

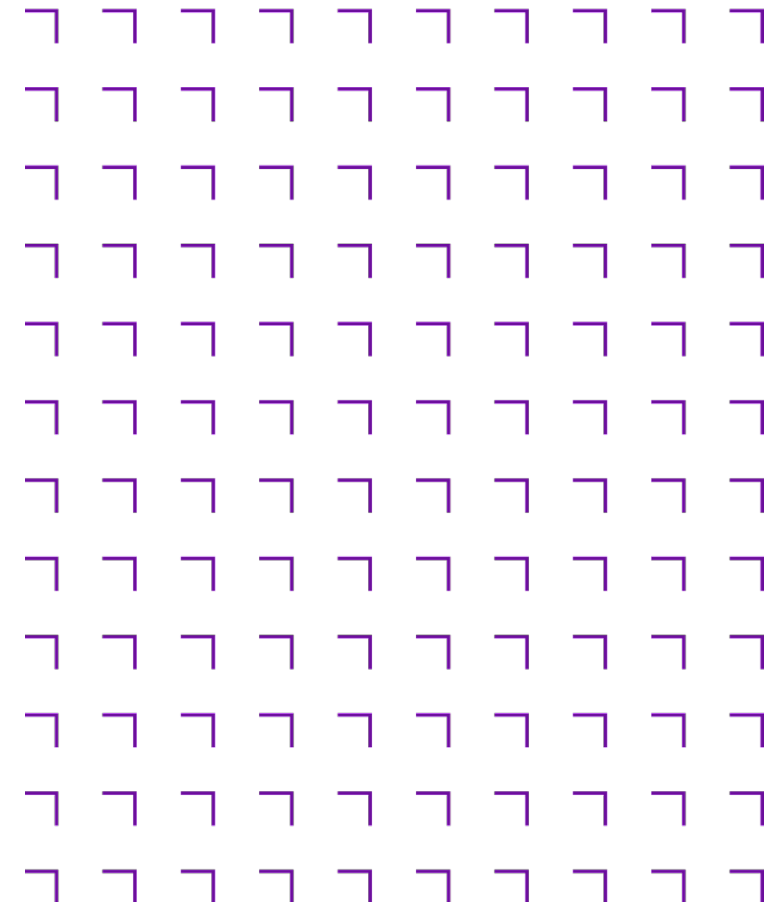
# Web Design

HTML Basics

## Course Outline

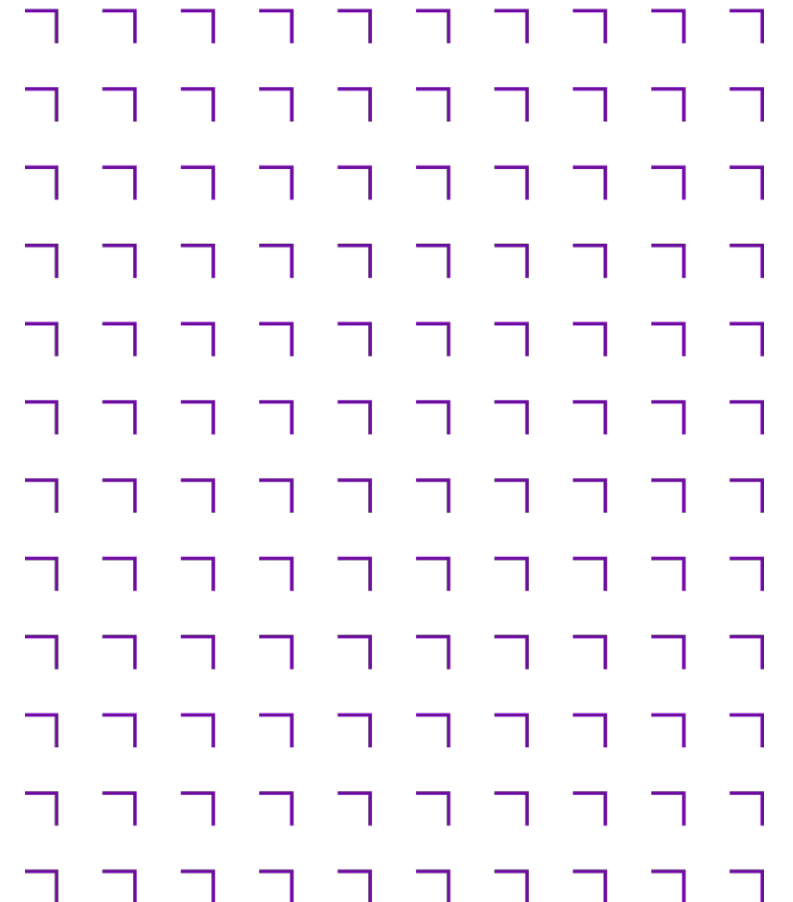


1. Introduction to the Internet and World Wide Web
2. HTML Basics
3. Web Development & Design
4. Visual Elements and Graphics
5. Web Design
6. Page Layout Basics
7. Responsive Page Layout
8. Tables
9. Forms
10. Web Development Roles
11. Web Promotion
12. Ecommerce Overview



- Web Design
  - 12%
  - Design and create your first website

## Assessment

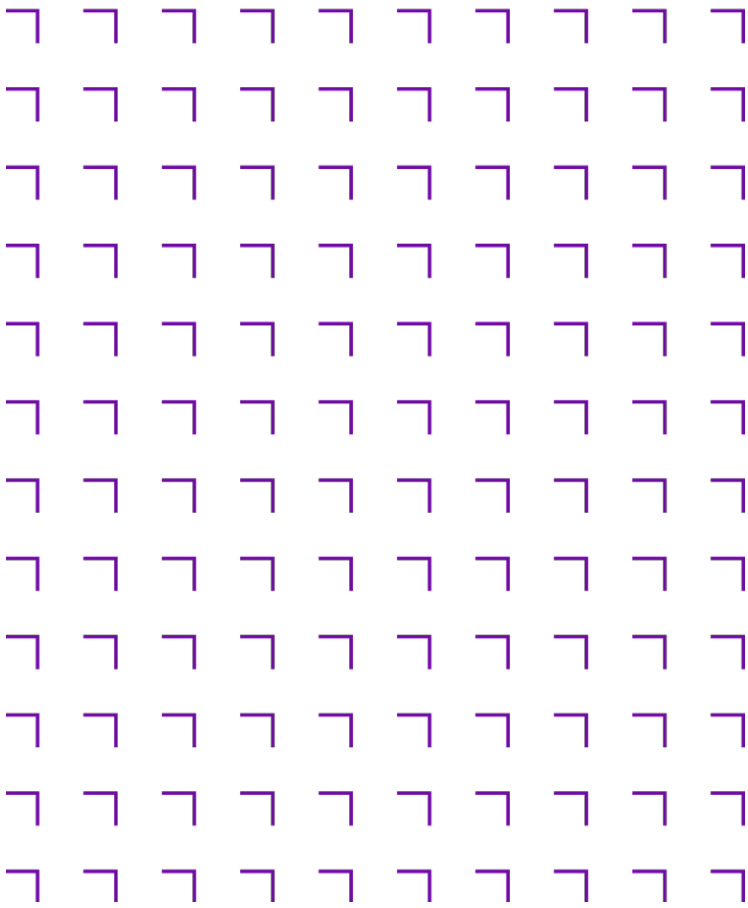


# 2. HTML Basics

## In This Unit



Title	Timing
Lecture	60:00
Break	15:00
Live Examples	30:00
Labs	60:00
Q&A	15:00



# Learning Outcomes (1 of 2)

**In this unit, you will learn how to ...**

- Describe HTML, XHTML, and HTML5
- Identify the markup language in a web page document
- Use the html, head, body, title, and meta elements to code a template for a web page
- Configure the body of a web page with headings, paragraphs, line breaks, divs, lists, and blockquotes
- Configure text with phrase elements

