

Web Design

Intro to HTML

Outline

- History
- Websites
- HTML

Overview

History

- The Internet started as ARPANET, created by the US Department of Defense in the 1960s-70s
- Email created in 1971

History (cont.)

- World Wide Web (WWW) created in 1989-91 by Tim Berners-Lee
- Popular browsers released:
 - Netscape in 1994
 - Internet Explorer in 1995
- Amazon.com opened in 1995
- Google started in 1996
- Wikipedia launched in 2001
- MySpace opened in 2003
- Facebook started in 2004

Website

- A website is a collection of **web pages**
- Uses a common **domain name**
- Published by a **web server**

Web Server

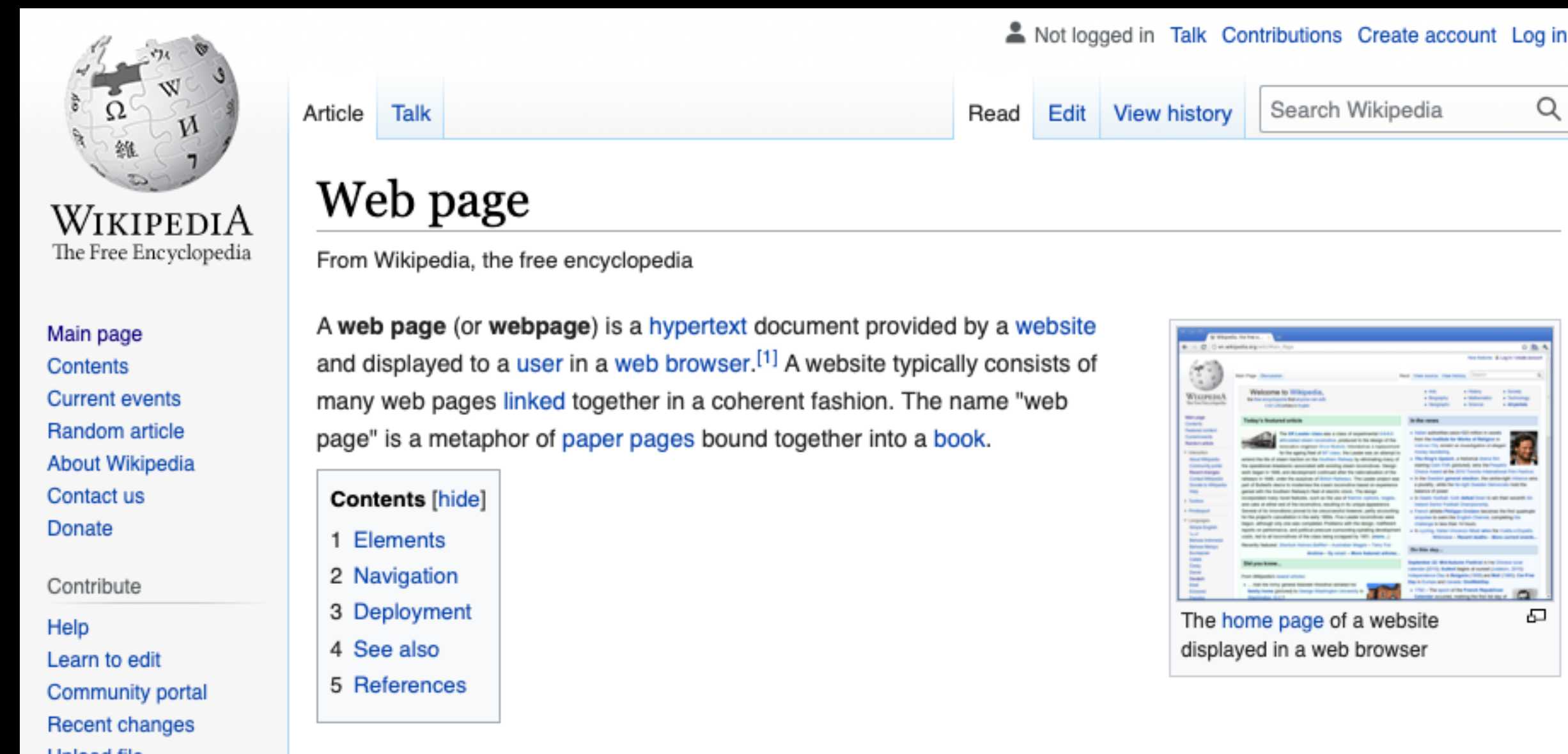
- A web server is a computer and the software running on that computer that accept HTTP requests from other computers (clients)

