ECommerce definition and types of commerce

Ecommerce (e-commerce) or electronic commerce, a subset of ebusiness, is the purchasing, selling, and exchanging of goods and services over computer networks (such as the Internet) through which transactions or terms of sale are performed electronically. Contrary to popular belief, ecommerce is not just on the Web. In fact, eCommerce was alive and well in business to business transactions before the Web back in the 70s via EDI (Electronic Data Interchange) through VANs (Value-Added Networks). Ecommerce can be broken into four main categories: B2B, B2C, C2B, and C2C.

B2B (Business-to-Business)

Companies doing business with each other such as manufacturers selling to distributors and wholesalers selling to retailers. Pricing is based on quantity of order and is often negotiable.

B2C (Business-to-Consumer)

Businesses selling to the general public typically through catalogs utilizing shopping cart software. By dollar volume, B2B takes the prize, however B2C is really what the average Joe has in mind with regards to ecommerce as a whole.

Having a hard time finding a book? Need to purchase a custom, high-end computer system? How about a first class, all-inclusive trip to a tropical island? With the advent ecommerce, all three things can be purchased literally in minutes without human interaction. Oh how far we've come!

C2B (Consumer-to-Business)

A consumer posts his project with a set budget online and within hours companies review the consumer's requirements and bid on the project. The consumer reviews the bids and selects the company that will complete the project. Elance empowers consumers around the world by providing the meeting ground and platform for such transactions.

C2C (Consumer-to-Consumer)

There are many sites offering free classifieds, auctions, and forums where individuals can buy and sell thanks to online payment systems like PayPal where people can send and receive money online with ease. eBay's auction service is a great example of where person-to-person transactions take place everyday since 1995.

Companies using internal networks to offer their employees products and services online--not necessarily online on the Web--are engaging in B2E (Business-to-Employee) ecommerce.

G2G (Government-to-Government), G2E (Government-to-Employee), G2B (Government-to-Business), B2G (Business-to-Government), G2C (Government-to-Citizen), C2G (Citizen-to-Government) are other forms of ecommerce that involve transactions with the government--from procurement to filing taxes to business registrations to renewing licenses. There are other categories of ecommerce out there, but they tend to be superfluous.

What is the difference between E-commerce and E-Business?

E-commerce is buying and selling using an electronic medium. It is accepting credit and

payments over the net, doing banking transactions using the Internet, selling commodities or information using the World Wide Web and so on.

E-Business in addition to encompassing E-commerce includes both front and back-office applications that form the engine for modern E-commerce. E-business is not just about E-commerce transactions; it's about re-defining old business models, with the aid of technology to maximize customer value. E-Business is the overall strategy and E-commerce is an extremely important facet of E-Business.

Thus e-business involves not merely setting up the company website and being able to accept credit card payments or being able to sell products or services on time. It involves fundamental re-structuring and streamlining of the business using technology by implementing enterprise resource planning (ERP) systems, supply chain management, customer relationship management, data ware housing, data marts, data mining, etc.

Features of eCommerce Technology

Interactivity

Technologies used in eCommerce require consumer interactions in order to make an individual feel as though he is an active participant in the transaction process. As a result, eCommerce technologies can adjust to each individual's experience. For example, while shopping online, an individual is able to view different angles of some items, add products into a virtual shopping cart, checkout by inputting his payment information and then submit the order.

Personalization

Technologies within eCommerce allow for the personalization and customization of marketing messages groups or individuals receive. Pearson Education states that companies can base such messages on individual characteristics of a consumer. An example of personalization includes product recommendations based on a user's search history on a Web site that allows individuals to create an account.

Information Richness

Users can access and utilize text messages and visual and audio components to send and receive information. Pearson Education states that such aspects provide a rich informational experience in regards to marketing and the consumer experience. An individual may see information richness on a company's blog if a post contains a video related to a product and hyperlinks that allow him to look at or purchase the product and send information about the post via text message or email.

Universal Standards

Individuals, businesses and governments only use one set of technological, media and Internet standards to use eCommerce features. Consequently, universal standards help simplify interactions. An individual can see these standards while shopping online, as the process to purchase items is similar on Web sites that use eCommerce technologies. Similarly, when an individual creates an online account, the site

generally requires an individual to create a username and password so he can access his account.

Ubiquity

Because they are web-based, eCommerce technological features are available anywhere you can connect to the Internet at any time, including homes, offices, video game systems with an Internet connection and mobile phone devices. Because eCommerce is ubiquitous, the market is able to extend its traditional geographic boundaries and operating hours. An example includes the ability to access the Internet wherever there is a Wi-Fi hotspot, such as a cafe or airport. Moreover, individuals who have cell phones with data capabilities can access the Internet without a Wi-Fi connection.

Information Density

The use of eCommerce reduces the cost to store, process and communicate information, according to Pearson Education. At the same time, accuracy and timeliness increase; thus, making information accurate, inexpensive and plentiful. For example, the online shopping process allows a company to receive personal, shipping, billing and payment information from a customer all at once and sends the customer's information to the appropriate departments in a matter of seconds.

User-Generated Content

Social networks use eCommerce technologies to allow members, the general public, to share content with the worldwide community, according to Kurt Grashaw in an article for the Web site Merchant Circle. Consequently, consumers with accounts can share personal and commercial information to promote a product or service. When a company has a professional social networking account, a member of the same social network has the option of associating himself with the company or a product by saying he likes or recommends it. When an individual updates his status on a social networking account, he may also mention a product or company by name, which creates word-of-mouth advertising.

Global Reach

Technologies within eCommerce seamlessly stretch across traditional cultural and national boundaries and enable worldwide access. Pearson Education states that instead of just offering goods and services to a population within a specific boundary, businesses can market to and serve an international audience. The Internet and multilingual Web sites, as well as the ability to translate a Web page, allows international visitors all over the globe to access company Web sites, purchase products and make business interactions.

Understanding the World Wide Web

The world wide web is a system of Internet servers that supports hypertext and multimedia to access several Internet protocols on a single interface. The World Wide Web is often abbreviated as the web or www.

The World Wide Web was developed in 1989 by Tim Berners-Lee of the European Particle Physics Lab (CERN) in Switzerland. The initial

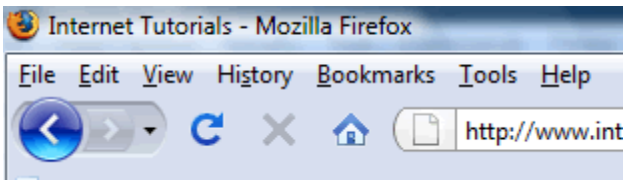
purpose of the Web was to use networked hypertext to facilitate communication among its members, who were located in several countries. Word was soon spread beyond CERN, and a rapid growth in the number of both developers and users ensued. In addition to hypertext, the Web began to incorporate graphics, video, and sound. The use of the Web has reached global proportions and has become a defining element of human culture in an amazingly short period of time.

In order for the Web to be accessible to anyone, certain agreed-upon standards must be followed in the creation and delivery of its content. An organization leading the efforts to standardize the Web is the World Wide Web (W3C) Consortium. Take a look at the W3C Consortium Web site to get an idea of its activities. A lot of the material is technical because, after all, the Web is a technical phenomenon.

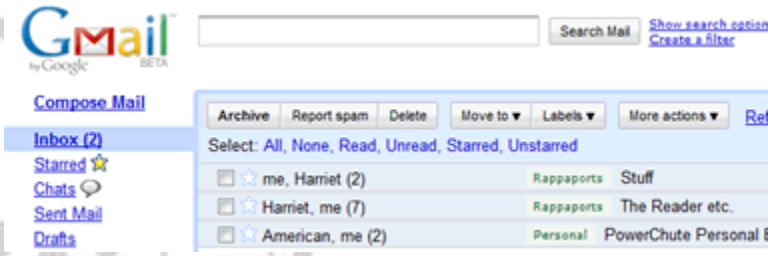
Protocols of the Web

The surface simplicity of the Web comes from the fact that many individual protocols can be contained within a single Web site. internet protocols are sets of rules that allow for intermachine communication on the Internet. These are a few of the protocols you can experience on the Web:

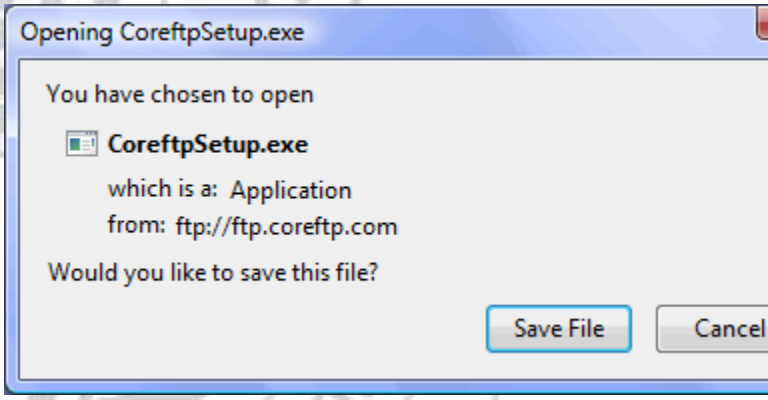
HTTP (HyperText Transfer Protocol): transmits hyptertext over networks. This is the protocol of the Web.



E-mail (Simple Mail Transport Protocol or SMTP): distributes e-mail messages and attached files to one or more electronic mailboxes.



FTP (File Transfer Protocol): transfers files between an FTP server and a computer, for example, to download software.



Hypertext and links: the motion of the Web

The operation of the Web relies primarily on hypertext as its means of information retrieval. HyperText is a document containing words that connect to other documents. These words are called links and are selectable by the user. A single hypertext document can contain links to many documents. In the context of the Web, words or graphics may serve as links to other documents, images, video, and sound. Links may or may not follow a logical path, as each connection is created by the author of the source document. Overall, the Web contains a complex virtual web of connections among a

vast number of documents, images, videos, and sounds.

Producing hypertext for the Web is accomplished by creating documents with a language called hypertext markup language, or html. With HTML, tags are placed within the text to accomplish document formatting, visual features such as font size, italics and bold, and the creation of hypertext links.

 This is a paragraph that shows the underlying HTML code. This sentence is rendered in bold text. This sentence is rendered in italic text.

HTML is an evolving language, with new tags being added as each upgrade of the language is developed and released. Nowadays, design features are often separated from the content of the HTML page and placed into cascading style sheets (css). This practice has several advantages, including the fact that an external style sheet can centrally control the design of multiple pages. The World Wide Web Consortium (W3C), led by Web founder Tim Berners-Lee, coordinates the efforts of standardizing HTML. The W3C now calls the language XHTML and considers it to be an application of the XML language standard.

Pages on the Web

The backbone of the World Wide Web are its files, called pages or Web pages, containing information and links to resources - both text and multimedia - throughout the Internet.

Web pages can be created by user activity. For example, if you visit a Web search engine and enter keywords on the topic of your choice, a page will be created containing the results of your search. In fact, a growing amount of information found on the Web today is served from databases, creating temporary Web pages "on the fly" in response to user searches. You can see an example of such a page below, taken from the search engine Hakia. This page only exists as a result of a search.

