Web Fundamentals

Communications Lab
NYUAD Interactive Media
Spring 2017

What is the **WEB**?

World Wide Web

The World Wide Web (WWW) is an information space where documents and other web resources are identified by Uniform Resource Locators URLs, interlinked by hypertext links, and can be accessed via the Internet.[1]. English scientist Tim Berners-Lee invented the World Wide Web in 1989. He wrote the first web browser computer program in 1990 while employed at CERN in Switzerland.[2][3]

The World Wide Web has been central to the development of the Information Age and is the primary tool billions of people use to interact on the Internet.[4][5][6]

A DEFINITION

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HTTP

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Hyper **T**ext **T**ransfer **P**rotocol

So how does it work?

CLIENT

SERVER

WEB PROTOCOL

CLIENT

SERVER

Request

WEB PROTOCOL

CLIENT   **SERVER**

Request →

← Response

WEB PROTOCOL

CLIENT   **SERVER**

Request

Response

FRONTEND   **HTTP**   BACKEND

WEB PROTOCOL

CLIENT   **SERVER**

Request

Response

FRONTEND   **HTTP**   BACKEND
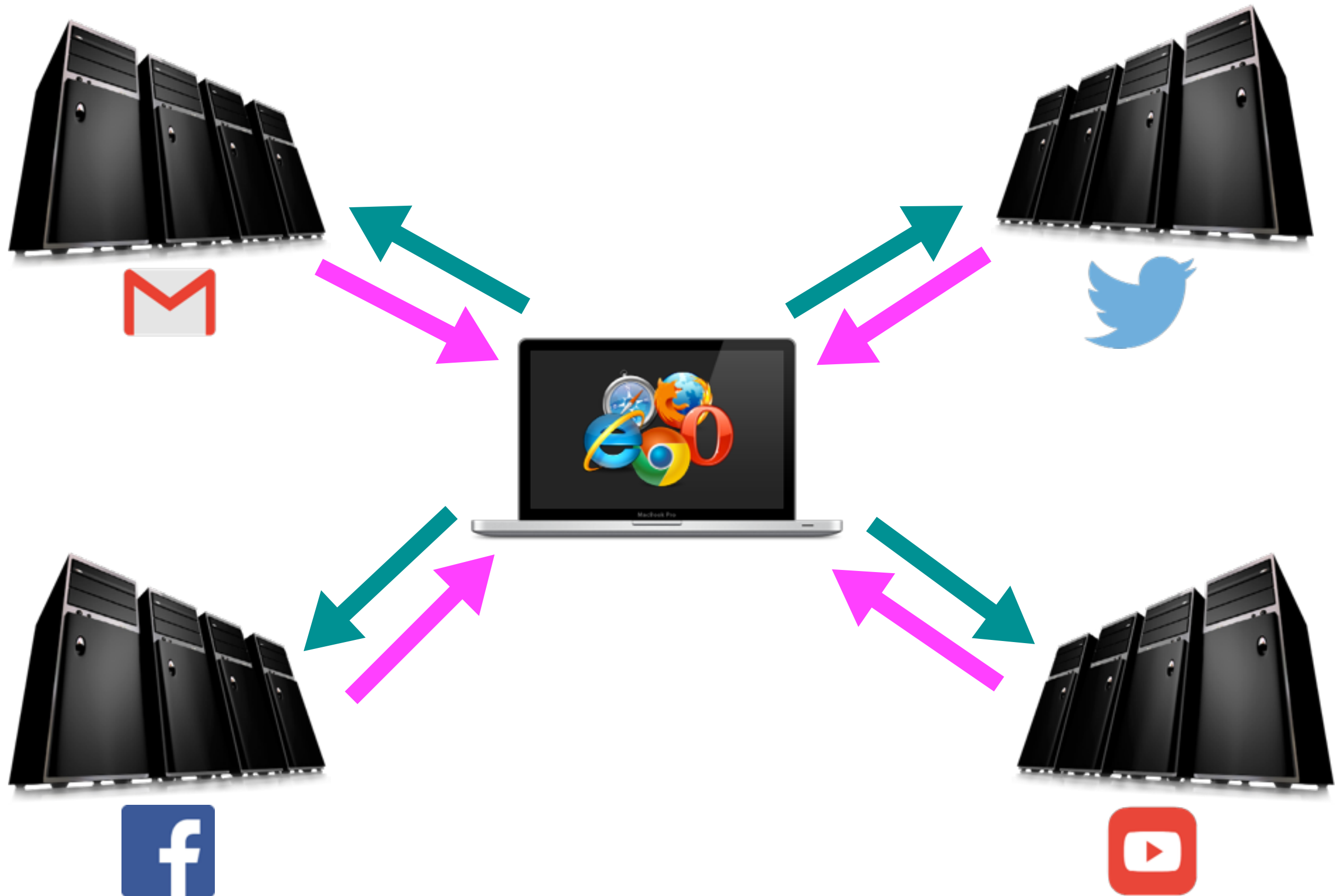
SOME FILES   **GET/POST**   ALL THE FILES!!!

