CSE-465
Web Programming

The Basics of
HTML

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Why should we be interested in web system?

iPod Touch

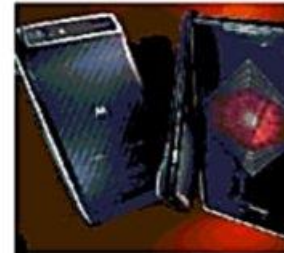iPad

NetBook

Handheld Projector
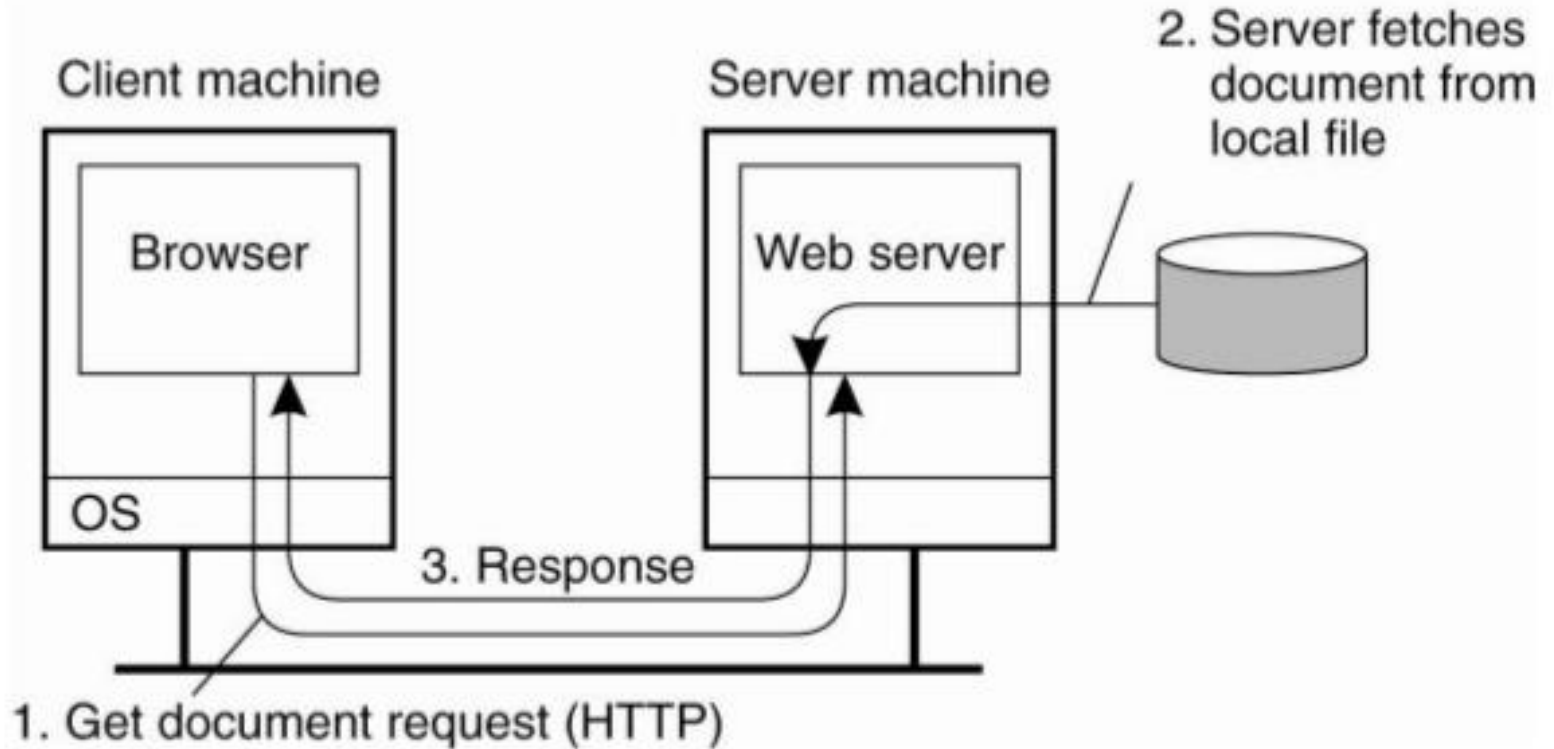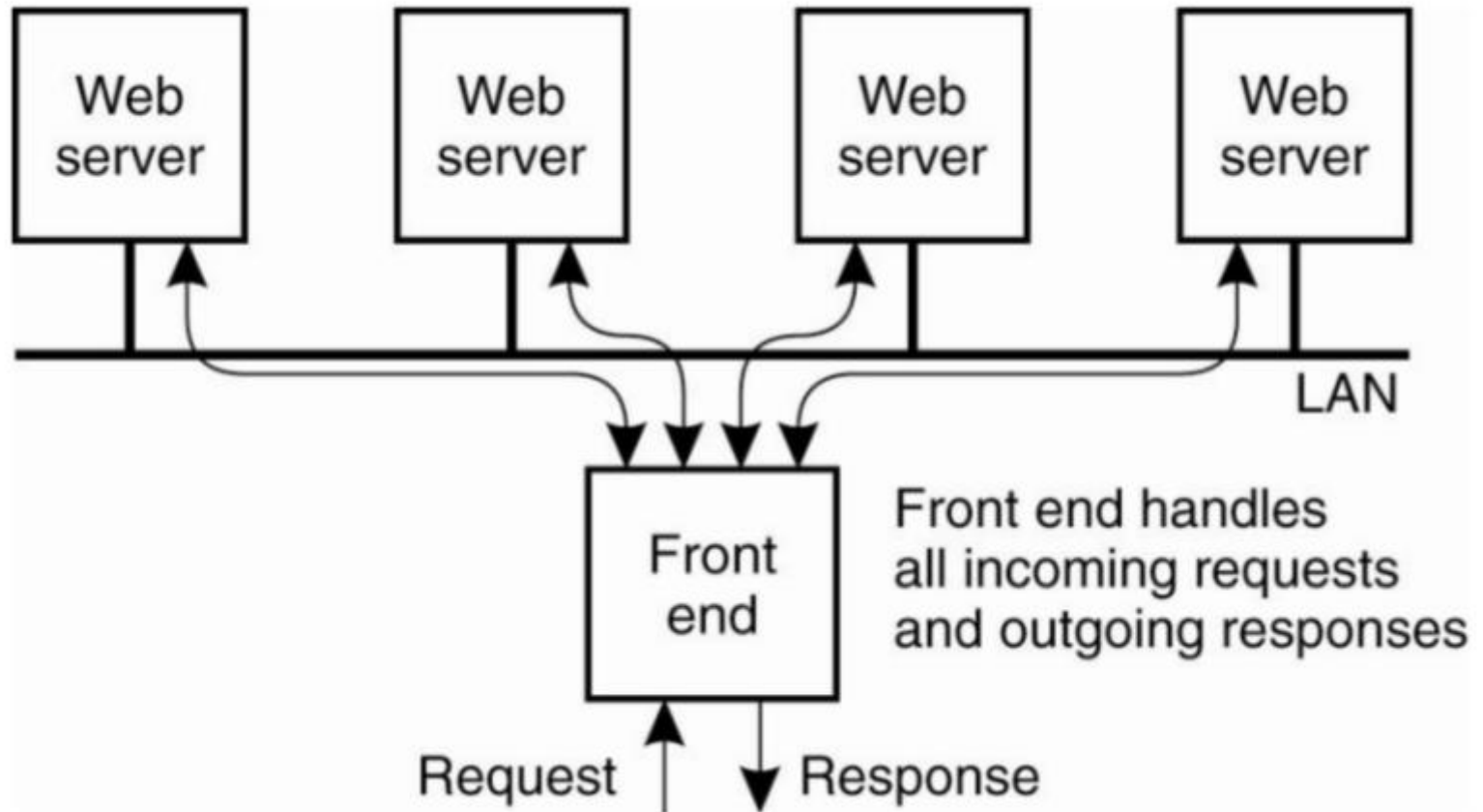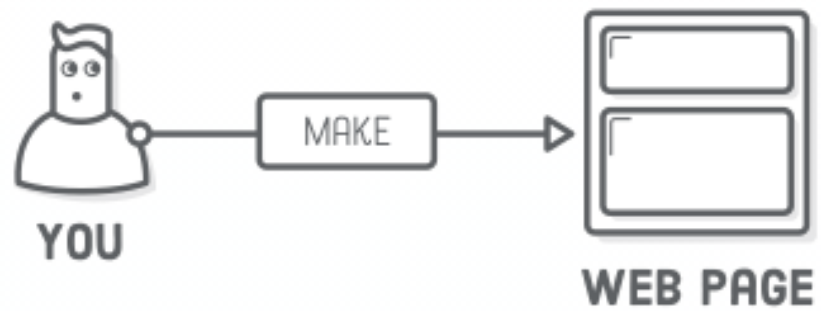
PDA