Access to Web pages can be accomplished in all sorts of ways, including:

Entering a Web address into your browser and retrieving a page directly

Browsing through sites and selecting links to move from one page to another both within and beyond the site

Doing a search on a search engine to retrieve pages on the topic of your choice (See: The World of Search Engines)

Searching through directories containing links to organized collections of Web pages (See: The World of Subject Directories)

Clicking on links within e-mail messages

Using apps on social networking sites or your mobile phone to access Web and other online content

Retrieving updates via RSS feeds and clicking on links within these feeds (See: RSS Basics)

Retrieving files on the Web: the URL and Domain Name System

URL

url stands for uniform resource locator. The URL specifies the Internet address of a file stored on a host computer, or server, connected to the Internet. Web browsers use the URL to retrieve the file from the server. This file is downloaded to the user's computer, or client, and displayed on the monitor connected to the machine. Because of this relationship between clients and servers, the Web is a client-server network.

Underlying the functionality of a URL is a base numeric address that points to the computer that hosts the file. This numeric address is called the ip (internet protocol) address. The host portion of a URL is translated into its corresponding IP address using the domain name system (dns). The DNS is a worldwide system of servers that stores location pointers to the computers that host networked files. Since numeric strings are difficult for humans to use, alphneumeric addresses are employed by users. Once the translation is made by the DNS, the browser can contact the server and ask for the specific file designated in the URL.

For example, the DNS translates www.microsoft.com into the IP address 207.46.19.254.

Anatomy of a URL

Every file on the Internet, no matter what its protocol, has a unique URL. Each URL points to a specific file located in a specific directory on the host machine. This is the format of a URL:

protocol://host/path/filename

For example, this is a URL from the site of the U.S. Senate of a live video stream sent by a camera pointed at the U.S. Capitol:

http://www.senate.gov/general/capcam.htm

This URL is typical of addresses hosted in domains in the United States. The structure of this URL is shown below.

Protocol: http

Host computer name: www

Second-level domain name: senate

Top-level domain name: gov

Directory name: general

File name: capcam.htm

Note how much information about the content of the file is present in this well-constructed URL.

Several generic top-level domains (gTLDs) are common in the United States:

m	commercial enterprise
edu	educational institution
gov	U.S. government entity
mil	U.S. military entity
net	network access provder
org	usually nonprofit organizations

In addition, dozens of domain names have been assigned to identify and locate files stored on servers in countries around the world. These are referred to as country codes, and have been standardized by the International Standards Organization as ISO 3166. For example: ch Switzerland

de Germany

jp Japan

uk United Kingdom

Difference between FTP, HTTP, TCP/IP. Please explain.?

n order to fetch a web page for you, your web browser must "talk" to a web server and when web browsers talk to web servers, they speak a language known as HTTP.

FTP refers to a network protocol which is responsible for transferring files from one computer to another computer.

TCP/IP is a basic communication language or protocol of the internet. It can also be used as a communications protocol in a private network (either intranet, Extranet)

FTP means the File Transfer Protocol, File Transfer Protocol (FTP) is a standard network protocol used to exchange and manipulate files over a TCP/IP-based network

HTTP means the Hyper Text Protocol. it used for HTTP is a request/response standard typical of client-server computing.

TCP/IP is the communication protocol for the internet and it used for internet and other similar protocols.

HTML

What Is HTML?

HTML stands for HyperText Markup Language. Developed by scientist Tim Berners-Lee in 1990, HTML is the "hidden" code that helps us communicate with others on the World Wide Web (WWW).

HTML is the "language" that web pages are written in - in fact, HTML stands for "hypertext mark-up language." But what does that mean?

Hyper is the opposite of linear. Old-fashioned computer programs were necessarily linear - that is, they had a specific order. But with a "hyper" language such as HTML, the user can go anywhere on the web page at any time.

Text is just what you're looking at now - English characters used to make up ordinary words.

Mark-up is what is done to the text to change its appearance. For instance, "marking up" your text with before it and after it will put that text in bold.

Language is just that. HTML is the language that computers read in order to understand web pages.

Do I Need to Understand HTML to Create My Website?

Actually, no. There are many website-building programs on the market that don't require knowledge of HTML at all. You tell the program what you want, and the program creates the HTML for you.

However, it's definitely to your benefit to understand how HTML works, even if you're using one of these programs, so you can take full advantage of everything they have to offer. And if you're a do-it-yourselfer, creating your own website from scratch, including the HTML code, can be a lot of fun.

What Do I Need to Write HTML?

A computer, an Internet browser (if you're reading this web page now, you've obviously got both), and a word-processing program such as Microsoft's Notepad or WordPad, or Mac's Simple Text. Technically speaking, that's all you need.

What Can I Do with HTML?

- HTML coding is what makes your website look like a website, rather than just plain text. With HTML, you can:
- Create titles, headings and subheadings.
- Make a bulleted or numbered list.
- Delineate paragraphs.
- Put text in bold or italics.
- Add pictures and links to your site.
- And much more.

HTML Basic Document

<!DOCTYPE html>

<html>

<head>

<title>Title of document goes here</title>

</head>

<body>

Visible text goes here...

</body>

</html>

Basic Tags

<h1>Largest Heading</h1>

<h2> . . . </h2>

<h3> . . . </h3>

<h4> . . . </h4>

<h5> . . . </h5>

<h6>Smallest Heading</h6>

This is a paragraph.

 (line break)

<hr> (horizontal rule)

<!-- This is a comment -->

Formatting

Bold text

<code>Computer code</code>

Emphasized text

Italic text

<kbd>Keyboard input</kbd>

<pre>Preformatted text</pre>

<small>Smaller text</small>

Important text

<abbr> (abbreviation)

<address> (contact information)

<bdo> (text direction)

<blockquote> (a section quoted from another source)

<cite> (title of a work)

<del> (deleted text)

<ins> (inserted text)

<sub> (subscripted text)

<sup> (superscripted text)

Links

Ordinary link: Link-text goes here

Image-link: <img src="URL" alt="Alternate Text">

Mailto link: Send e-mail

Bookmark:

Tips Section

Jump to the Tips Section

Images

<img src="URL" alt="Alternate Text" height="42" width="42">

Styles/Sections

<style type="text/css">

h1 {color:red;}

p {color:blue;}

</style>

<div>A block-level section in a document</div>

An inline section in a document

Unordered list

Item

Item

Ordered list

First item

Second item

Definition list

<dl>

<dt>Item 1</dt>

```
  <dd>Describe item 1</dd>
 <dt>Item 2</dt>
  <dd>Describe item 2</dd>
</dl>
```

Tables

```
<table border="1">
 <tr>
  <th>table header</th>
  <th>table header</th>
 </tr>
 <tr>
  <td>table data</td>
  <td>table data</td>
 </tr>
</table>
```

Iframe

```
<iframe src="demo_iframe.htm"></iframe>
```

Forms

```
<form action="demo_form.asp"
method="post/get">
<input type="text" name="email" size="40"
maxlength="50">
 <input type="password">
 <input type="checkbox"
checked="checked">
 <input type="radio" checked="checked">
 <input type="submit" value="Send">
 <input type="reset">
 <input type="hidden">
 <select>
 <option>Apples</option>
 <option
selected="selected">Bananas</option>
 <option>Cherries</option>
 </select>
<textarea name="comment" rows="60"
cols="20"></textarea>
 </form>
```

Entities

```
 &lt; is the same as <
 &gt; is the same as >
 &#169; is the same as ©
```

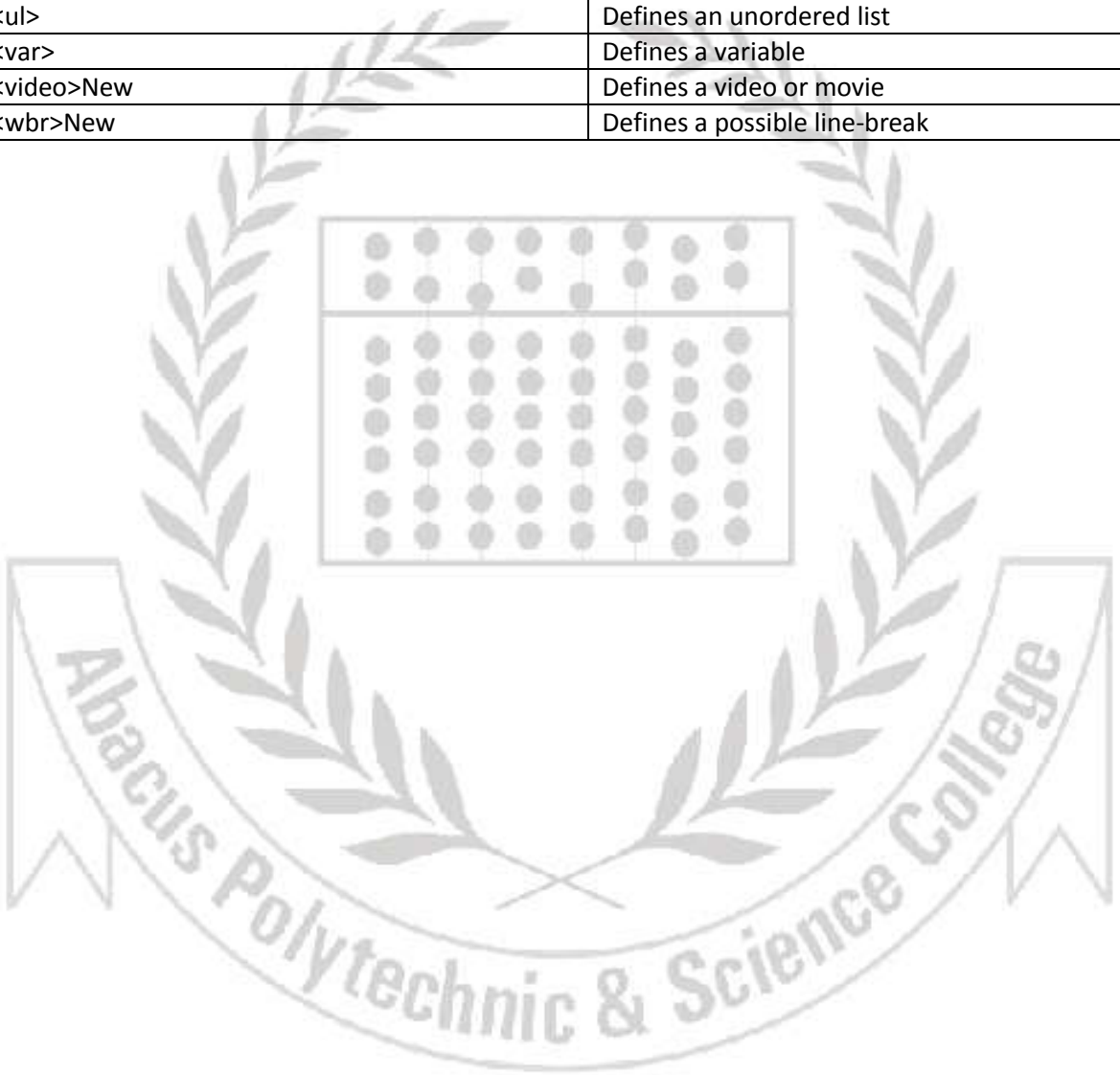
Tag	Description
<!--...-->	Defines a comment
<!DOCTYPE>	Defines the document type
<a>	Defines a hyperlink

