



# Web Programming Essential & Webpage Design Revision

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4010 WEBPAGE DESIGN

251514 WEB PROGRAMMING ESSENTIALS

# Content Overview



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- Week 1: Web Development & the World Wide Web**
  - Week 2: HTML & A Business Website**
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  - Week 17: Metatags**
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# Week 1: Web Development & the World Wide Web

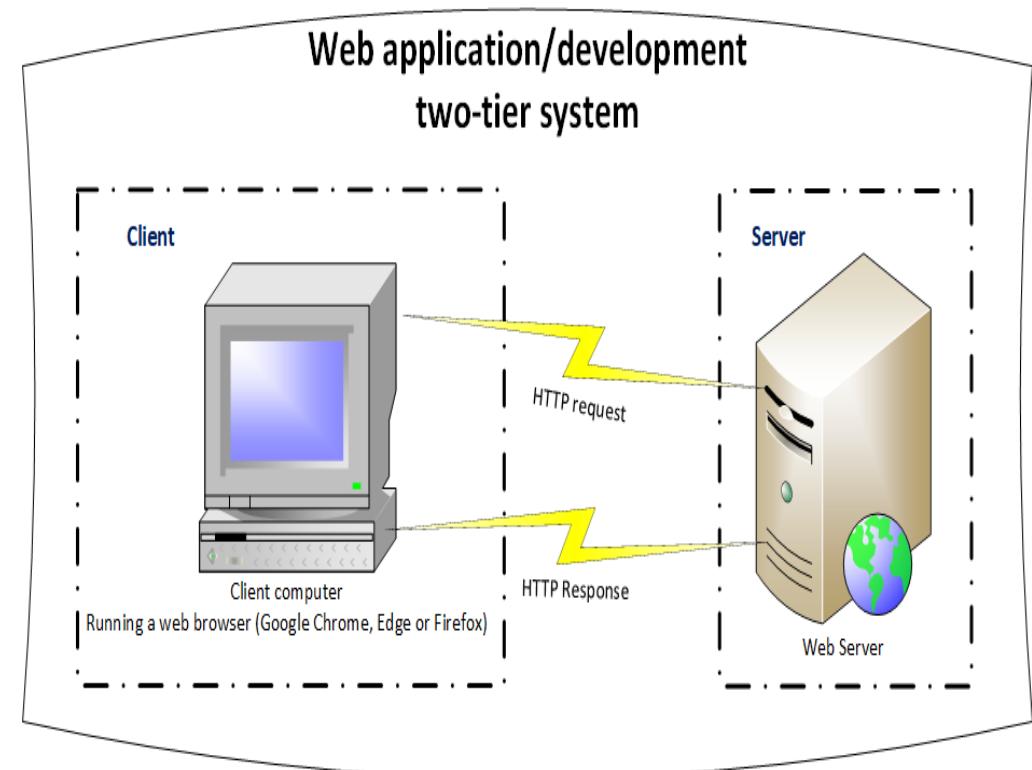
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- ❖ What is the Word Wide Web?
- ❖ How does the web works?
- ❖ What is Hyperlink?
- ❖ Where Does HTML fit in?
- ❖ Invention of HTML
- ❖ Short History of HTML
- ❖ Creating HTML Documents.

- The **Internet** is a worldwide collection of computers linked together for use by organizations, and individuals using communications devices and media
- **Data lines** that connect networks allow data to move from one computer to another.
- The **Internet backbone** is a collection of high-speed data lines that connect major computer systems located around the world
- An **Internet Service Provider (ISP)** is a company that has a permanent connection to the Internet backbone
- The World Wide Web, also called the **web**, is the service that provides access to information stored on web servers
- The web consists of a collection of linked files known as **webpages**
- A **website** is a related collection of webpages created and maintained by a person, company, educational institution, or other organization