SmartPen

Tablet e-reader

Aver

Droid Rzar

Traditional Web-based System

Client machine

Browser

OS

Server machine

Web server

2. Server fetches document from local file

3. Response

1. Get document request (HTTP)

Scalable Web Server

Front end handles all incoming requests and outgoing responses
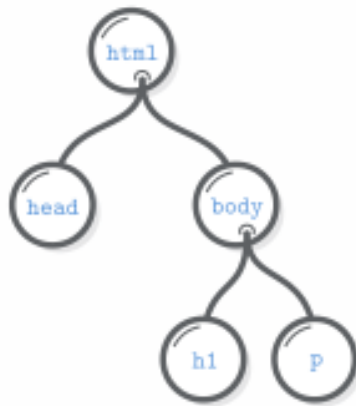
Goal

Language of the Internet

- HTML is for adding meaning to raw content by marking it up.
- CSS is for formatting that marked up content.
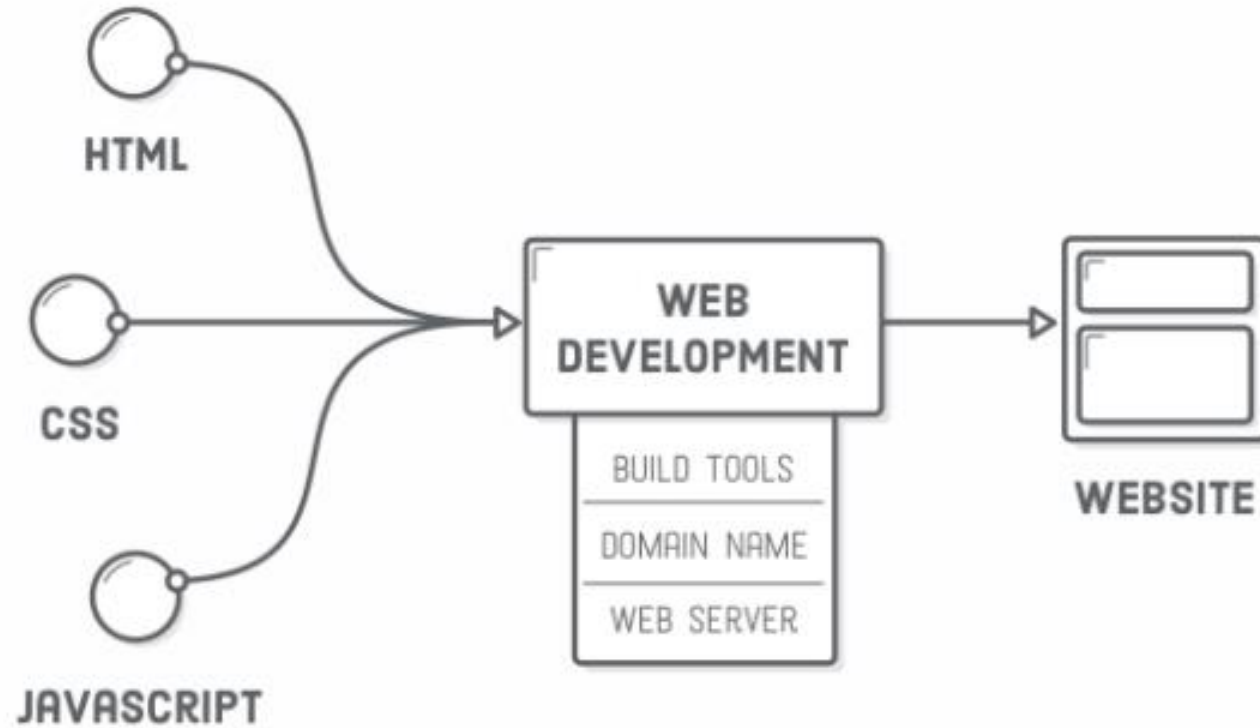- JavaScript is for making that content and formatting interactive.