<abbr>	Defines an abbreviation
<acronym>	Not supported in HTML5. Defines an acronym
<address>	Defines contact information for the author/owner of a document
<applet>	Not supported in HTML5. Deprecated in HTML 4.01. Defines an embedded applet
<area>	Defines an area inside an image-map
<article>New	Defines an article
<aside>New	Defines content aside from the page content
<audio>New	Defines sound content
<b>	Defines bold text
<base>	Specifies the base URL/target for all relative URLs in a document
<basefont>	Not supported in HTML5. Deprecated in HTML 4.01. Specifies a default color, size, and font for all text in a document
<bdi>New	Isolates a part of text that might be formatted in a different direction from other text outside it
<bdo>	Overrides the current text direction
<big>	Not supported in HTML5. Defines big text
<blockquote>	Defines a section that is quoted from another source
<body>	Defines the document's body
 	Defines a single line break
<button>	Defines a clickable button
<canvas>New	Used to draw graphics, on the fly, via scripting (usually JavaScript)
<caption>	Defines a table caption
	Not supported in HTML5. Deprecated in HTML 4.01. Defines centered text
<cite>	Defines the title of a work
<code>	Defines a piece of computer code
<col>	Specifies column properties for each column within a <colgroup> element
<colgroup>	Specifies a group of one or more columns in a table for formatting
<command>New	Defines a command button that a user can invoke
<datalist>New	Specifies a list of pre-defined options for input controls
<dd>	Defines a description of an item in a definition list
<del>	Defines text that has been deleted from a document
<details>New	Defines additional details that the user can view or hide
<dfn>	Defines a definition term
<dir>	Not supported in HTML5. Deprecated in HTML 4.01. Defines a directory list

	Defines a section in a document
<dl>	Defines a definition list
<dt>	Defines a term (an item) in a definition list
	Defines emphasized text
<embed>New	Defines a container for an external (non-HTML) application
<fieldset>	Groups related elements in a form
<figcaption>New	Defines a caption for a <figure> element
<figure>New	Specifies self-contained content
<font>	Not supported in HTML5. Deprecated in HTML 4.01. Defines font, color, and size for text
<footer>New	Defines a footer for a document or section
<form>	Defines an HTML form for user input
<frame>	Not supported in HTML5. Defines a window (a frame) in a frameset
<frameset>	Not supported in HTML5. Defines a set of frames
<h1> to <h6>	Defines HTML headings
<head>	Defines information about the document
<header>New	Defines a header for a document or section
<hgroup>New	Groups heading (<h1> to <h6>) elements
<hr>	Defines a thematic change in the content
<html>	Defines the root of an HTML document
<i>	Defines a part of text in an alternate voice or mood
<iframe>	Defines an inline frame
<img>	Defines an image
<input>	Defines an input control
<ins>	Defines a text that has been inserted into a document
<kbd>	Defines keyboard input
<keygen>New	Defines a key-pair generator field (for forms)
<label>	Defines a label for an <input> element
<legend>	Defines a caption for a <fieldset>, < figure>, or <details> element
	Defines a list item
<link>	Defines the relationship between a document and an external resource (most used to link to style sheets)
<map>	Defines a client-side image-map
<mark>New	Defines marked/highlighted text
<menu>	Defines a list/menu of commands
<meta>	Defines metadata about an HTML document
<meter>New	Defines a scalar measurement within a known range (a gauge)
<nav>New	Defines navigation links
<noframes>	Not supported in HTML5. Defines an alternate

	content for users that do not support frames
<noscript>	Defines an alternate content for users that do not support client-side scripts
<object>	Defines an embedded object
	Defines an ordered list
<optgroup>	Defines a group of related options in a drop-down list
<option>	Defines an option in a drop-down list
<output>New	Defines the result of a calculation
<p>	Defines a paragraph
<param>	Defines a parameter for an object
<pre>	Defines preformatted text
<progress>New	Represents the progress of a task
<q>	Defines a short quotation
<rp>New	Defines what to show in browsers that do not support ruby annotations
<rt>New	Defines an explanation/pronunciation of characters (for East Asian typography)
<ruby>New	Defines a ruby annotation (for East Asian typography)
<s>	Defines text that is no longer correct
<samp>	Defines sample output from a computer program
<script>	Defines a client-side script
<section>New	Defines a section in a document
<select>	Defines a drop-down list
<small>	Defines smaller text
<source>New	Defines multiple media resources for media elements (<video> and <audio>)
	Defines a section in a document
<strike>	Not supported in HTML5. Deprecated in HTML 4.01. Defines strikethrough text
	Defines important text
<style>	Defines style information for a document
<sub>	Defines subscripted text
<summary>New	Defines a visible heading for a <details> element
<sup>	Defines superscripted text
<table>	Defines a table
<tbody>	Groups the body content in a table
<td>	Defines a cell in a table
<textarea>	Defines a multiline input control (text area)
<tfoot>	Groups the footer content in a table
<th>	Defines a header cell in a table
<thead>	Groups the header content in a table
<time>New	Defines a date/time
<title>	Defines a title for the document
<tr>	Defines a row in a table

<track>New	Defines text tracks for media elements (<video> and <audio>)
<tt>	Not supported in HTML5. Defines teletype text
<u>	Defines text that should be stylistically different from normal text
	Defines an unordered list
<var>	Defines a variable
<video>New	Defines a video or movie
<wbr>New	Defines a possible line-break



What is CSS?

- CSS stands for Cascading Style Sheets
- Styles define how to display HTML elements
- Styles were added to HTML 4.0 to solve a problem
- External Style Sheets can save a lot of work
- External Style Sheets are stored in CSS files

An HTML document can be displayed with different styles: See how it works

HTML was never intended to contain tags for formatting a document.

HTML was intended to define the content of a document, like:

<h1>This is a heading</h1>

This is a paragraph.

When tags like <font>, and color attributes were added to the HTML 3.2 specification, it started a nightmare for web developers. Development of large web sites, where fonts and color information were added to every single page, became a long and expensive process.

- To solve this problem, the World Wide Web Consortium (W3C) created CSS.
- In HTML 4.0, all formatting could be removed from the HTML document, and stored in a separate CSS file.
- All browsers support CSS today.
- CSS Saves a Lot of Work!
- CSS defines HOW HTML elements are to be displayed.

Styles are normally saved in external .css files. External style sheets enable you to change the appearance and layout of all the pages in a Web site, just by editing one single file!

CSS Example

```
p

{

color:red;

text-align:center;
```

```
}
```

Example 2

```
h3
{
color:red;
text-align:left;
font-size:8pt;
}
```

JavaScript Introduction

JavaScript is the world's most popular programming language. It is the language for HTML and the web, for servers, PCs, laptops, tablets, smart phones, and more.

JavaScript is a Scripting Language

A scripting language is a lightweight programming language.

JavaScript is programming code that can be inserted into HTML pages.

JavaScript inserted into HTML pages, can be executed by all modern web browsers.

JavaScript is easy to learn.

JavaScript: Writing Into HTML Output

Example

```
document.write("<h1>This is a heading</h1>");
document.write("<p>This is a paragraph</p>");
```

You can only use document.write in the HTML output. If you use it after the document has loaded, the whole document will be overwritten.

JavaScript: Reacting to Events

Example

<button type="button" onclick="alert('Welcome!')">Click Me!</button>

The alert() function is not much used in JavaScript, but it is often quite handy for trying out code.

The onclick event is only one of the many HTML events you will learn about in this tutorial.

JavaScript: Changing HTML Content

Using JavaScript to manipulate the content of HTML elements is a very powerful functionality.

Example

```
x=document.getElementById("demo")  //Find the element
x.innerHTML="Hello JavaScript";    //Change the content
```

You will often see document.getElementByID("some id"). This is defined in the HTML DOM.

The DOM (Document Object Model) is the official W3C standard for accessing HTML elements.

You will find several chapters about the HTML DOM in this tutorial.

JavaScript: Changing HTML Images

This example dynamically changes the source (src) attribute of an HTML <image> element:

The Light bulb

Click the light bulb to turn on/off the light

JavaScript can change most of the attributes of any HTML element, not only images.

JavaScript: Changing HTML Styles

Changing the style of an HTML element, is a variant of changing an HTML attribute.

Example

```
x=document.getElementById("demo")  //Find the element
x.style.color="#ff0000";           //Change the style
```

Try it yourself »

JavaScript: Validate Input

JavaScript is commonly used to validate input.

Example

```
if isNaN(x) {alert("Not Numeric")};
```

Did You Know? JavaScript and Java are two completely different languages, in both concept and design.

Java (invented by Sun) is a more complex programming language in the same category as C.

ECMA-262 is the official name of the JavaScript standard.

JavaScript was invented by Brendan Eich. It appeared in Netscape (a no longer existing browser) in 1995, and has been adopted by ECMA (a standard association) since 1997.

JavaScript is the world's most popular programming language. It is the language for HTML and the web, for servers, PCs, laptops, tablets, smart phones, and more.

JavaScript is a Scripting Language

A scripting language is a lightweight programming language.

JavaScript is programming code that can be inserted into HTML pages.

JavaScript inserted into HTML pages, can be executed by all modern web browsers.

JavaScript is easy to learn.

```
document.write("<h1>This is a heading</h1>");

document.write("<p>This is a paragraph</p>");
```

You can only use document.write in the HTML output. If you use it after the document has loaded, the whole document will be overwritten.

JavaScript: Reacting to Events

Example

```
<button type="button" onclick="alert('Welcome!')">Click Me!</button>
```

The alert() function is not much used in JavaScript, but it is often quite handy for trying out code.

The onclick event is only one of the many HTML events you will learn about in this tutorial.

JavaScript: Changing HTML Content

Using JavaScript to manipulate the content of HTML elements is a very powerful functionality.

Example

```
x=document.getElementById("demo")  //Find the element
x.innerHTML="Hello JavaScript";    //Change the content
```

You will often see document.getElementByID("some id"). This is defined in the HTML DOM.

The DOM (Document Object Model) is the official W3C standard for accessing HTML elements.

You will find several chapters about the HTML DOM in this tutorial.

JavaScript: Changing HTML Images

This example dynamically changes the source (src) attribute of an HTML <image> element:

The Light bulb

Click the light bulb to turn on/off the light

JavaScript can change most of the attributes of any HTML element, not only images.

JavaScript: Changing HTML Styles

Changing the style of an HTML element, is a variant of changing an HTML attribute.

Example

```
x=document.getElementById("demo")  //Find the element
x.style.color="#ff0000";          //Change the styleJavaScript: Validate Input
```

JavaScript is commonly used to validate input.

Example

```
if isNaN(x) {alert("Not Numeric")};
```

Did You Know? JavaScript and Java are two completely different languages, in both concept and design.

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JavaScript Form Validation

JavaScript can be used to validate data in HTML forms before sending off the content to a server.

Form data that typically are checked by a JavaScript could be:

has the user left required fields empty?

has the user entered a valid e-mail address?

has the user entered a valid date?

has the user entered text in a numeric field?

Required Fields

The function below checks if a field has been left empty. If the field is blank, an alert box alerts a message, the function returns false, and the form will not be submitted:

```
function validateForm()
{
var x=document.forms["myForm"]["fname"].value;
if (x==null || x=="")
  {
  alert("First name must be filled out");
  return false;
  }
}
```

The function above could be called when a form is submitted:

Example

```
<form name="myForm" action="demo_form.asp" onsubmit="return validateForm()"
method="post">

First name: <input type="text" name="fname">

<input type="submit" value="Submit">

</form>
```

E-mail Validation

The function below checks if the content has the general syntax of an email.

This means that the input data must contain an @ sign and at least one dot (.). Also, the @ must not be the first character of the email address, and the last dot must be present after the @ sign, and minimum 2 characters before the end:

```
function validateForm()

{

var x=document.forms["myForm"]["email"].value;

var atpos=x.indexOf("@");

var dotpos=x.lastIndexOf(".");

if (atpos<1 || dotpos<atpos+2 || dotpos+2>=x.length)

 {

 alert("Not a valid e-mail address");

 return false;

 }

}
```

The function above could be called when a form is submitted:

Example

```
<form name="myForm" action="demo_form.asp" onsubmit="return validateForm();"
method="post">

Email: <input type="text" name="email">

<input type="submit" value="Submit">
```

</form>

What is XHTML?

