# Intro to Web Development
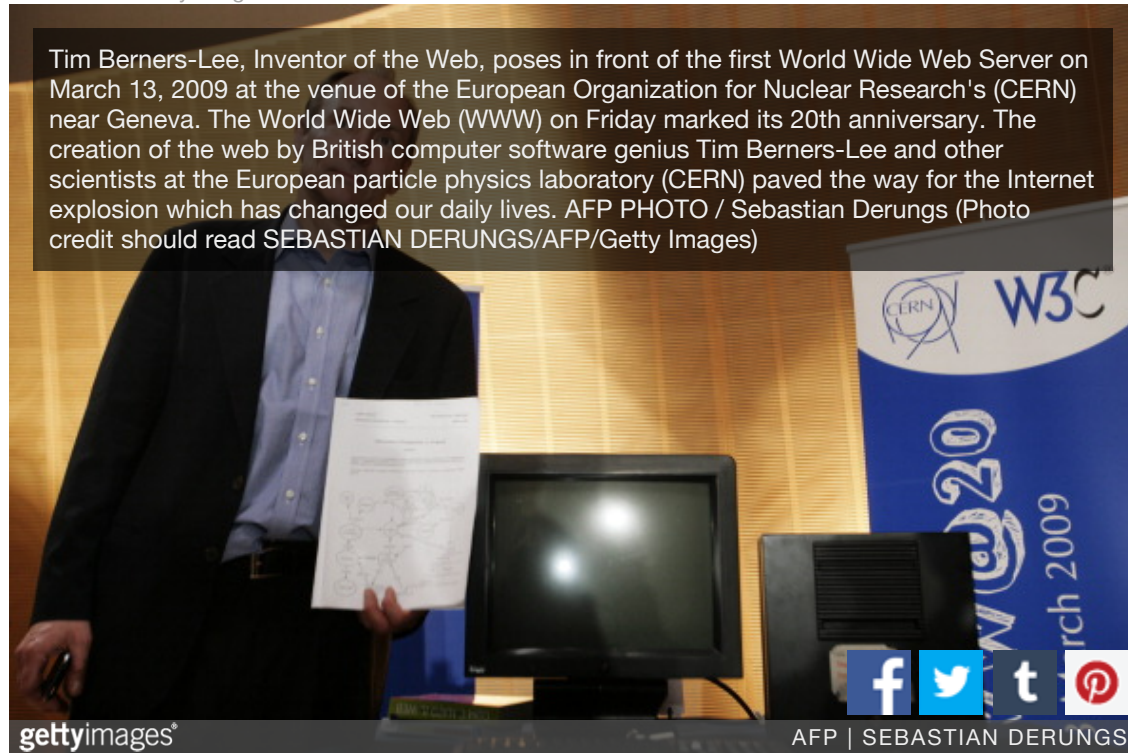
By Tony Perez

# About the Web

# 1980 Tim Bernes-Lee of CERN proposed a better way for researchers there to share and read documents
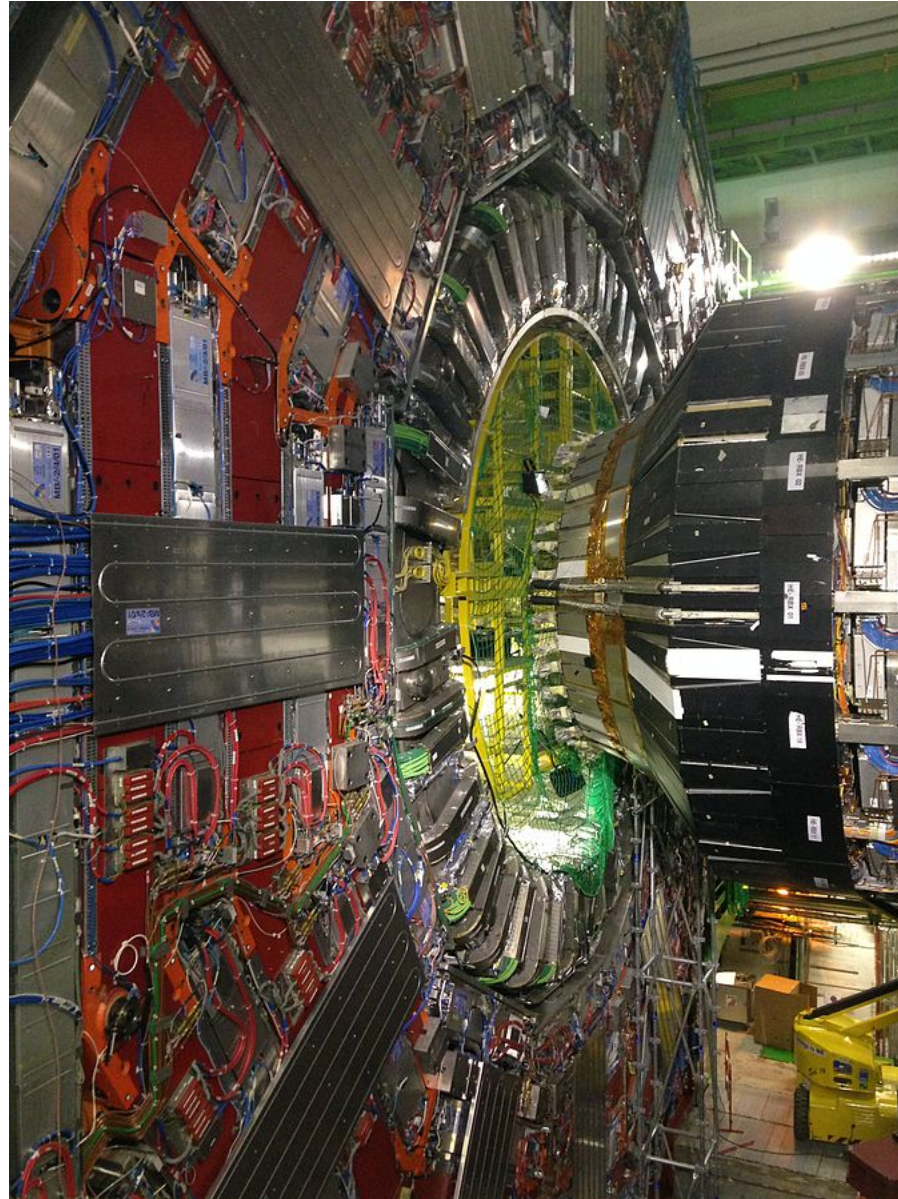
Tim Berners-Lee, Inventor of the Web, poses in front of the first World Wide Web Server on March 13, 2009 at the venue of the European Organization for Nuclear Research's (CERN) near Geneva. The World Wide Web (WWW) on Friday marked its 20th anniversary. The creation of the web by British computer software genius Tim Berners-Lee and other scientists at the European particle physics laboratory (CERN) paved the way for the Internet explosion which has changed our daily lives. AFP PHOTO / Sebastian Derungs (Photo credit should read SEBASTIAN DERUNGS/AFP/Getty Images)

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# The people from CERN bult the Large Hadron Collider

In 1984, he built ENQUIRE for CERN, which was made up of Cards (Documents) and Hyperlinks (which connected the Documents)

```
Design
       Hyperlink
Card -----------> Card
     \
      \ Hyperlink          Hyperlink
       `----------> Card -----------> Card
```

In 1990 Tim Berners-Lee and Robert Cailliau proposed the creation of the **World Wide Web**

# What is HTML?

HTML stands for **H**yper**T**ext **M**arkup **L**anguage

Hypertext

Overcoming the contraints of written text. *Interactive.*

Markup Language

A way to literally "Mark Up" a document to specify attributes, like different font sizes, lists, links to other webpages, and image.