WEB PROTOCOL

CLIENT **SERVER**

Request

Response

FRONTEND **HTTP** BACKEND

SOME FILES **GET/POST** ALL THE FILES!!!

"I want my Facebook"

HTTP RESPONSE

"I want my Facebook"

"Here you go"
index.html
style.css
scripts.js

HTTP RESPONSE

"I want my Facebook"

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index.html
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THE FRONTEND FILES

HTML
A Markup Language

■ ■ ■ ■ ■ ■

CONTENT
What info is on the page

THE FRONTEND FILES

HTML
A Markup Language

CONTENT
What info is on the page

CSS
A Markup Language

STYLE
How the info looks

THE FRONTEND FILES

HTML
A Markup Language

CONTENT
What info is on the page

CSS
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JAVASCRIPT
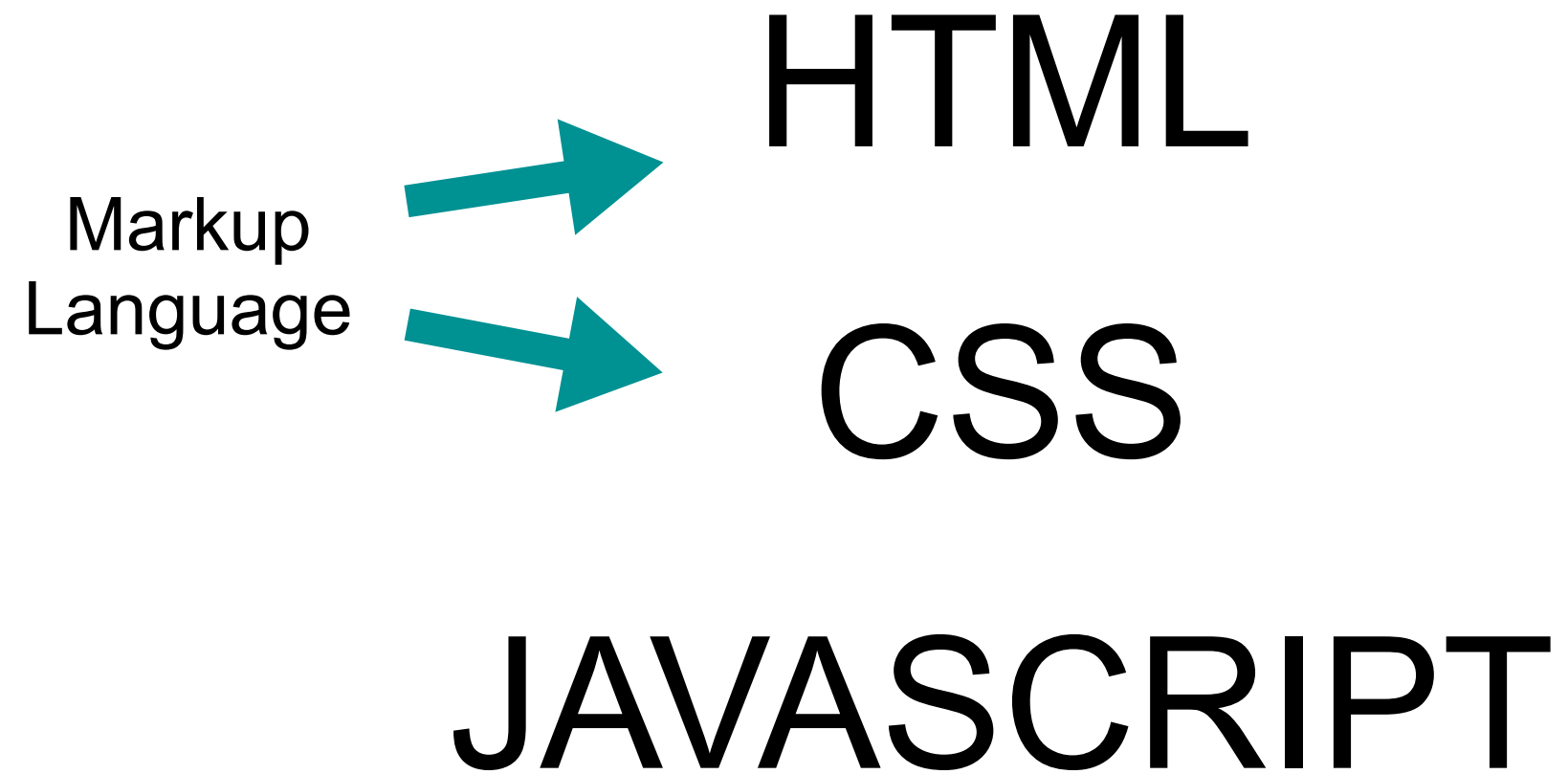A Programming Language
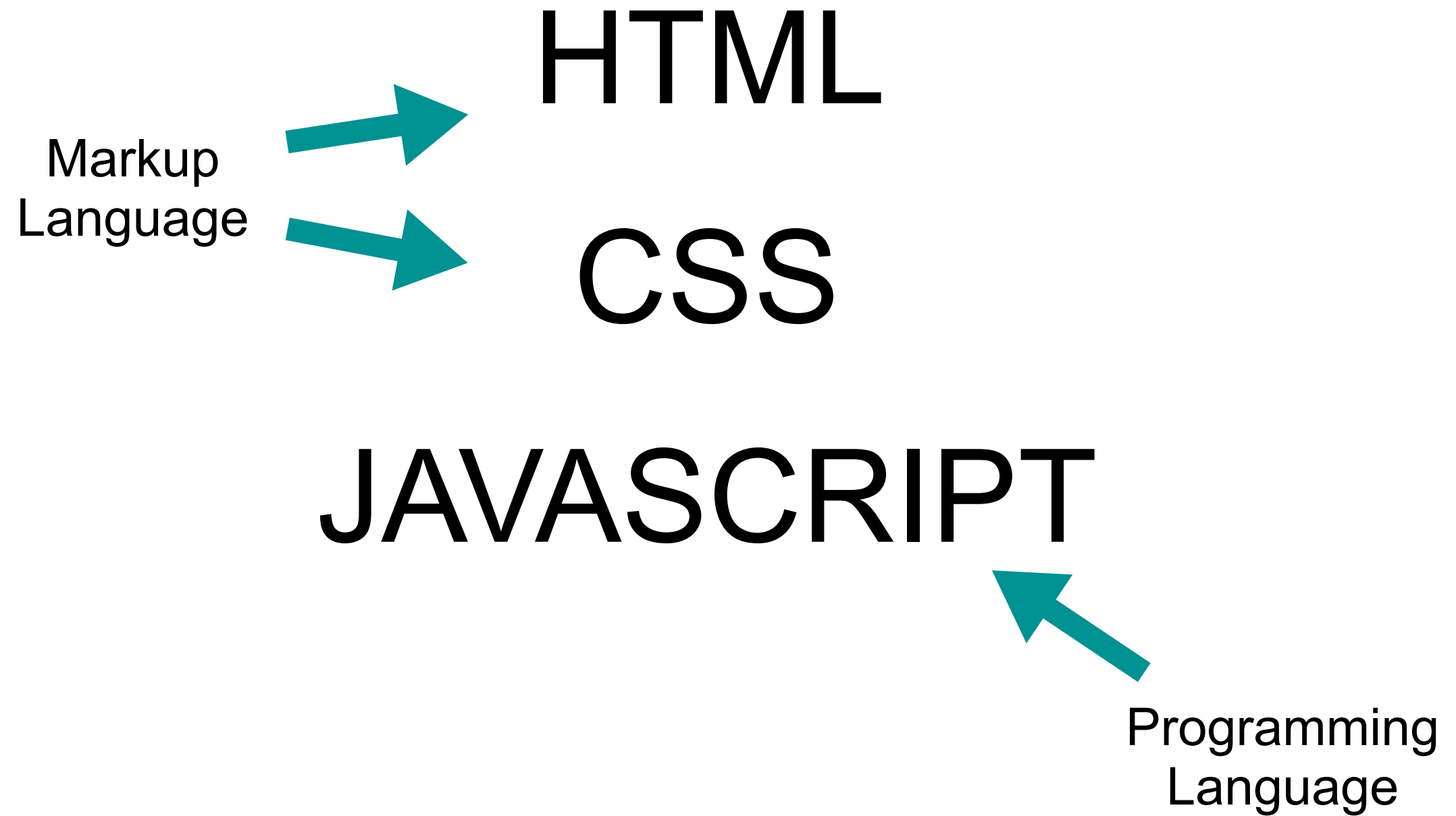
INTERACTIVITY
How the info behaves