XHTML is a web language used to write webpages. With XHTML, you decide where to arrange text and graphics on web pages as well as their structure and layout. XHTML is designed to specify the logical organization of a webpage.

XHTML stands for Extensible Hyper Text Markup Language. It is the next phase in the evolution of HTML. The last version of HTML before XHTML was HTML 4.01. The first version of XHTML was XHTML 1.0, and the current version of XHTML is XHTML 1.1. XHTML is alot like HTML, in fact the same tags are used in XHTML that are used in HTML. Fundamentally, XHTML is HTML with a stricter syntax and standards for cleaner and more efficient code. While it has not done so yet, XHTML is aimed to eventually replace HTML.

XHTML documents have a file extension of .htm or .html. It is better to use the .html extension as that is the modern standard.

Contents

Adobe Dreamweaver

Adobe Dreamweaver is one of the most popular professional web development software packages. Dreamweaver is a complex product suitable for everything from simple page design to development of dynamic pages written with ColdFusion, PHP, ASP, CSS, XML, XSLT, and JavaScript.

Adobe's Dreamweaver is far more than a simple HTML editor. With its support for a great number of scripting languages (PHP, ASP, CSS and more), Dreamweaver is the most powerful, most fully featured web developer tool.

Available for both Mac and Windows operating systems, this cross platform development tool allows users to preview websites in their web browsers. It combines a great WYSIWYG editor, an FTP client, and a convenient scripting environment, which supports advanced autocomplete and script formatting options. Also, the latest CS4 version features a Live View mode which allows the designers and the developers to view their changes in real time - whenever they make a change to their website's code, the Live View will give an instant feedback to their changes. This is a great time-saving feature, which can help the professionals avoid errors and which allows them to easily experiment with different sets of code.

What is Dreamweaver?

Dreamweaver CS3 is a powerful Hypertext Markup Language (HTML) editor used by professionals, as well as beginners. The program makes it easy for designers to create visually attractive, interactive Web pages without having to know HTML or JavaScript. However, Dreamweaver CS3 enables the experienced professional to write and edit HTML using the code editor. Dreamweaver also gives the opportunity to create web pages and learn HTML coding as you go along, by giving you the option of a split screen with code and design.

If your department doesn't already own a copy of Dreamweaver, you may talk to your IT Department about downloading a free 30 day trial from the Adobe website at

Before you start with Dreamweaver.

There are a few things that need to happen before you start your web page in Dreamweaver.

The very first thing you need to know is your audience. Who is your target audience? What will they be looking for in your website? Will they be looking for entertainment, information, or education? What type of equipment do they use?

When you have that information, you need to plan out your website. What information will go on the home page? How many pages will your site have? How will you navigate around the pages? One of the best features about a web site is that they are not linear, but hypermedia. Websites are like a CD compared to an audio tape. They can be accessed in different sequences

depending on what each person is looking for in your website. What images or other objects will you want included in the site? A good way to lay all this out is to use sticky notes and lay them out to see how your site will flow, and what your layout will be. You may then want to create a flow chart that will show how your pages will be linked.

Next, gather all your content, such as any documents, images, movies, scripts, etc that will

Once you have this information, you can begin to create your site by setting up the folders you will need for the site. Start with the **root folder** (the site folder) and everything else will need to go in this one folder. Even a small site must have a root folder and should also have an images folder and maybe even a content folder. Larger sites may have those folders and then go on to add other subfolders for each section of the web site. Each website must have its own root folder.

Because some browsers read text **case sensitive** it is a good idea to have all your file names in lower case letters. To make them more readable it is acceptable to use the underscore _ to separate words in your names. It is best for your **home page to be named index.htm**. Each website has a unique address or URL (Uniform Resource Locator). A browser will recognize index.htm as the home or opening page of your website. It is possible to locate a home page with alternate names, but the URL would have to be typed out including the home page name, including the file extension. In other words, to locate the home page named index.htm you would type in an address of http://www.website.com. But if your home page is named mysite.htm, you would have to type http://www.website.com/mysite.htm. This is not imperative, but using the index file will make it more easily accessible to others. Also Dreamweaver automatically recognizes index.htm and you do not have to go through an extra step to designate the page as your home page.

HTML – Hypertext Markup Language

HTML is a set of codes that describe the appearance of web documents and all the objects on the page. Objects could be anything from text to images to movies. The HTML codes are called **tags**. The tags are enclosed with the **<** and **>** symbols so the programs reading them recognize that they are tags. Most items have an opening tag < > and a closing tag < />. For example <title> This is the title </title>. The tags signify the beginning of an item and the end of that item. Each item is called an element. Each element can have attributes and the attributes can have values. Values follow an equal sign and are in quotes. HTML tags are not case sensitive, so it doesn't make any difference if you use upper or lower case letters, however lower case is the norm.

<ELEMENT ATTRIBUTE= "VALUE"> or, think of it this way:

<CAR MODEL="CAMRY" COLOR= "RED">

<SANDWICH BREAD="WHEAT">

All HTML documents are required to have certain elements.

<html> This designates the beginning of the document.

<head> This section contains the document title, keywords, meta tags, scripts

<title> Document title **</title>**

</head> This is the end of the Head section

<body> This designates the beginning of the Body section

All the content of the page would be in the body section

</body> This is the end of the Body section

</html> This is the end of the HTML document

The World Wide Web is overseen by a not for profit group called the **W3C** (World Wide Web Consortium). They have hundreds of members from many countries and many companies. They are dedicated to providing Interoperability on the web so everyone has equal access to the web. From the W3C website:

> The World Wide Web Consortium (W3C) is an international consortium where Member organizations, a full-time staff, and the public work together to develop Web standards.
> W3C's mission is:
>
> > To lead the World Wide Web to its full potential by developing protocols and guidelines that ensure long-term growth for the Web. http://www.w3.org/Consortium/Overview

One free online site that provides many tutorials with cut and paste examples is W3 Schools at http://www.w3schools.com/

A few common tags are:

<p> paragraph	 line break	<td> table data
<hr> Horizontal Rule (line)	<H1> Heading 1	<img> image
<a> anchor	<a HREF > link	non-breaking space

File Size, Download Time and Screen Resolution

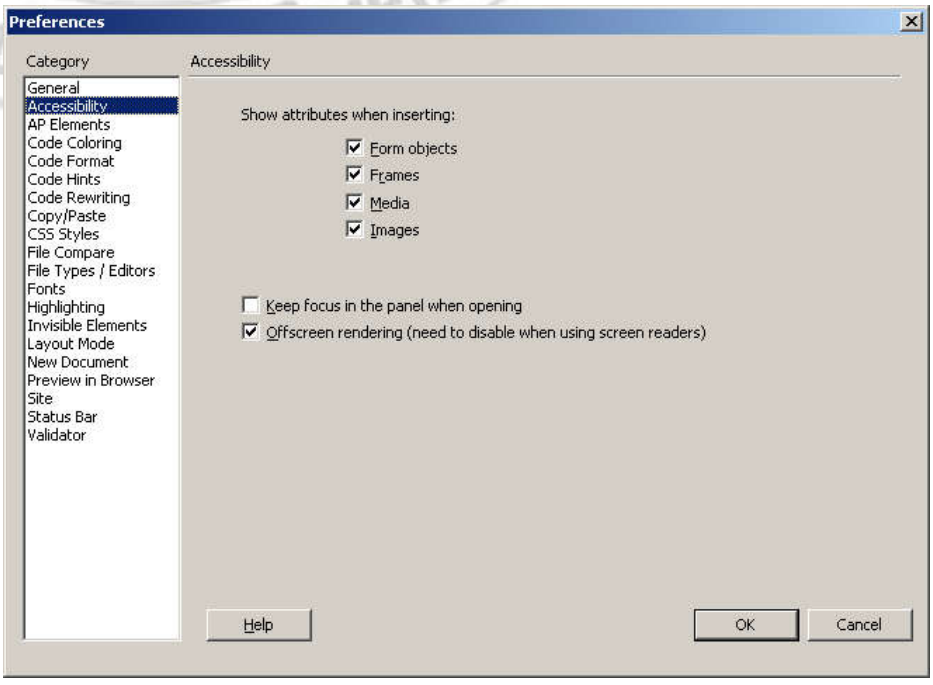
A couple of other items that need to be mentioned are download time and screen resolution. The web site you are creating is meant for viewing. To make it as accessible as possible it is a good idea to limit the amount of information on each page. Most viewers will not wait more than 8 seconds for a page to load. Larger files take longer to download. If it takes too long, they will just go somewhere else. The pages may need to be divided up into more pages with less information or images on each page or the images may need to be optimized (smaller file size) for the web.

There are various size monitors and many have different resolutions. Resolution (for monitors) has to do with the number of pixels (colored squares) across and down the screen. Today's monitors can be set to various resolutions. Some older monitors are set for a page resolution of 640 pixels wide x 480 pixels high. Currently many monitors are set to a resolution of 800 x 600 or, like the monitors in the training room, 1024 x 768. Viewers do not like to have to scroll side to side so some website developers limit the page size to less than 800 pixels, usually 760 pixels to be safe. Before creating your web site you need to determine who will be viewing the site to decide the page size you want to use. To be absolutely safe you may still want to create pages for the 640 pixel wide pages. When you are choosing images for your web site, look at the pixel dimensions of the image. For example a digital camera may take a picture that is 3000 pixels wide. To put that image on a web site that image would have to be downsized quite a bit to fit on a page. Use a graphics program such as Photoshop or Fireworks to optimize your images. You want to create them to the proper size outside of Dreamweaver and then bring them into your web site at the proper screen size and the smallest file size.

Accessibility

To keep in line with Accessibility guidelines and regulations, Dreamweaver has some "helps" that you can use to remind you to add certain properties and attributes to make your pages more accessible to those with visual or other disabilities.

From the **Edit** menu choose **Preferences** to get the box shown on the right.