# Week 1: Web Development & the World Wide Web

- A **home page** is the first document users see when they access a website
- A **hyperlink**, commonly called a **link**, is an element that connects one webpage to another webpage on the same server or to any other web server in the world
- A **protocol** is a set of rules that defines how a client workstation can communicate with a server
- A **server** is the host computer that stores resources and files for websites
- **Hypertext Transfer Protocol (HTTP)** is a set of rules for exchanging text, graphics, audio, video, and other multimedia files on the web
- **File Transfer Protocol (FTP)** is used to exchange files from one computer to another over the Internet
- A **web browser** is a program that interprets and displays Web pages and enables you to view and interact with a Web page
- Microsoft Internet Explorer, Mozilla Firefox, Google Chrome, and Apple Safari
- A **Uniform Resource Locator (URL)** is the address of a document or other file accessible on the Internet



# Week 2: HTML & A Business Website

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- ❖ Understand the difference between the World Wide Web and the Internet
- ❖ Understand the evolution for the HTML standard
- ❖ Gain an understanding of basic XHTML concepts
- ❖ Learn how to create a simple HTML document
- ❖ Learn how to view an HTML document
- ❖ Add a doctype declaration to an existing html document
- ❖ Learn how to print an HTML document

- **HTML**, short for **HyperText Markup Language**, is a programming language used to design and format web pages for viewing on the internet.
- **XHTML (Extensible HyperText Markup Language)** is a markup language that uses a standardized set of tags to format text in a way that web browsers can understand and display correctly

# Week 2: HTML & A Business Website

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Tag	Purpose	Example Usage
<html>	Root element of every XHTML document	<html xmlns="http://www.w3.org/1999/xhtml">
<head>	Contains metadata and links to resources	<head><title>My Page</title></head>
<body>	Holds the visible content	<body><p>Hello!</p></body>
<p>	Paragraph of text	<p>This is a paragraph.</p>
<h1>–<h6>	Headings (from biggest to smallest)	<h1>Main Title</h1>
<a>	Hyperlink	<a href="https://example.com">Visit</a>
<img />	Image display	
 	Line break	Line one Line two
<ul>, <ol>, <li>	Lists	<ul><li>Item</li></ul>

# Week 2: HTML & A Business Website

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## 1. Establishes Online Presence

- Acts as your digital storefront, accessible 24/7.
- Lets customers find you anytime, anywhere
- Builds visibility beyond your local area

## 2. Boosts Credibility

- A professional website signals legitimacy
- Helps you stand out from competitors who lack one
- Builds trust with potential customer

## 3. Showcases Your Brand

- Communicates your mission, values, and personality
- Reinforces brand identity through design and content
- Offers a platform to share your story and vision

## 4. Generates Leads and Sales

- Makes it easy for customers to contact you
- Encourages inquiries, bookings, or purchases
- Can be optimized for conversions with calls-to-action

## 5. Improves Search Visibility

- SEO helps your site appear in Google search results
- Attracts organic traffic from people searching for your services
- Expands your reach without paid advertising

## 6. Enhances Customer Service

- Provides answers to common questions (e.g., FAQs, hours, location)
- Reduces phone calls and improves staff productivity
- Offers a better user experience with instant access to info

## 7. Supports Marketing Efforts

- Central hub for digital campaigns, social media, and email marketing
- Tracks visitor behavior to refine strategies
- Enables retargeting and analytics for better ROI

## 8. Keeps Customers Updated

- Share news, promotions, and product launches
- Post blog articles or announcements
- Keep your audience engaged and informed

## 9. Offers Social Proof

- Display testimonials, reviews, and case studies
- Builds trust through real customer experiences
- Reinforces your reputation and reliability

## 10. Gives You Control

- You decide how your brand is presented
- Customize layout, messaging, and user journey

