Web development - Intermediate

Agenda

Day 1(How the web works):

- How the web works
- Client-server architecture
- Evolution of web(WWW vs Internet)
- Set up Developer Environment

Day 2(Bootstrap, JQuery and DOM manipulation):

- Bootstrap
- DOM
- DOM selectors and events
- jQuery

Day 3(HTTP/JSON/AJAX +Async JS):

- HTTP/HTTPS
- JSON
- AJAX
- Asynchronous JavaScript

Agenda

Day 4(Frameworks):

- Introduction about frameworks and How the frameworks work under the hood?
- Introduction to React(state, props, component)

Day 5(APIs and microservices):

- How APIs work?
- Evolution of APIs
- Micro services and Web services

Day 6-7(Backend):

- Basics
- Introduction to NodeJs and ExpressJs

Day 1

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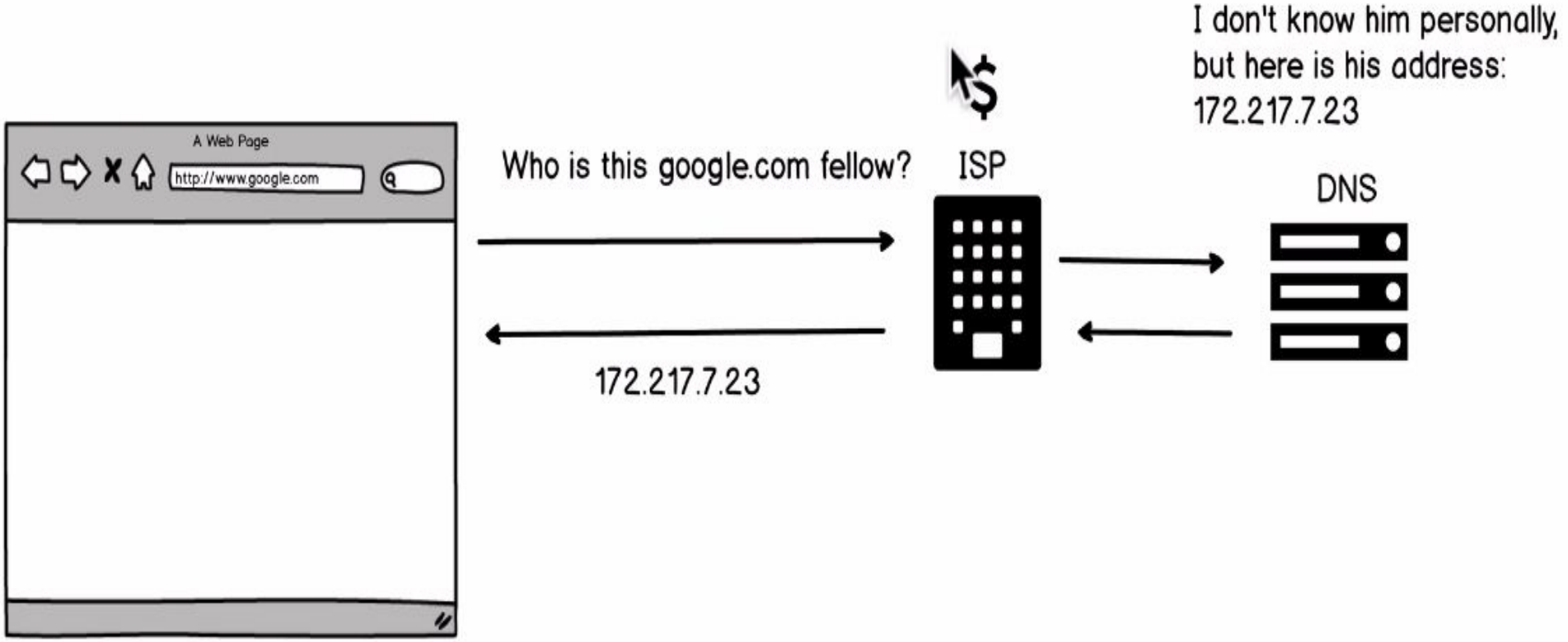
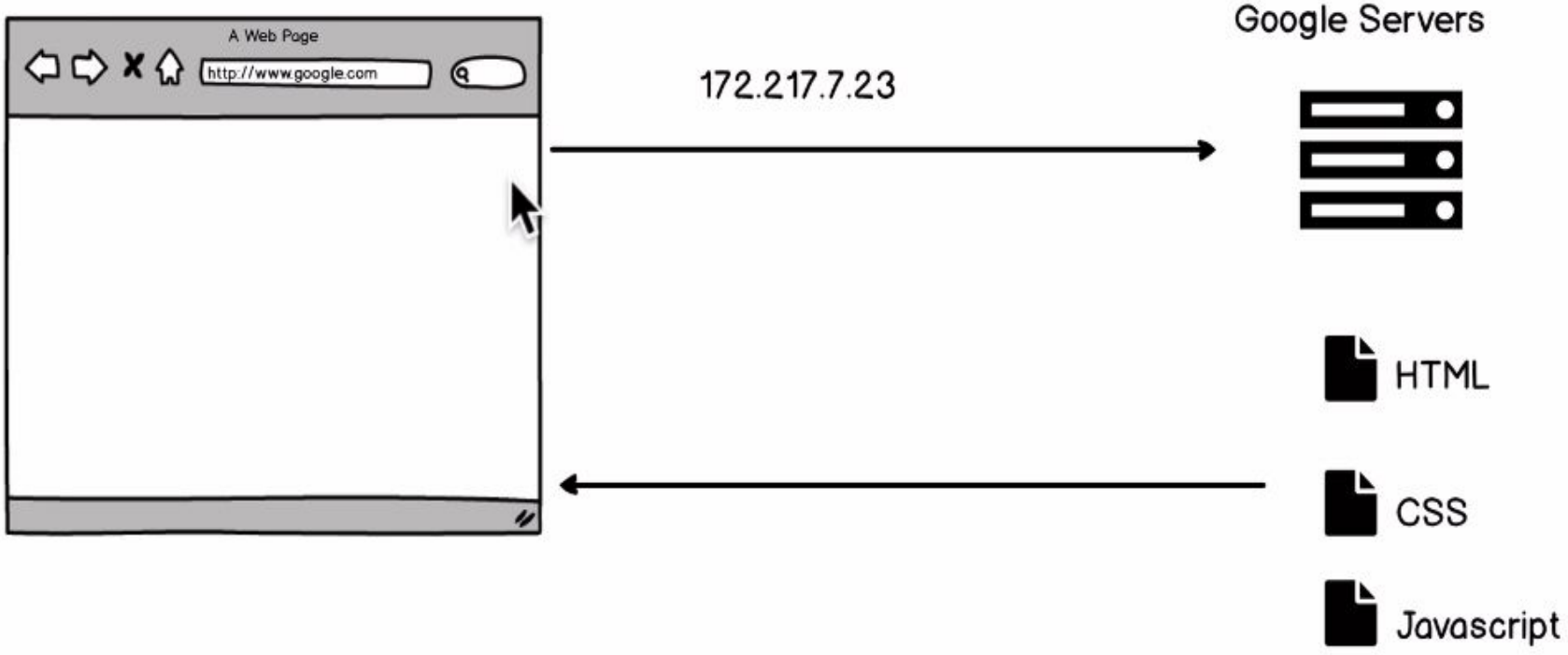