# Learning Outcomes (2 of 2)

- Configure a web page using structural elements including header, nav, main, footer, section, aside, and article elements
- Configure special characters
- Use the anchor element to link from page to page
- Create absolute, relative, and e-mail hyperlinks
- Code, save, and display a web page document
- Test a web page document for valid syntax

# What is HTML?

HTML:

The set of markup symbols or codes placed in a file intended for display on a Web browser page.

The World Wide Web Consortium (<http://w3c.org>) sets the standards for HTML and its related languages.

# HTML Elements

- Each markup code represents an HTML **element**.
- Each element has a purpose.  
Most elements are coded as a pair of tags:  
an opening tag and a closing tag.
- Tags are enclosed in angle brackets, "<" and ">" symbols.



# What is HTML5 ?

- Newest version of HTML/XHTML
- Supported by modern browsers
- Intended to be backwards compatible
- Adds new elements
- Adds new functionality
  - Edit form data
  - Native video and audio
  - And more!



Source: W3C <http://www.w3.org/html/logo/>

# Document Type Definition

## Document Type Definition (DTD)

- doctype statement
- identifies the version of HTML contained in your document.
- placed at the top of a web page document

**<!DOCTYPE html>**

# Example HTML5 Web Page

```
<!DOCTYPE html>  
<html lang="en">  
<head>  
<title>Page Title Goes Here</title>  
<meta charset="utf-8">  
</head>  
<body>  
... body text and more HTML5 tags go here ...  
</body>  
</html>
```

# Head & Body Sections

## Head Section

Contains information that describes the web page document

**<head>**

*...head section info goes here*

**</head>**

## Body Section

Contains text and elements that display in the web page document

**<body>**

*...body section info goes here*

**</body>**

## Figure 2.3

### Code displayed in Notepad. Courtesy of Microsoft Corporation.

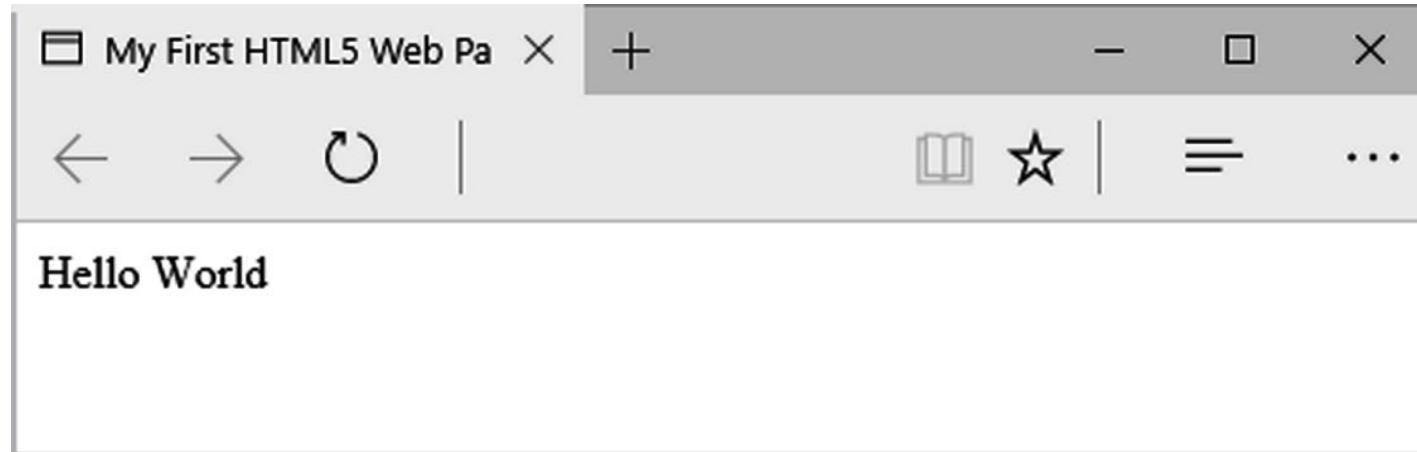
```
index.html - Notepad
File Edit Format View Help
<!DOCTYPE html>
<html lang="en">
<head>
<title>My First HTML5 Web Page</title>
<meta charset="utf-8">
</head>
<body>
Hello World
</body>
</html>
```