HTML   CSS   JAVASCRIPT

Web Development Checklist

HTML

CSS

JAVASCRIPT

WEB DEVELOPMENT

BUILD TOOLS

DOMAIN NAME

WEB SERVER

WEBSITE

Web Publishing

HTML Boilerplate Code

```html
<!DOCTYPE html>

<html>

   <head>

      <!-- Metadata goes here -->

   </head>

   <body>

      <!-- Content goes here -->

   </body>

</html>
```

Contents

WEB PAGE

<HEAD>

| PAGE TITLE |
| CSS LINKS |
| OTHER ABSTRACT THINGS |

<BODY>

| HEADINGS |
| PARAGRAPHS |
| OTHER THINGS YOU CAN SEE |

Page Titles

```
<!DOCTYPE html>

<html>

  <head>

    <title>Interneting Is Easy!</title>

  </head>

  <body>

    <!-- Content goes here -->

  </body>

</html>
```
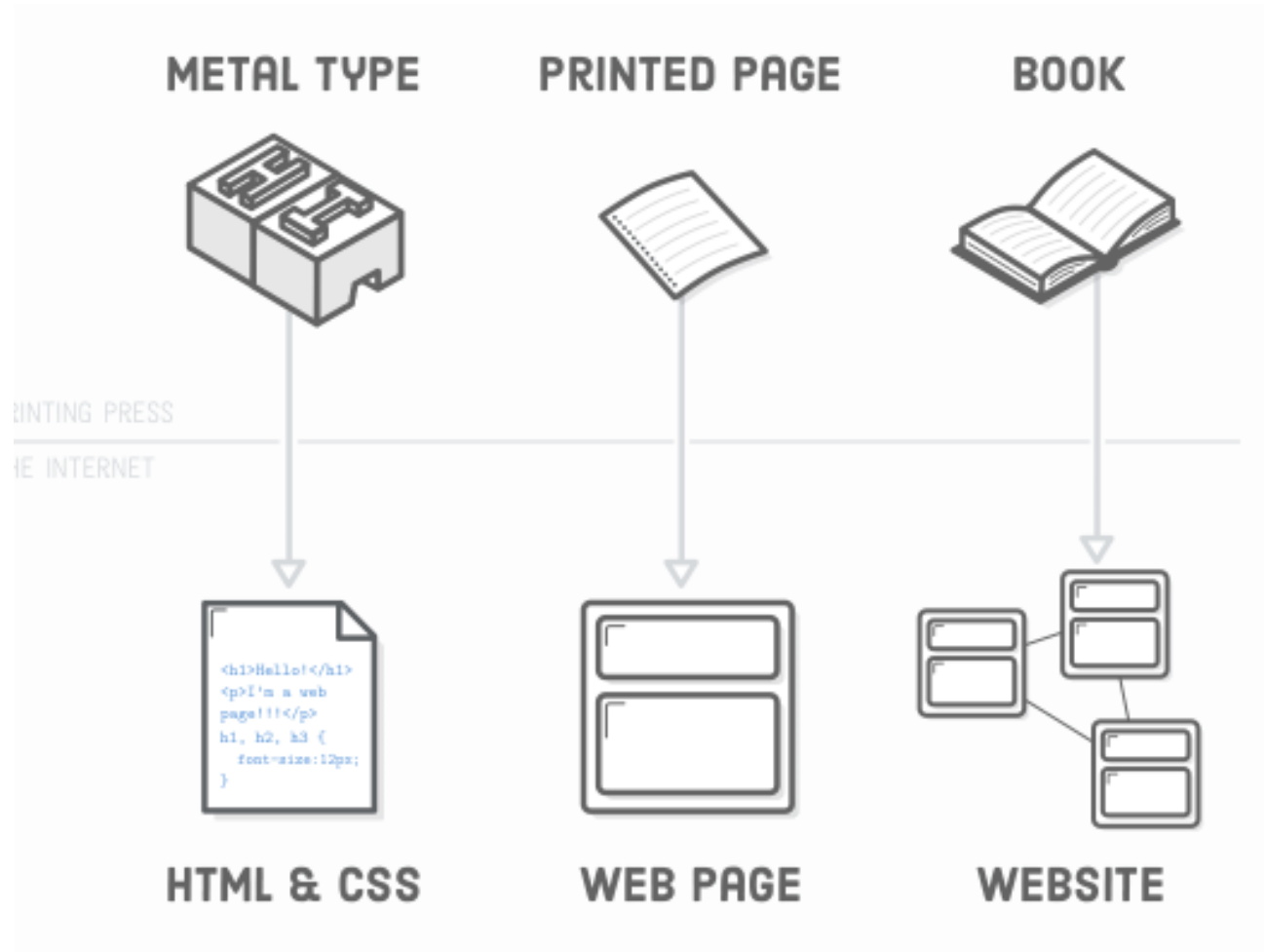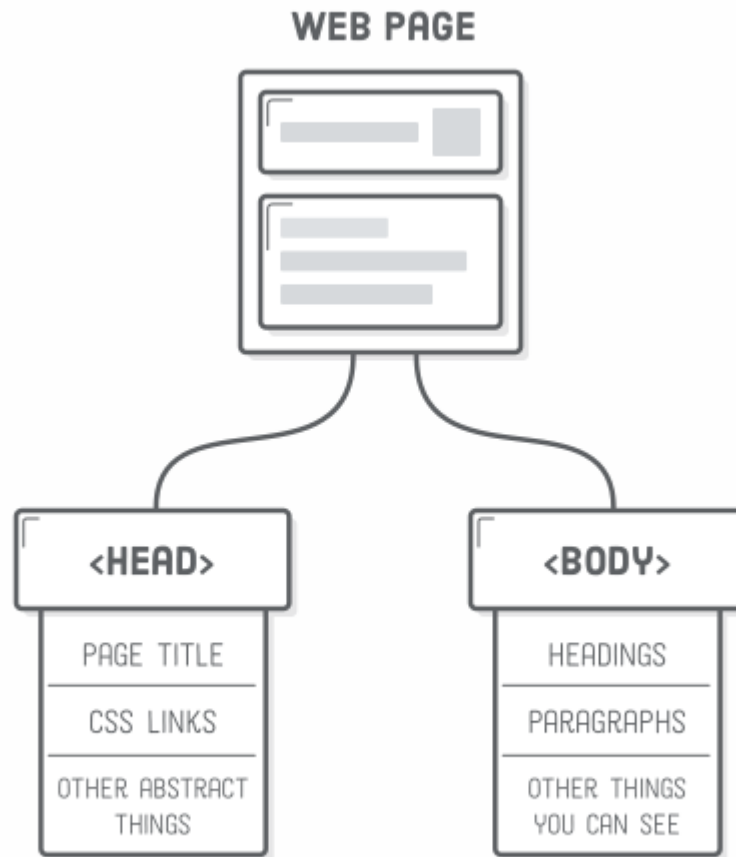
Don't

```html
<!-- (Don't ever do this) -->
<head>
  <title>Interneting Is Easy!</head>
</title>
```

Paragraphs

```
<!DOCTYPE html>

<html>

  <head>

    <title>Interneting Is Easy!</title>

  </head>

  <body>

    <p>First, we need to learn some basic HTML.</p>

  </body>

</html>
```

Heading

```
<body>

  <h1>Interneting Is Easy!</h1>

  <p>First, we need to learn some basic HTML.</p>

</body>
```