Domain Name

- A domain name is an identifier that represents a resource (web server)
- Is translated to an IP address

Web Page

- A web page is a hypertext document (written in **HTML**) that can be displayed by a web browser



Hypertext Markup Language (HTML)

- Markup language, first released in 1993
- Defines the content and structure of web pages
- One HTML file defines one web page
- Syntax composed of tags and elements (we'll get to the details in a bit)

Intro to HTML

HTML Elements

Overview

- Everything in HTML is an element
- Elements allow us to organize content
- Elements begin with an opening tag, (optionally) have attributes, have content, and end with a closing tag

```
<div>  
  content  
</div>
```

```
<div>  
  <span>one</span>  
  <span>two</span>  
</div>
```

- Some tags do not have content and are self-closing

```
<br/>
```

HTML Elements

Tags

- Generic tags: div, span
- Headings: h1, h2, ..., h6
- Paragraphs: p
- Styled: abbr, em (i), strong (b), u, code, pre, sub, sup
- Separators: br, hr
- Links: a
- Buttons: button
- Lists: ol, ul, li
- Media: img, video, audio

HTML Elements

Example

```
<body>
  <h1>Web Design</h1>
  <h2>Day 1</h2>

  <p>
    This is a paragraph about the first day of class.
  </p>

  <p>
    <a href="http://example.com/day-2">Click to see the second day of class</a>
  </p>
</body>
```

Web Design

Day 1

This is a paragraph about the first day of class.

[Click to see the second day of class](http://example.com/day-2)

HTML Elements

Example

Web Design

Day 1

This is a paragraph about the first day of class.

[Click to see the second day of class](#)

HTML Structure

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>My Site</title>
</head>
<body>
  <div>
    Page content
  </div>
</body>
</html>
```

Document Type Declaration

- Tells the client what type of document this is and how to interpret it
- Goes at the beginning of the document

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>My Site</title>
</head>
<body>
  <div>
    Page content
  </div>
</body>
</html>
```

HTML Element

- The <html> element contains all HTML for the document
- Everything (except doctype) goes in here

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>My Site</title>
</head>
<body>
  <div>
    Page content
  </div>
</body>
</html>
```

HTML <head>

- The <head> element provides information about the page
- Not displayed on the page
- <title> element

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>My Site</title>
</head>
<body>
  <div>
    Page content
  </div>
</body>
</html>
```

HTML <body>

- The <body> element holds the page content and is rendered in the browser

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>My Site</title>
</head>
<body>
  <div>
    Page content
  </div>
</body>
</html>
```

Hello World

Creating Your Own Web Page

- Create a web page with the contents Hello World
- Try out creating other elements
 - Heading
 - List
 - Paragraph with italic, bold, and/or underlined text

More HTML

The <a> Element

Intro

- The <a> (anchor) tag allows us to reference other objects (websites, HTML documents, parts of the same HTML document, and more)
- Creates links

```
Check out <a href="http://example.com">this website</a>!
```

Check out [this website!](http://example.com)

The `<a>` Element

In Depth

- External sites
 - must use an absolute path (including the http(s) scheme)
 - example: `<a href="https://example.com">Example</a>`
- Other pages
 - can use absolute paths or relative paths
 - examples: `<a href="/pages/page2.html">page 2</a>`, `<a href="page2.html">page 2</a>`
- Parts of the same page
 - can use just the URL fragment
 - example: `<a href="#section-2">section 2</a>`
- Opening email
 - example: `<a href="mailto:email@example.com">email me</a>`

Try It

Links & Multiple Pages

- Create another HTML file in the same folder and give it some content
- Create links between the two pages
- Create a link at the top of one of the pages that links to a heading further down the page
- Note: the home/main page file of a site should be called index.html

Media

Media

- Images
 - ``
- Videos
 - `<video src="movie.mp4" type="video/mp4" controls/>`
- Audio
 - `<audio src="audio.mp3" controls/>`

Try It

- Add an image, video, and/or audio to your page