Title Element  
Meta Element

## Figure 2.5

Web page displayed by Microsoft Edge.  
Courtesy of Microsoft Corporation.



# Heading Element

`<h1>Heading Level 1</h1>`

`<h2>Heading Level 2</h2>`

`<h3>Heading Level 3</h3>`

`<h4>Heading Level 4</h4>`

`<h5>Heading Level 5</h5>`

`<h6>Heading Level 6</h6>`

**Heading Level 1**

**Heading Level 2**

**Heading Level 3**

**Heading Level 4**

**Heading Level 5**

**Heading Level 6**

# Paragraph Element

Paragraph element

`<p> ...paragraph goes here... </p>`

- Groups sentences and sections of text together.
- Block Display – Configures empty space above and below



# Line Break Element

Line Break element

- Stand-alone, or void tag

*...text goes here <br>*  
*This starts on a new line....*

- Causes the next element or text to display on a new line

# Blockquote Element

## Blockquote element

- Indents a block of text for special emphasis

**<blockquote>**

*...text goes here...*

**</blockquote>**

- Block Display – Configures empty space above and below

# Table 2.1

## Phrase Elements

Indicate the context and meaning of the text

Element	Example	Usage
<b>&lt;b&gt;</b>	bold text	Text that has no extra importance but is styled in bold font by usage and convention
<b>&lt;em&gt;</b>	emphasized text	Causes text to be emphasized in relation to other text; usually displayed in italics
<b>&lt;i&gt;</b>	italicized text	Text that has no extra importance but is styled in italics by usage and convention
<b>&lt;mark&gt;</b>	mark text	Text that is highlighted in order to be easily referenced (HTML5 only)
<b>&lt;small&gt;</b>	small text	Legal disclaimers and notices ("fine print") displayed in small font-size
<b>&lt;strong&gt;</b>	strong text	Strong importance; causes text to stand out from surrounding text; usually displayed in bold
<b>&lt;sub&gt;</b>	<sub>sub</sub> text	Displays a subscript as small text below the baseline
<b>&lt;sup&gt;</b>	<sup>sup</sup> text	Displays a superscript as small text above the baseline

# Proper Nesting

CODE:

```
<p><i>Call for a free quote for your web  
development needs:  
<strong>888.555.5555 </strong></i></p>
```

BROWSER DISPLAY:

*Call for a free quote for your web development needs:  
888.555.5555*

# HTML Lists

Unordered List

Ordered List

Description List

# Unordered List

Displays a bullet, or list marker, before each entry in the list.

`<ul>`

Contains the unordered list

`<li>`

Contains an item in the list

- TCP
- IP
- HTTP
- FTP

# Unordered List Example

```
<ul>
  <li>TCP</li>
  <li>IP</li>
  <li>HTTP</li>
  <li>FTP</li>
</ul>
```

- TCP
- IP
- HTTP
- FTP

# Ordered List

Displays a numbering or lettering system to itemize the information contained in the list