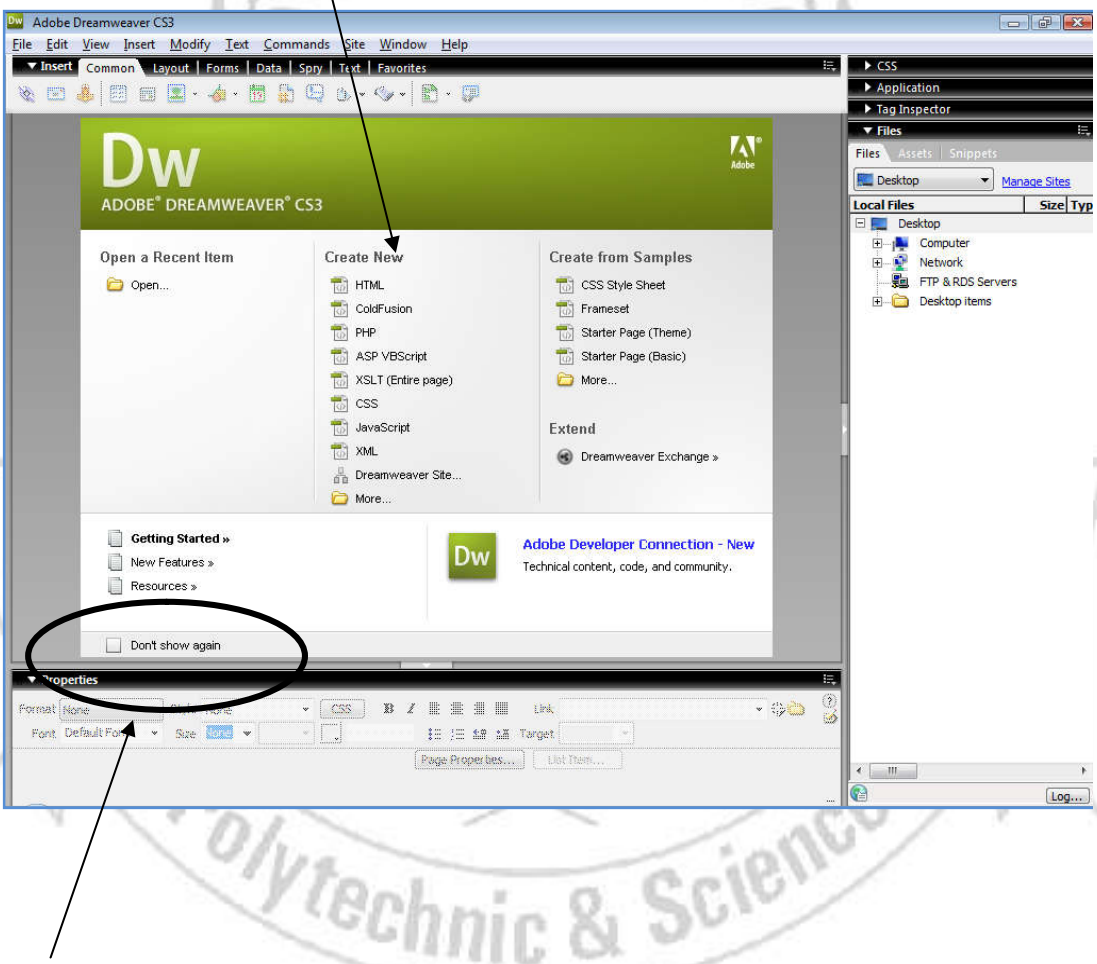
Then click on the **Category** called **Accessibility**.

By default the four top checkboxes are checked. If these are not checked, check them. When you are creating your web pages Dreamweaver will automatically open dialog boxes to allow you to add accessibility options and will alter your code appropriately. The other two check boxes do not alter the code, but change how the program works, so these can be left as is.

Dreamweaver Start Page

Open existing pages

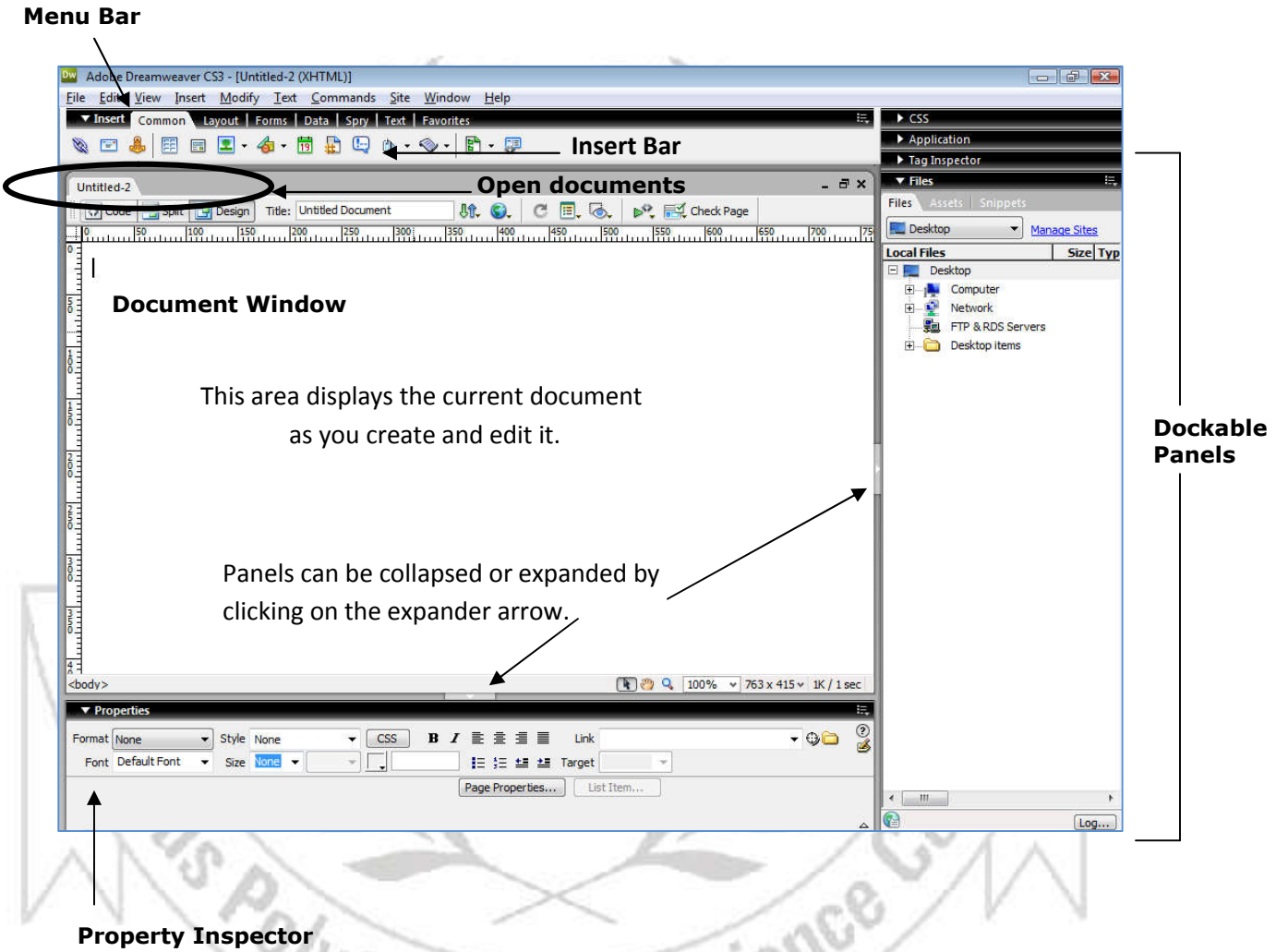
Create new sites or pages



Start Page - Welcome Screen

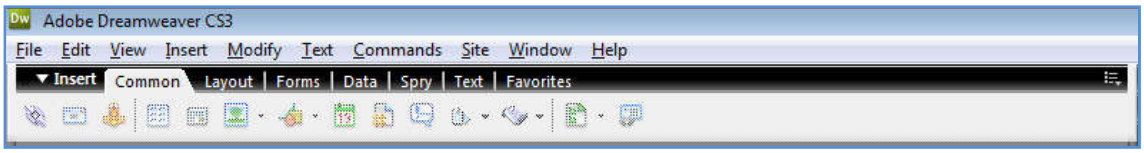
This is the page you get when you first start up Dreamweaver CS3. This gives you the option to open many different kinds of pages. The start page can open each time you start Dreamweaver or it can be disabled by checking the Do not show again box. If you decide later you want it back go to **Edit > Preferences > General** and check the Show start page option.

The Dreamweaver CS3 Designer Workspace



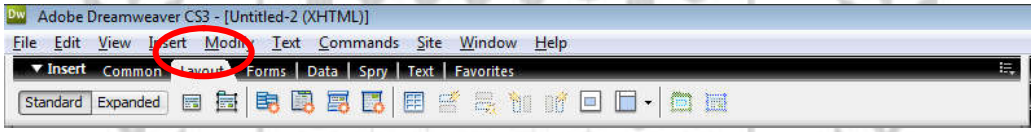
This is the new Designer layout of the Dreamweaver CS3 where the panels are docked on the right side. There is also an alternate Coder workspace that is similar to the HomeSite/Coder-Style workspace for those that prefer to do most of their web page creating in the HTML code view. This can be changed at startup or by choosing **Change Workspace** in the **Preferences** area under the **Edit Menu**.

The Insert Bar

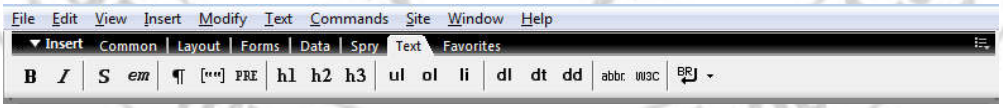


Insert Bar – This is used to **Insert** components in your web page. Click icon to add images, links, forms, create layouts. All items on the Insert Bar can be found on the Insert Menu, but it is usually easier to use the buttons on the Insert Bar.

Each **Category** offers different object to add to your page.



This is the **Layout** category. This gives options for laying out the web page. In **Standard** mode, tables can be inserted by rows and columns looking like they would in a browser. **Expanded** mode temporarily adds cell spacing and padding so editing will be easier, but does not appear as the table would in design view.



Each category has a group of items each with buttons to let you add or edit objects or text.

The **Text** category allows insertion of text and paragraph formatting tags.

The **Forms** category includes items such as text field, radio buttons, and list menus

The Status Bar

The left side of the document **Status Bar** has a **Tag Selector**. This allows you to select an item by clicking on the tag.

The right side of the status bar gives information about the document, including the size of the document window and approximate download time. Dreamweaver uses a 28.8

The Document Toolbar

The **Document Toolbar** is where you can change your document window views

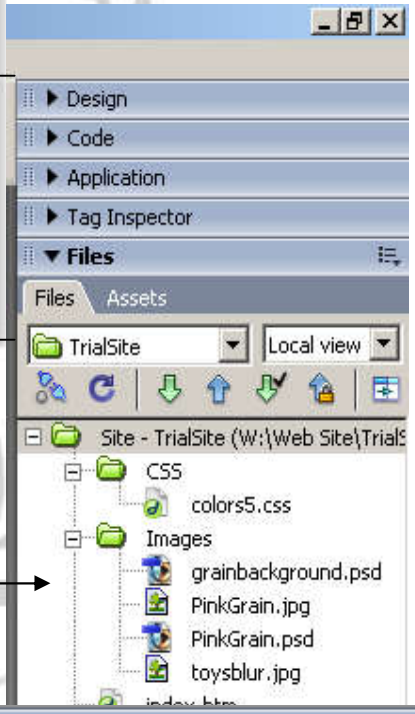
Code shows HTML code only

Split shows both the design view and the code view

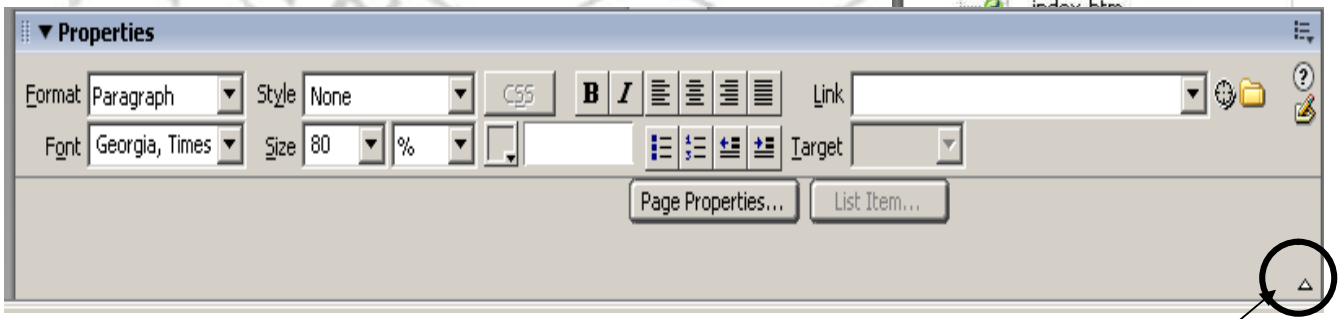
Enter your page **title** here. The page title and the file name do not have to be the same.