A Web Page
http://www.google.com
Who is this google.com fellow?
ISP
DNS
I don't know him personally,
but here is his address:
172.217.7.23
172.217.7.23


A Web Page
http://www.google.com
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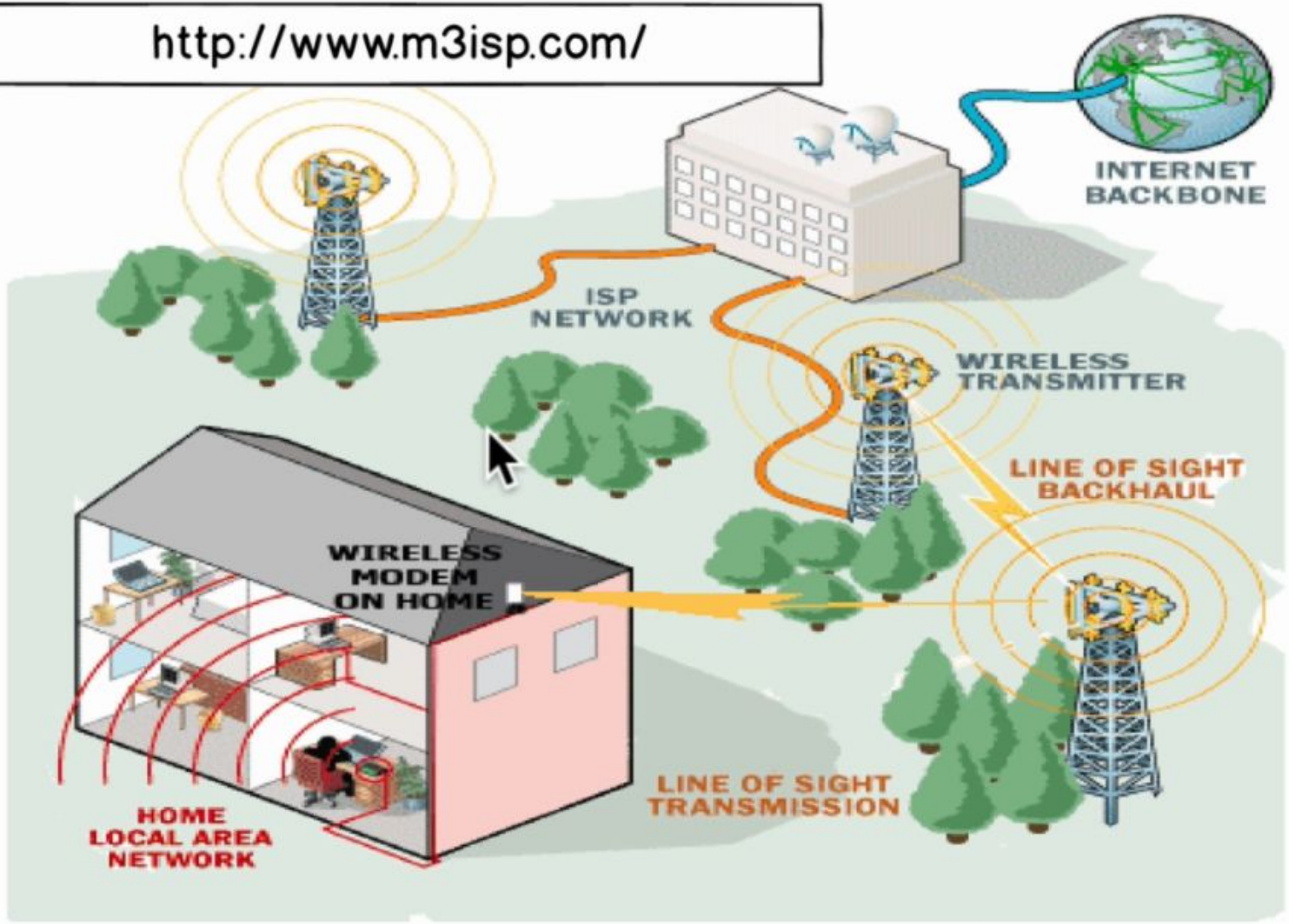
Google Servers
HTML
CSS
Javascript

http://www.m3isp.com/



Internet backbone

https://www.submarinecablemap.com

Client-server architecture

Client

The client is what the user interacts with. So “client-side” code is responsible for most of what a user actually sees. This includes:

1. Defining the **structure** of the web page
2. Setting the **look and feel** of the web page
3. Implementing a mechanism for responding to **user interactions** (clicking buttons, entering text, etc.)

The server

- “Listens” to the client/Collects and sends information across a network
- Interacts with the databases
- Types of servers: Database, web, file, mail, application, DNS, proxy, print etc.