Heading

```
<!DOCTYPE html>
<html>
  <head>
    <title>Interneting Is Easy!</title>
  </head>
  <body>
    <h1>Interneting Is Easy!</h1>
    <p>First, we need to learn some basic HTML.</p>

    <h2>Headings</h2>
    <p>Headings define the outline of your site. There are
six levels of
    headings.</p>
  </body>
</html>
```

Unordered List

```
<h2>Lists</h2>

<p>This is how you make an unordered list:</p>

<ul>
  <li>Add a "ul" element (it stands for unordered
list)</li>
  <li>Add each item in its own "li" element</li>
  <li>They don't need to be in any particular order</li>
</ul>
```

Ordered List

```
<p>This is what an ordered list looks like:</p>

<ol>
  <li>Notice the new "ol" element wrapping everything</li>
  <li>But, the list item elements are the same</li>
  <li>Also note how the numbers increment on their
own</li>
  <li>You should be noticing things is this precise order,
because this is
      an ordered list</li>
</ol>
```

Task

Create the following webpage

A Nested List

Lists can be nested (list inside list):

- Coffee
- Tea
    1. Black tea
    2. Green tea
- Milk

Solution

```
<!DOCTYPE html>
<html>
<body>

<h2>A Nested List</h2>
<p>Lists can be nested (list inside list):</p>

<ul>
  <li>Coffee</li>
  <li>Tea
    <ol>
      <li>Black tea</li>
      <li>Green tea</li>
    </ol>
  </li>
  <li>Milk</li>
</ul>

</body>
</html>
```
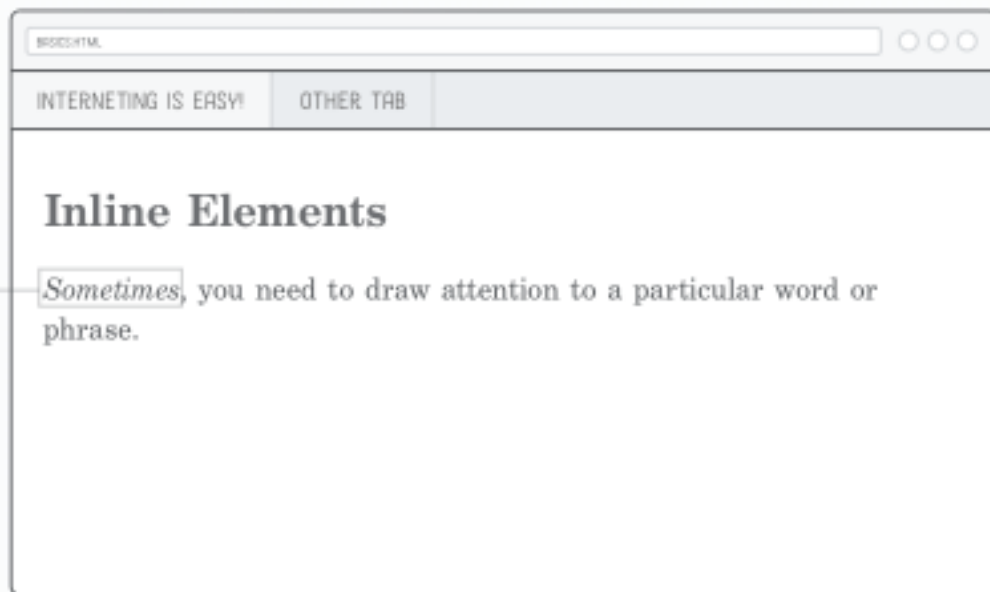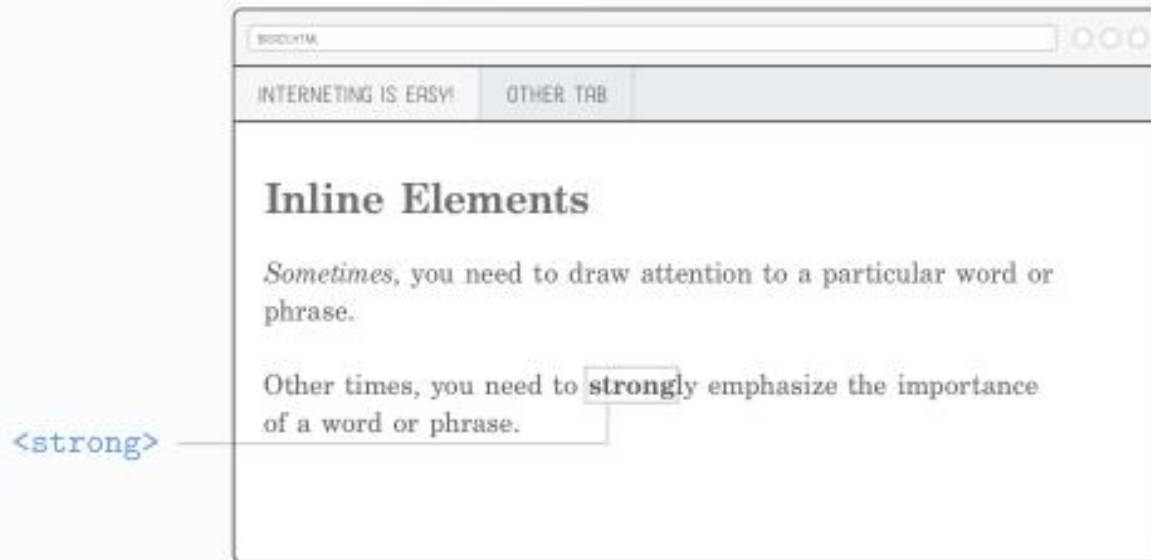
\<em\>

```
<h2>Inline Elements</h2>

<p><em>Sometimes</em>, you need to draw attention to a particular word or
phrase.</p>
```