Click here to view your page in a true browser or use the

Docked Panels



Files Panel
(similar to Windows Explorer)

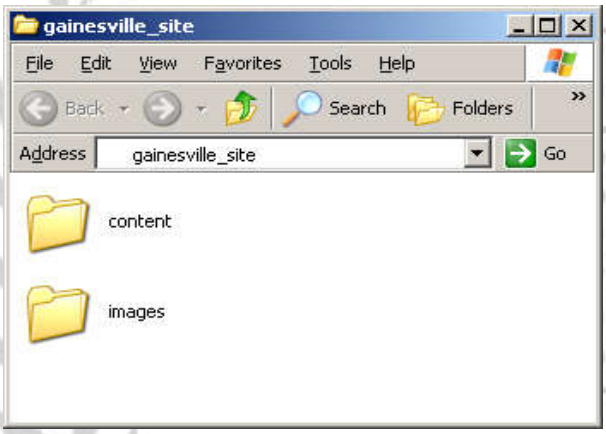


The **Property Inspector** is context sensitive. It changes for each object or text item, and shows the attributes for that item. It gives an easy way to view and edit the properties of each item. The expander arrow will expand or collapse the property inspector to show or hide properties. Any time the property inspector is not visible, go to **Window > Properties** on the Menu bar.

Another feature of Dreamweaver CS3 is the right-click context menu. When you are working on an item a right-click will bring up a menu with the most useful commands and

Starting the Web Site

The first step in building a web site in Dreamweaver is to define the site. At this point, the site is already planned on paper. Now, create the folders and sub folders on the hard drive. You want to have something similar to folder below, where gainesville_site is the **root folder** and content and images are your subfolders. If you have all your images and content gathered, it is best to put it all in the proper folders at this time. Now we can define our site with Dreamweaver by specifying what the names of the folders are, and where they are located.

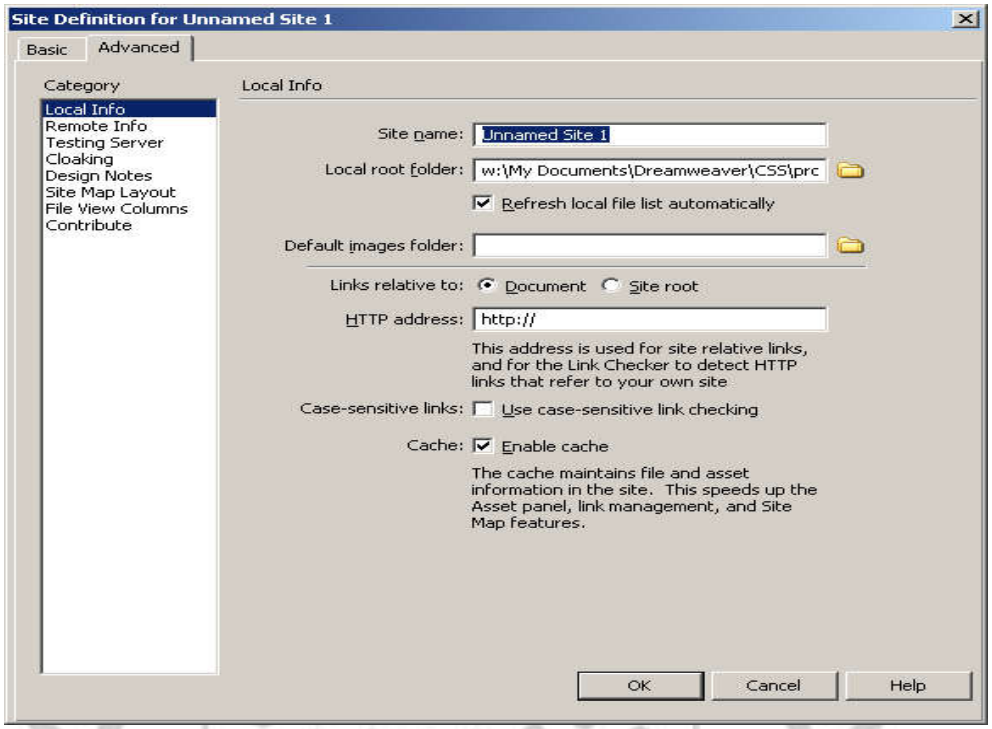


To define your site in Dreamweaver:

1. Open Dreamweaver CS3.
2. Go to the menu and choose **Site > Manage Sites**.
3. Click **New**.
4. Choose **Site**.

When the site definition dialog box opens choose the **Advanced** tab.

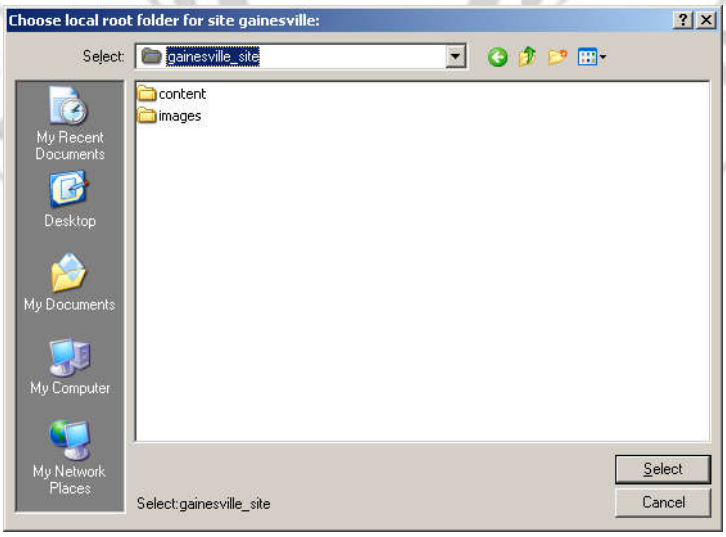
(The basic tab will work, but it has more options than we need at this time.)

5. 

Choose **Local Info**.

6. In the **Site Name** Text box, type the name of your website (i.e. Gainesville).

7. In the **Local Root Folder** area, click on the **folder icon**. Navigate to where your root folder is stored. You should see the **contents of your root folder**



8. Click on **Select**.

9. Make sure **Refresh Local File List Automatically** and **Enable Cache** are checked. (Unless you are working on a very large site, then uncheck Enable Cache)

10. Click **OK.** Click **OK** if the "initial cache" message pops up.

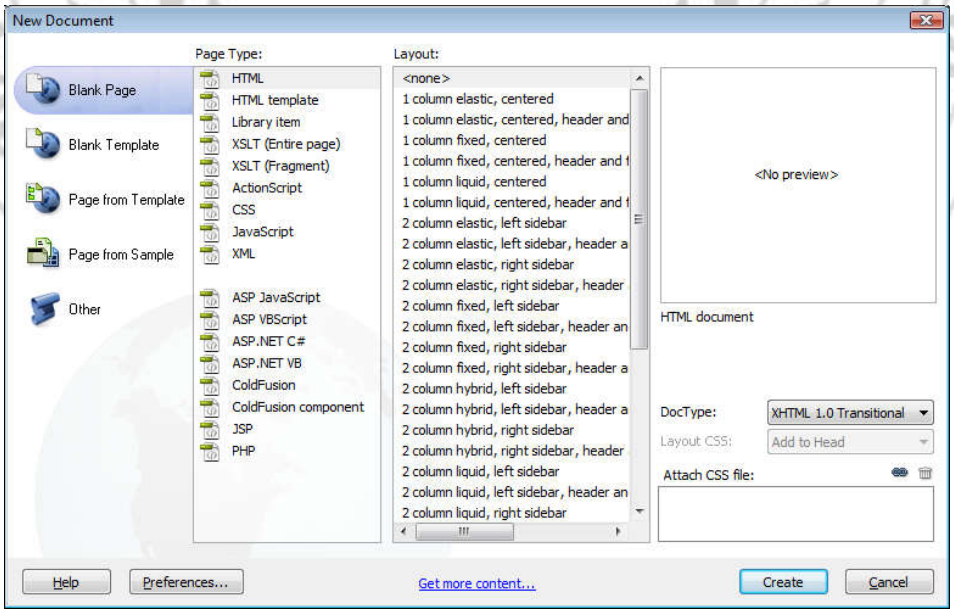
11. Click **Done**.

Creating the Home Page

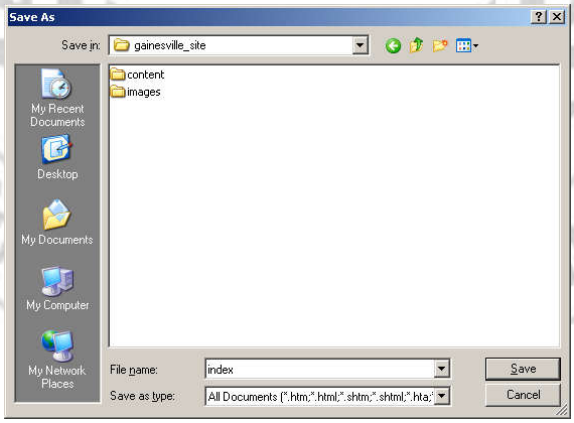
Begin by creating a new page

1. From the menu, choose **File > New**.
    a. Or use the Start Up page and Choose New HTML page

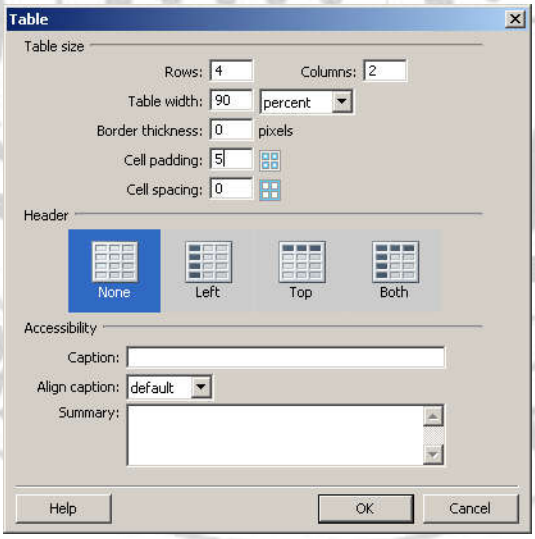
2. Choose a Blank page and HTML then click **Create**.