Evolution of web

http://www.evolutionoftheweb.com/

WWW vs Internet

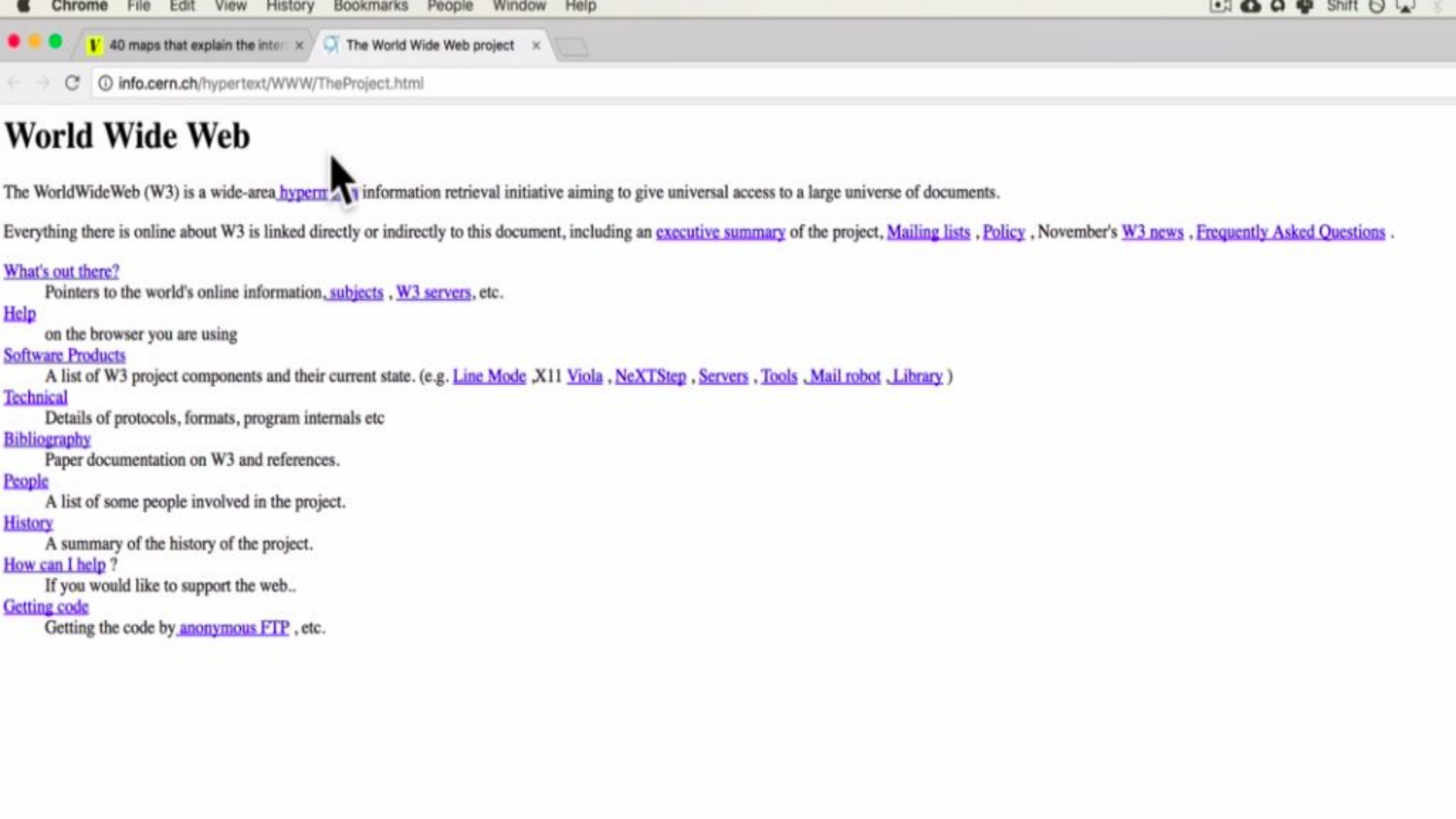
- Way of accessing information
- Information sharing mode built on top of internet
- Uses HTTP to transfer data
- Uses browsers to access web documents called web pages linked via hyperlinks
- Provides dynamic networks via different methodologies and protocols

- Networks of networks; networking infrastructure
- Allows communication among computers, as long as they are connected via internet
- Can use any protocol
- Does not utilize browsers, structure on which WWW is based
- Provides the structure

Maps that explain the Internet(Further reading)

https://www.vox.com/a/internet-maps

Tim Berners Lee



World Wide Web

The WorldWideWeb (W3) is a wide-area hyperm information retrieval initiative aiming to give universal access to a large universe of documents.

Everything there is online about W3 is linked directly or indirectly to this document, including an executive summary of the project, Mailing lists , Policy , November's W3 news , Frequently Asked Questions .

What's out there?
Pointers to the world's online information, subjects , W3 servers, etc.

Help
on the browser you are using

Software Products
A list of W3 project components and their current state. (e.g. Line Mode ,X11 Viola , NeXTStep , Servers , Tools , Mail robot , Library)

Technical
Details of protocols, formats, program internals etc

Bibliography
Paper documentation on W3 and references.

People
A list of some people involved in the project.

History
A summary of the history of the project.

How can I help ?
If you would like to support the web..

Getting code
Getting the code by anonymous FTP , etc.

Have a look

http://info.cern.ch/hypertext/WWW/TheProject.html

Set up developer environment

- Install VS Code (https://code.visualstudio.com/)
- Install Node and NPM (https://docs.npmjs.com/downloading-and-installing-node-js-and-npm)
- Customize the terminal

Thank you!