`<ol>`

Contains the ordered list

- type attribute determines numbering scheme of list, default is numerals

`<li>`

Contains an item in the list



# Ordered List Example

`<ol>`

`<li>Apply to school</li>`

`<li>Register for course</li>`

`<li>Pay tuition</li>`

`<li>Attend course</li>`

`</ol>`

1. Apply to school
2. Register for course
3. Pay tuition
4. Attend course

# Description List

Useful to display a list of terms and descriptions or a list of FAQ and answers

- `<dl>`  
Contains the description list
- `<dt>`  
Contains a term/phrase/sentence  
Configures empty space above and below the text
- `<dd>`  
Contains a description of the term/phrase/sentence
  - Indents the text
  - Configures empty space above and below the text

# Description List Example

`<dl>`

`<dt>IP</dt>`

`<dd>Internet Protocol</dd>`

`<dt>TCP</dt>`

`<dd>Transmission Control  
Protocol</dd>`

`</dl>`

IP

Internet Protocol

TCP

Transmission Control Protocol

# Checkpoint

1. *Describe the features of a heading element and how it configures the text.*
2. *Describe the difference between ordered lists and unordered lists.*
3. *Describe the purpose of the blockquote tag.*

# Special Characters

- Display special characters such as quotes, copyright symbol, etc.

Character	Code
©	&copy;
<	&lt;
>	&gt;
&	&amp;
	&nbsp;

Also see Table 2.3

# Div Element

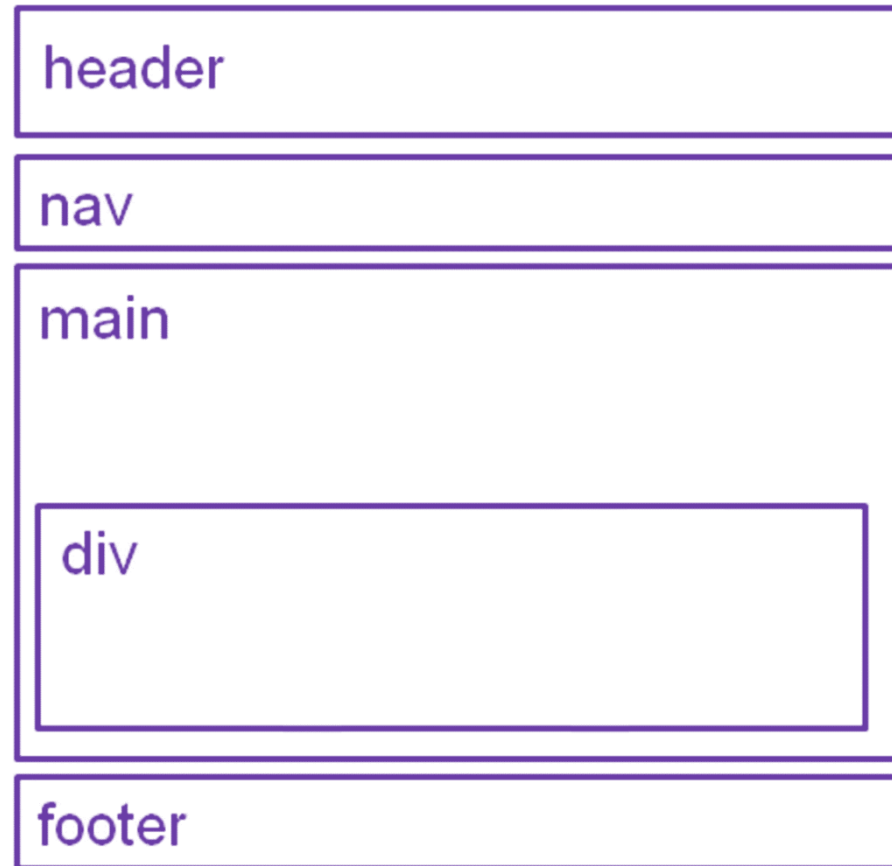
Configures a structural block area or “division” on a web page with empty space above and below.