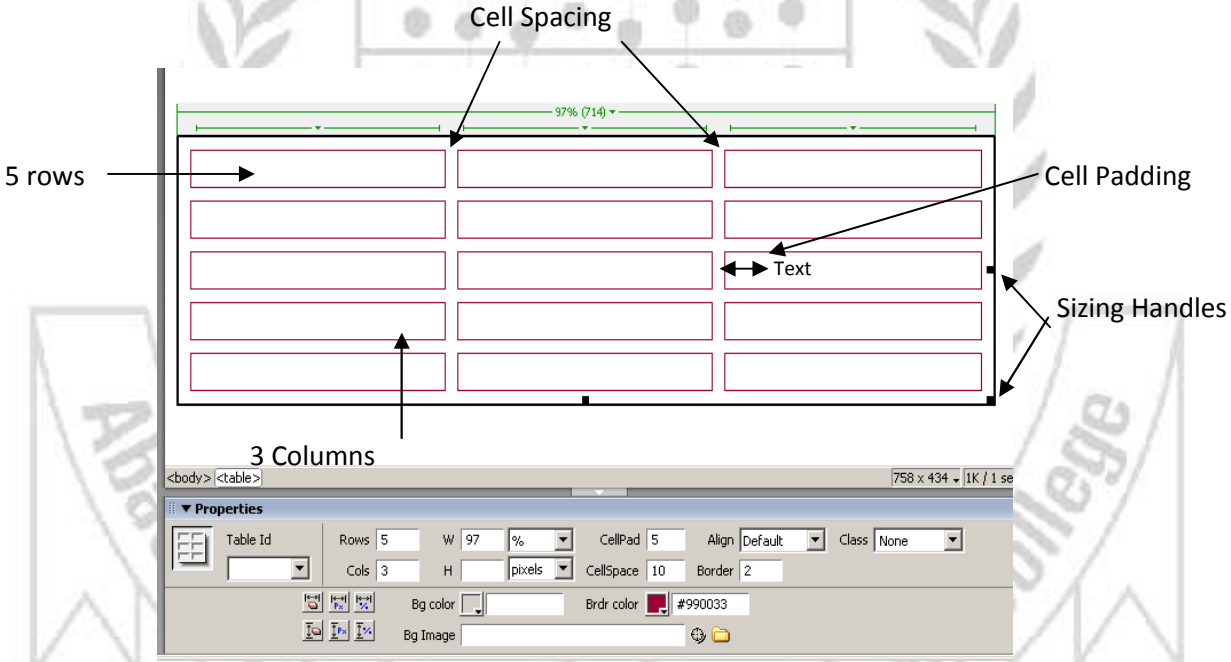
3. The next thing you do is **save** your page. It may look like an empty page, but if you look at the code view, you will see there is already information about your page. Use either **File>Save** or **CTRL + S**. On the **open document tab** if a ***** is showing it means the page has not been saved since changes have been made. It is always best to save your work continually as you go along. Remember this will be the home page, so we want the file to be named **index.html**. The best practice is to name your files using all lower case letters with no special characters except the underscore (_) and no spaces.



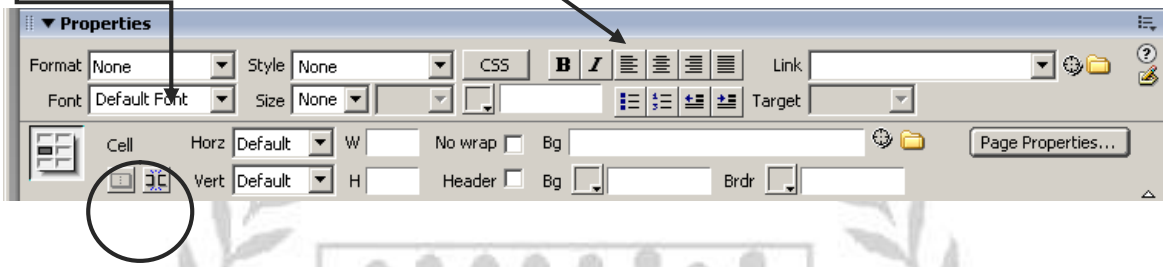
4. In the **Document Toolbar** type the **title** of your web page. Call this Gainesville Home Page or My Home Page. Unlike filenames, the title can contain spaces and/or characters. Use a unique and descriptive title for your page. This title shows on the blue title bar when you are viewing the page on the web.
5. Press **Enter** to apply the title to your home page.
6. This page will have a **table** in it to organize information. Tables are set up with rows going across the page and columns going down the page. Cells make up the table and have properties called cell spacing which is the space between each cell and cell padding which is the space from the cell wall to the information placed inside the cell.
7. Go to the **Common Category** of the **Insert bar**. Choose the **Table button**.
8. When you choose the table button the **Table dialog box** pops up. Enter the number of rows (4) and columns (2).

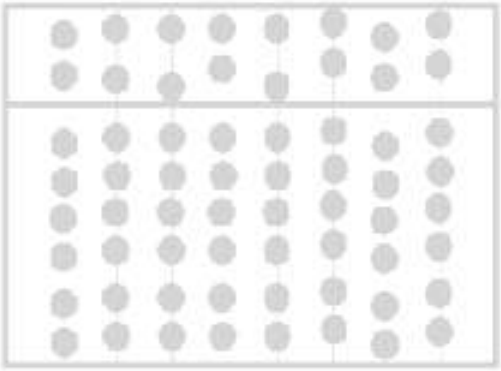


9. If you do not want a **Border** to show, you would enter 0 in the border text box. For this project we will set **Cell padding** (space around the content, but within the cell) to 5 and **Cell spacing** (space between the cells) to 0. Table widths can be in pixels or in percentages (a % of the screen size). You can set the table width in pixels for a fixed width table or in % for a flexible table. For example a table with a 75% width will be 75% of the browser window no matter how the browser is resized. If you don't set a table width, the table will expand to fit the content and in a browser window will expand to fill the page. For today's project, set the **Table Width** to 90%. If necessary, the table properties can be changed in the **Property Inspector** at any time. Also the width and height can be changed by clicking and dragging the borders. It is not necessary to set a height for a table.



10. To create the proper look for our home page, we will merge the cells in the top row and the two middle rows in the 2nd column. To merge cells, select the cells and click on the **merge cells** button on the **Property Inspector** (or go to the **Modify Menu** and choose **Table>Merge cells**). Make sure the table is selected and choose to center it using the alignment buttons in the property inspector.

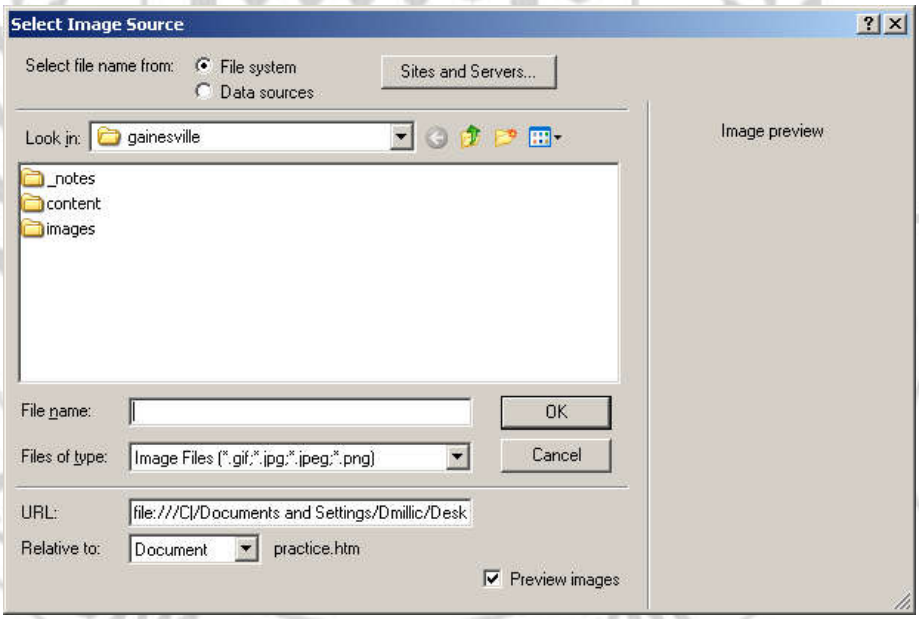




Adding Content to a Page

1. In the first cell of your table, type the heading for the page. The **Delete** key, the **Backspace** key and **Edit>Undo** all will undo actions and remove items from your page. To go to the next line, hit the **Enter** key. This will create a new **paragraph** which will give some white space above and below the text. If you want to go to a new line, but not create a new paragraph, hold down the shift key and press enter. This will create a **line break** but not a new paragraph.

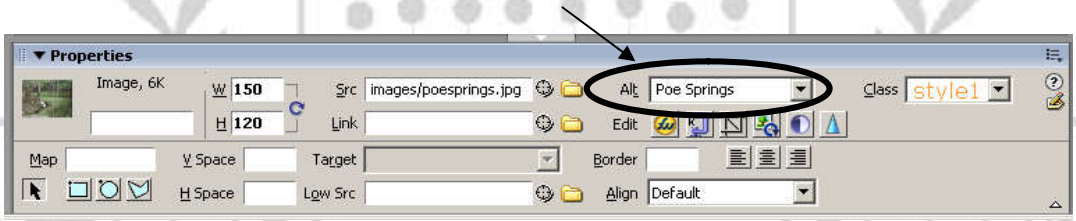
2. To enter an image, go to the **Common Insert Bar**, and choose the image button (it looks like a tree). The **Image Source** dialog box will open. This will show a preview of selected images.



3. Choose your images folder. Choose the image you want and click **OK**.

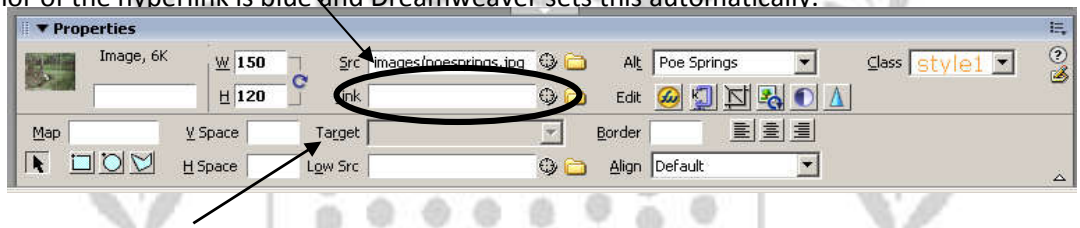
Your image is now on the page where the cursor (insertion point) was located. The Image can be resized. The best practice however, is to have your picture sized properly before inserting it into your page by using a graphics program. Alternatively, you can just find the image in your files panel and click hold and drag the image file into place.

4. Enter an **alternate text** for your picture. This is a text equivalent that will display if the picture does not load properly or if the person viewing your page does not have graphic capabilities, or for those "reading" the page using a screen reader. This is one of the accessibility options available, and is a good practice. Enter the description of your image in the **Alt** text box in the **Property Inspector**. If your image has a text equivalent elsewhere on the page, such as a caption, or if the image is purely decorative, using the Alt drop down set the Alt attribute to <empty>.



5. To direct your audience to other websites, make some **hyperlinks**. Type something descriptive such as **Go to the City of Gainesville website.** Insert a paragraph break by pressing the **Enter** key. The enter key applies a paragraph break which gives white space above and below the text. (Remember, to move to the next line without that extra space, use **shift + Enter**.)

6. Select the words "City of Gainesville". In the **Property Inspector**, in the **Link** text box, type in the full **URL** of the link for example http://www.cityofgainesville.org/ and press the **Enter** key. This will enter a **hyperlink** in your document and will show up underlined. Typically the color of the hyperlink is blue and Dreamweaver sets this automatically.



7. The link is now a working link and that is all that needs to be done. However, in the **Target** dropdown box there are choices to make the link open in a new browser. Choosing **_Blank** in the target drop down will make the link open in a new browser window.

8. Press **Enter** to make another paragraph and repeat the hyperlink process for the remaining links.

9. Add footer information to the page. Items such as Created by, Copyright info and a Last Modified date for example. To add the date, place your cursor in the last cell. Then, using the **Common Insert bar,** choose the **Date** icon. The date can be in many formats and if you check the box on the bottom it will update automatically each time the page is saved.