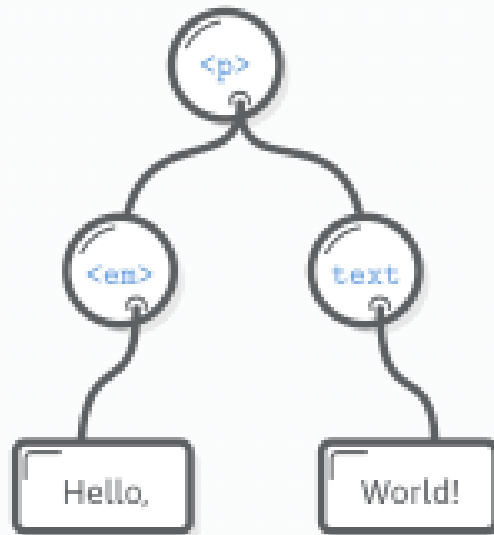# \<strong\>

```
<p>Other times you need to <strong>strong</strong>ly emphasize the importance
of a word or phrase.</p>
```
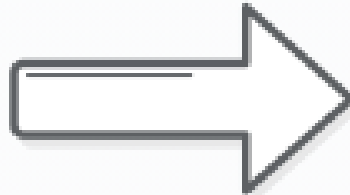
It should be rendered in bold text, like so:

Why not <bold> and <italic>?

HTML
(STRUCTURE)

CSS
(PRESENTATION)

Why not <bold> and <italic>?

— STRUCTURE VERSUS PRESENTATION —

You might be wondering why we're using the terms "emphasis" and "strong" instead of "italic" and "bold". That brings us to an important distinction between HTML and CSS. HTML markup should provide *semantic* information about your content—not *presentational* information. In other words, HTML should define the structure of your document, leaving its appearance to CSS.

The pseudo-obsolete <b> and <i> elements are classic examples of this. They used to stand for "bold" and "italic", respectively, but HTML5 attempted to create a clear separation between a document's structure and its presentation. Thus, <i> was replaced with <em>, since emphasized text can be displayed in all sorts of ways aside from being italicized (e.g., in a different font, a different color, or a bigger size). Same for <b> and <strong>.

As we'll discover in Hello, CSS, we can alter the browser's default rendering of the <strong> and <em> elements. This furthers the point that we shouldn't call it out as italicized or bold text in the HTML—that's something for CSS to decide.