Can contain other block display elements, including other div elements

```
<div>Home Services Contact</div>
```

## Figure 2.20

### Wireframe for Casita Sedona



# HTML5 Structural Elements (1 of 3)

## header Element

`<header></header>`

Contains the web page  
document's headings

## nav Element

`<nav></nav>`

Contains web page  
document's main navigation



# HTML5 Structural Elements (2 of 3)

## main Element

`<main></main>`

Contains the web page  
document's main content

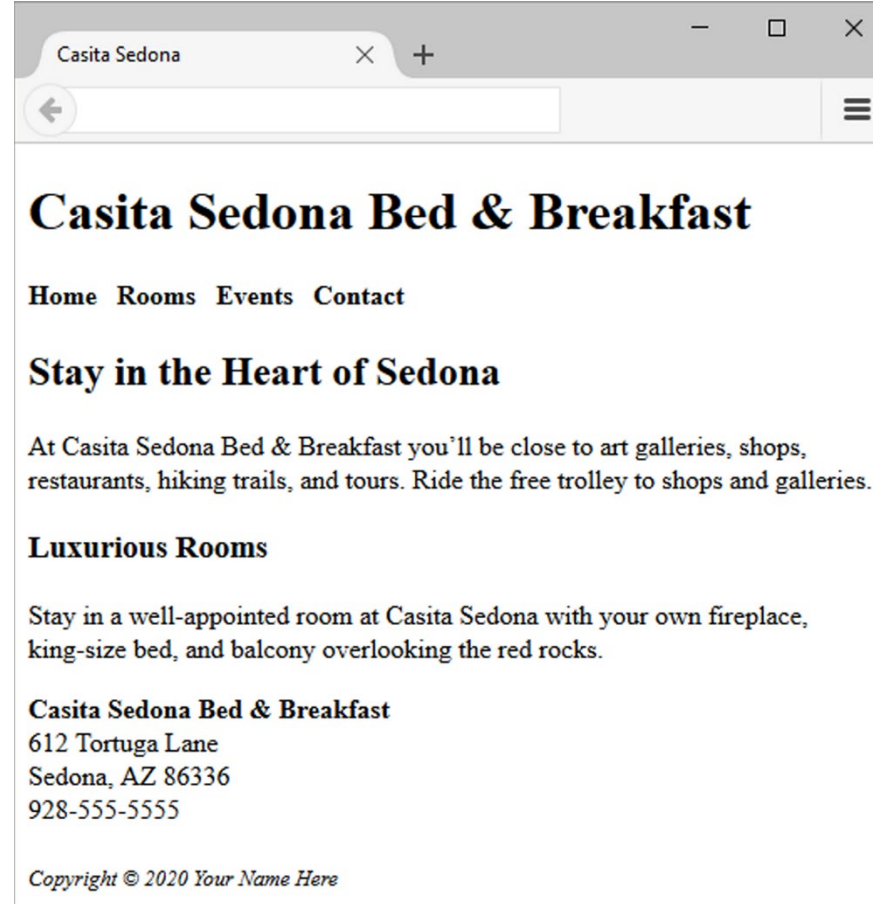
## footer Element

`<footer></footer>`

Contains the web page  
document's footer

# Figure 2.21

## Casita Sedona web page



# HTML5 Structural Elements (3 of 3)

`<body>`

`<header>` *document headings go here*

`</header>`

`<nav>` *main navigation goes here* `</nav>`

`<main>` *main content goes here* `</main>`

`<footer>` *document footer information goes here* `</footer>`

`</body>`

# More Structural Elements (1 of 2)

## Aside Element

- block display; contains a sidebar, a note, or other tangential content

## Section Element

- contains a “section” of a document, such as a chapter or topic
- block display

# More Structural Elements (2 of 2)

## Article Element

- contains an independent entry, such as a blog posting, comment, or e-zine article that could stand on its own
- block display

## Time Element

- represents a date or a time
- could be useful to date articles or blog posts
- inline display

# Figure 2.22

## The blog page



# A Element (Anchor Element)

- Specifies a hyperlink reference (href) to a file
- Text between the `<a>` and `</a>` is displayed on the web page.