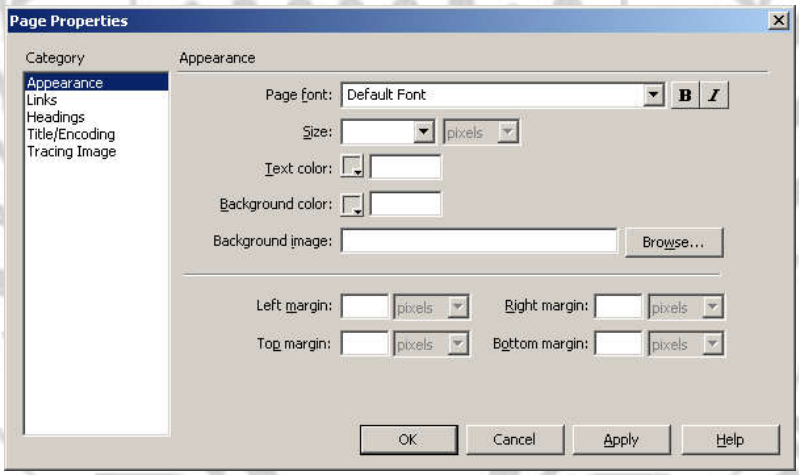
10. Format the headings on the page by selecting the text and using the **Format** drop down box in the **Property Inspector**. There are several heading options. We format the headings to give the headings meaning. Formatting a specific heading will make the content more meaningful to search engines and will assist screen readers.

Save and Preview your page.

Styles

To make the page look better and/or more appealing, we add style to our page. We can do this in different ways. One way is to use the property inspector and add size and color to text or other objects on the page. A better more efficient way to add style is to use CSS or Cascading Style Sheets. This is covered in a later workshop. Check out the handout for the CSS class at

Look at the Page Properties by clicking on the button (labeled **Page Properties**) on the **Property Inspector**. It will open the dialog box below and we will work on **Appearance**. (Another way to access Page Properties is to go to the Menu - **Modify>Page Properties**.)



For this project we will be setting a background color for our page. Click on the small square next to **Background color**. The **color picker** pops up and gives the option to choose any color. Choose a color and press the **Apply** button. This will apply the background to the page and show what the page will look like. You have the option of changing it as many times as you want. This project is using color #FFFFCC. When you have the color you want press the **OK** button. (Although our monitors will theoretically display over 16 million colors, there are only 216 **"Web Safe"** colors. Those are the colors that will normally look the same in Internet Explorer, Firefox, Safari or Netscape on PC's or Macs. Web safe colors can be recognized by the hexadecimal value. Each web safe color will have 3 pairs of numbers consisting of 00, 33, 66, 99, CC, FF. Any time you are picking a color, you will see the hexadecimal value displayed. The cubes in the color picker are the 216 colors traditionally considered to be web-safe. Most current monitors can see all 16 million colors so this is not as important as it once was.)

Creating additional pages

When creating new pages, there are a couple of options. You could start the same way you did with the first page by opening a **new blank html page**. Another way is to duplicate the original page and delete what you don't need and add the new content. One way to duplicate the page is to open it in Dreamweaver and then use the **Save As** command in the File menu giving the page a new name. Another way is to right click the page name in the files panel, choose edit and then duplicate.

After creating the new page and giving the page a new name

- Delete all unnecessary information
- Merge or split cells as necessary
- Add content – Format as necessary (ie. H1)
- Add images
- Give the page an appropriate title and save

For the second page in our site we are going to add a text file (city_facts.txt) and a new nested table to add a few pictures to the bottom of the page. The .txt file can be selected in the files panel and dragged onto the page or it can be opened by double clicking in the files panel and then copied and pasted into the page. Dragging files may create extra line breaks that will need to be deleted. Copying and pasting may take an extra step, but seems to add fewer extra spaces.

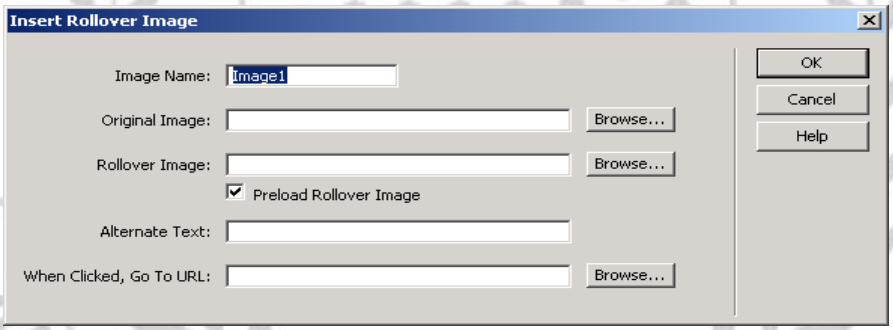
For the third page we will use an existing table of facts created in Word (services.doc).

As with the .txt file, the .doc file can be selected in the files panel and dragged onto the page or it can be opened by double clicking in the files panel and then copied and pasted into the page.

The last page in the site will be a map page with a **rollover image**. A rollover image is two images located in the same space. One image is the base image. Then, when the mouse is over the image the second image shows. Move the mouse and the first image takes its place again.

1. Using your first page, create a new HTML page. Save the page. Give it a title (In the **Document toolbar).** This will be our Map page. Type and format the Heading (Gainesville Driving Directions) on the page.

2. Click to place your cursor in the proper table cell. In the **Common Insert bar,** click on the small triangle next to the **image button**. In the drop down box, choose **Rollover Image**.



3. Use the **browse** buttons to locate the images. Select the images to go on the page. The standard non-rollover picture is the Original image. Also check **Preload Rollover Image** to make the image cache in the browser so the picture will load quickly. As with all images, type in an **alternate text.** Click **OK**. Save the page and preview in the browser. Test the rollover image to make sure the pictures swap out as the mouse rolls over the image.

4. Add the directions text in the proper cell.

Adding a Navigation Bar

Once you have a group of web pages you want to make sure that anyone looking at the pages can maneuver through your site at will. We will use a table to add a **navigation bar**.

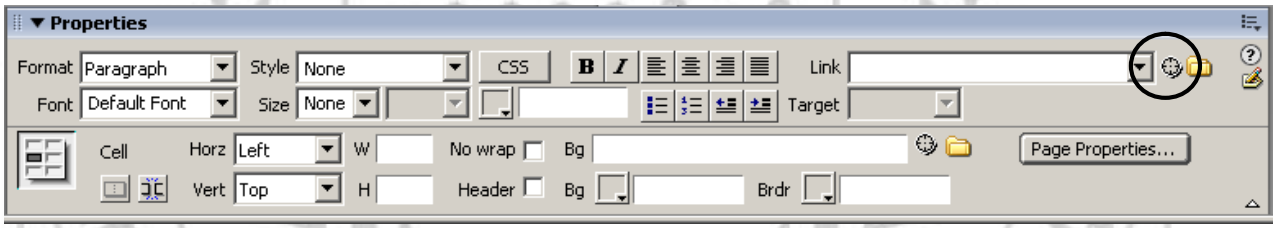
1. Open your Home page. **Insert** a **table** with 1 row and the # of columns to match the number of pages in your site. Use 0 for **border**, **cell spacing** and add 10 in **cell padding**. Set the **width** at 90%. Click OK.

2. The table is on the page and selected. While it is still selected, use the **Property Inspector** to **align** the table on the page by choosing **Center** from the **Align drop down box**. If the table is not selected, it can be selected easily by clicking on the tag in the **Tag Selector** on the **Status bar**.

3. Click in the first cell and drag your cursor through the cells to select the whole row. Click on the **Align Center** button on the **Property Inspector** to align the contents of all the cells to the center.

4. Type a name for each page in each cell.

5. Select the name in the first cell. Using the **Point to File** button in the property inspector next to the **Link text box**, click hold and drag to the proper file in the file panel. The **Point to file** button will automatically fill in the **Link box** for any file in your file panel.

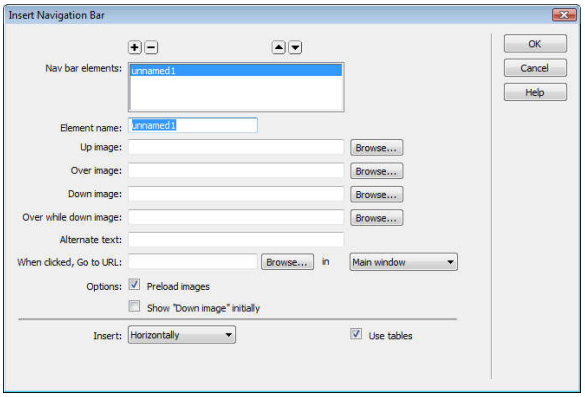


6. Repeat the process for each page.

7. Save the page and preview it in the browser. Make sure all the links work properly. Now we need a way to get back to the home page and move around the other pages.

8. On the Home page select the Navigation table by clicking in the table and then selecting the **table tag** in the **tag selector** in the **status bar** at the bottom of the page. Copy the table (Edit> Copy or CTRL+C). Open your other pages and paste (Ctrl + V) the table on each of the other pages in your web site.

Another option is to use Dreamweaver's **Navigation Bar**. This requires four images for each link that are exactly the same size. You need an image for Up, Over, Down, and OverDown. Once you have all four images prepared for each link, go to the Image insert button and choose Navigation Bar.



Give the link an Element Name and then browse for each image. Add the URL for the link and make sure Preload Images is selected. You may want to select Show "Down Image" initially for the page you are currently working on. Decide if you want the bar to be vertical or horizontal and whether you need it to be in tables. Once the first link is finished, click on the plus to add additional links. When finished, click OK and you will have a new Navigation Bar on your page.

When your bar is finished, you can select the Navigation Bar and paste it on each of your other pages. Then from the Modify menu item, choose Navigation Bar and then you can change the initial state of the button for each current page.

Test the Site

Before you put your site on a server it is best to test it on your local machine.

1. Open your **Browser** (Internet Explorer, Netscape, Mozilla, etc.)
2. From the browser Menu bar choose **File > Open**. Locate your **root folder** and choose your home page (**index.htm**). Your site should open in the browser.
3. Test all the links, both the links to your pages as well as the external links to other sites. Test to make sure the email links works. (Don't send email; just make sure it brings up the email client.) Remember to get back to your site from other sites you may have to use the browser's **Back** button.

Post the website to a server

There are a few ways to get the website "live" and viewable by the public.

Many departments have a public folder that will allow you to copy your website in the folder and get a URL so anyone can navigate to the website with a browser.

Another way to post the site is to use FTP. That is a File Transfer Protocol. FTP is a process where the files are uploaded to a server and are then available for viewing.

Check with your department IT person as to how this would be done in your department.

Once you have a folder on the "live server" you can go to **Site** > **Manage** Sites to edit the remote site information. Then use the big blue Put arrow in the files panel to upload your files.

Many email servers allow a certain amount of space for personal websites.

Helpful Keyboard Shortcuts

Command	**Shortcut**
Save	CTRL + S
Copy	CTRL + C
Cut	CTRL + X
Paste	CTRL + V
Clear	Delete / Backspace

Another shortcut is to use the mouse right click. When you are working with an item on the page, if you right click on the item you will get a context menu. This has many commonly used options for that particular item.

You can create your own keyboard shortcuts.

- From the edit menu choose Keyboard shortcuts. Make a copy of the standard shortcuts (this way if you don't like the new shortcuts you can always get back to the original set.
- Give the copy a new name
- Choose a command you would like to create a new shortcut for, for example Save All
- Choose the keys you want to use.
    - If the key combination is already in use as a shortcut it will tell you and you can choose something else.
- When you are happy with your shortcuts click Change and then OK