HTML

CSS

JAVASCRIPT

HTML

Markup
Language

CSS

JAVASCRIPT

HTML

Markup
Language

CSS

JAVASCRIPT

Programming
Language

index.html

style.css

scripts.js

HTML

Hyper Text Markup Language

<div> Hello! </div>

<div> Hello! </div>

HTML Tag

<div> Hello! </div>

Opening Tag   Closing Tag

<div> Hello! </div>

Element Content
Inner HTML

Element

<div> Hello! </div>

Tag

```
<html>
      <head>
              <title>WebPage</title>
      </head>
      <body>
              <div>Hello!</div>
      </body>
</html>
```
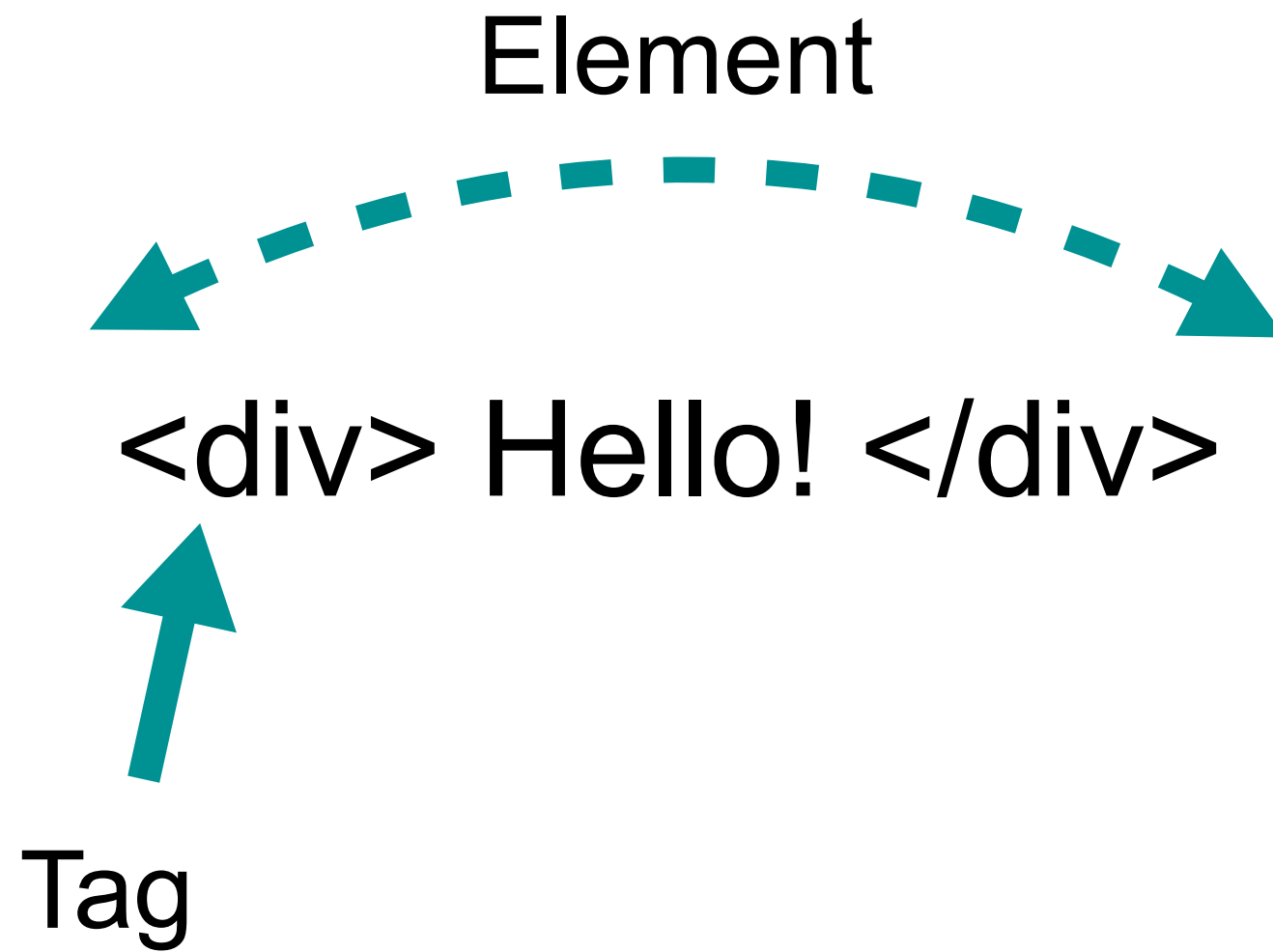
Super Simple Site

CSS

Cascading Style Sheets

```
selector {
    property: value;
}
```

CSS SYNTAX

The HTML element
(could be a tag, class, id)

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selector {
    property: value;

}

The type of property
(e.g "color")

The value of the property
(e.g "red")

```css
div {
    color: red;
}
```

```css
div {
    color: red;
}
.special {
    color: rgb(255,0,0);
}
```

```css
div {
    color: red;
}
.special {
    color: rgb(255,0,0);
}
#very-special {
    color: #FF0000;
}
```

body,div,p   specific elements

.class   a group of items on the page

#id   a unique item on the page

Super Simple Stylish Site