# HTML is writtin in text files

```
File example:

     _____
    ||| |        |
    |--           |
    |  -----      |        index.html
    |  ---        |          ^       ^
    |  ----       |          |       |
     --------     |          |        -- File extension
         Name of the file    (tells the browser the file contains HTML)
```
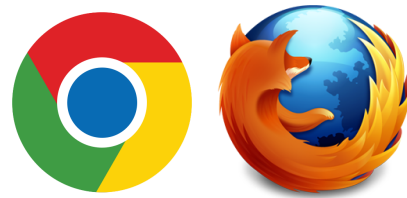
A web browser is basically "HTML Readers"

They understand how to read HTML and display it for you



Hopefully they all display the same thing

# Layout

What content is going to go on your webpage?

**1 COLUMN WIDE**

**2 COLUMN, LEFT**

**2 COLUMN, RIGHT**

**3 COLUMN, LEFT**

**3 COLUMN, RIGHT**

**3 COLUMN, CENTER**

# Semantic Elements

A semantic element clearly describes its meaning to both the browser and the developer.

# Example

Non-semantic elements: <div> and <span> - Tells nothing about its content.

Semantic elements: <form>, <table>, and <img> - Clearly defines its content.

# HTML5 brought new semantic tags

Before: `<div class="header">`

After: `<header>`

- <header>
- <nav>
- <main>
- <section>
- <article>
- <aside>
- <footer>
- <details>
- <figure>
- <figcaption>
- <mark>
- <summary>
- <time>

# Writing HTML

# Simple HTML File

```html
<!DOCTYPE html>
<html>
    <head>
        <meta charset="UTF-8">
        <title>Title of the document</title>
    </head>
    <body>
        <p>Content of the document......</p>
    </body>
</html>
```

Here we use HTML tags, which have corresponding opening and closing versions.

`<h1>Title</h1>`

# HTML Tags

```
<html> <--- Open tag
    <head>
        <title>Title of the document</title>
    </head>
    <body>
        <h1>Welcome</h1>
    </body>
</html> <--- Close Tag
```

Header tags define your content hierarchy

Higher heading numbers mean the content that appears between the headings is less important than lower numbers.

It goes from `<h1>..<h6>`

# h1. Header 1

## h2. Header 2

### h3. Header 3

#### h4. Header 4

##### h5. Header 5

###### h6. Header 6

Use paragraph <p></p> tags for non-heading text

This doesn't have to be an actual pragraph of text.

# Unordered Lists

```
<h3>Projcets</h3>
<ul>
    <li>Project 1</li>
    <li>Project 2</li>
</ul>
```

## Projcets

- Project 1
- Project 2

# Ordered List

```html
<h3>Ordered List</h3>
<ol>
    <li>One is smaller than...</li>
    <li>Two is smaller than...</li>
    <li>Three!</li>
</ol>
```

## Ordered List

1. One is smaller than...
2. Two is smaller than...
3. Three!

# Nesting tags

```
<p>Hello this is <strong>bold</strong></p>
<p>Hello this is <em>italic</em></p>
```

Hello this is **bold**

Hello this is *italic*

The <p> tag it the parent and the <em> within that is the children.

# Links

```
<a href="http://google.com">Google</a>
```

Google

| Tag | Description |
| --- | --- |
| <b> | Defines **bold** text |
| <em> | Defines *emphasized* text |
| <i> | Defines *italic* text |
| <strong> | Defines **important** text |

| Tag | Description |
| --- | --- |
| <small> | Defines $_{smaller}$ text |
| <sub> | Defines $_{subscripted}$ text |
| <sup> | Defines $^{superscripted}$ text |
| <ins> | Defines <u>inserted</u> text |
| <del> | Defines ~~deleted~~ text |
| <mark> | Defines marked/ highlighted text |

# CSS

# CSS stands for **C**ascading **S**tyle **S**heets

```css
body {
    background-color: #d0e4fe;
}
h1 {
    color: orange;
    text-align: center;
}
p {
    font-family: "Times New Roman";
    font-size: 20px;
}
```

# Inline CSS

```
<p>This is <span style="color: red">red</span></p>
```

This is red

```
<p>This is <span style="color: red">red</span></p>
```

Here we use the `style` attribute to define something in
<span>

There are many CSS properties

Some of the typical ones are setting the color, font-size, background color, *Font*

# Bootstrap

# Resources

- Jen's Links
- Code Academy
- Bootstrap

# THE END