**`<a href="contact.html">Contact Us</a>`**

- href Attribute
  - Indicates the file name or URL

# Opening a Link in a New Browser Window

The target attribute on the anchor element opens a link in a new browser window or new browser tab.

```
<a href="https://google.com" target="_blank">Search  
Google</a>
```



# HTML5 Block Anchor

Configure block display elements within a hyperlink

```
<a href="http://www.w3.org/TR/html-  
markup">
```

```
<h1>HTML5 Reference</h1>
```

```
<p>Bookmark this site for a handy HTML5  
reference.</p>
```

```
</a>
```



# Absolute & Relative Hyperlinks

## Absolute link

- Link to a different website

`<a href="http://yahoo.com">Yahoo</a>`

## Relative link

- Link to pages on your own site

`<a href="index.html">Home</a>`

# E-Mail Hyperlink

Automatically launch the default mail program configured for the browser

If no browser default is configured,  
a message is displayed

```
<a  
href="mailto:me@gmail.com">me@gmail.com</  
a>
```

# Hyperlinks

- Hands-On Practice

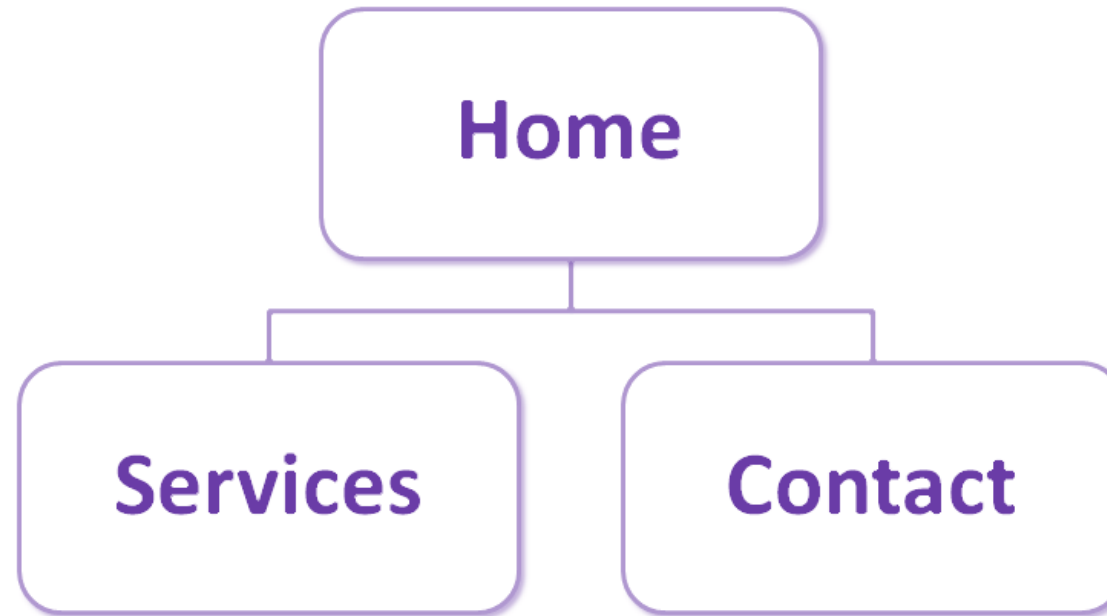


Figure 2.23 Site map

# Checkpoint (2 of 2)

- 1. Describe the purpose of special characters.*
- 2. Describe when to use an absolute link.  
Is the http protocol used in the href value?*
- 3. Describe when to use a relative link. Is the http protocol used in the href value?*

# Writing Valid HTML

Check your code for syntax errors

Benefit:

Valid code →

more consistent browser display

W3C HTML Validation Tool

<http://validator.w3.org>

# Summary



- HTML
- Elements
- Lists
- Hyperlinks
- Validating HTML

