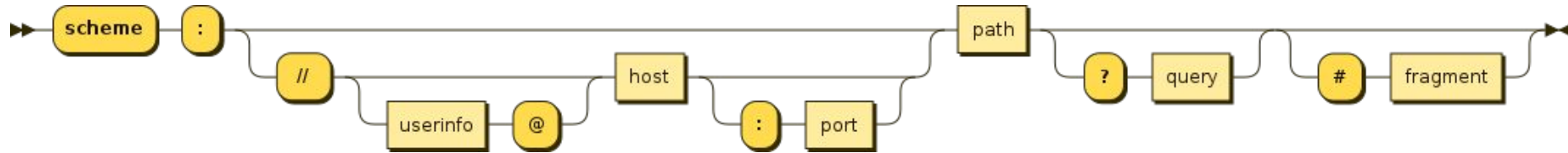
What is in a URL?

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

Uniform Resource Locators are defined in the RFC 1738

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: TLS handshake

   Serving the page

4. **Your browser parses the page**
   HTML tree construction

   CSS interpretation

   Page rendering

   JS execution

See https://github.com/alex/what-happens-when for more details

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