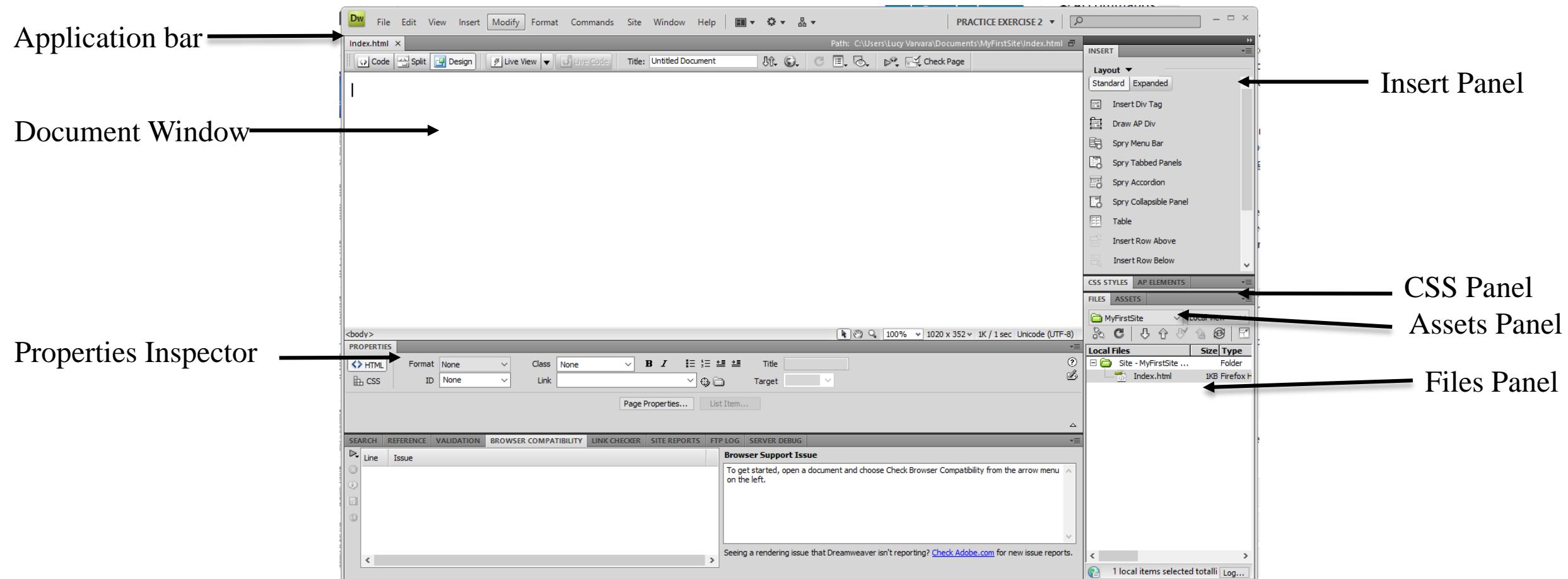
# Week 3: Web Theory & Dreamweaver basics

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- **The World Wide Web uses three protocols:**

1. **HTML(Hyper Text Markup Language)**: The code used to create and structure web pages.
  2. **HTTP(Hyper Text Transfer Protocol)**: A fast and simple protocol that retrieves HTML content from servers for web browsing.
  3. **URL(Uniform Resource Locator)**: The web address that points to the location of a document online, combining protocol, host, and path
- A **webpage** is a single document within a website, each identified by a unique **URL**
  - A **website** is a collection of interlinked webpages under one domain
  - The development relies on the same programming languages as webpages, like HTML, CSS, JavaScript, PHP, etc
  - **Adobe Dreamweaver** is a Website Design software program that offers more advanced features than typical HTML web and programming editors.

# Dreamweaver Workspace



# Week 4: Creating a website

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- ❖ Gain an understanding of the structure of basic websites
  - ❖ Gain an understanding of Dreamweaver sites
  - ❖ Gain an understanding of Site Definition dialog box
  - ❖ Learn how to define a new Dreamweaver site
  - ❖ Learn how to create HTML pages and folders
  - ❖ Learn how to create a home page
  - ❖ Learn how to insert titles into HTML pages
  - ❖ Learn how to view XHTML code in Code view
  - ❖ Learn how to preview and HTML page in a browser
- Basic website structure using Adobe Dreamweaver
  - How do you code a whole html page using Adobe Dreamweaver insert menu

# Week 5: Adding text and structure & CSS

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- ❖ Gain an understanding of the basic XHTML structure
- ❖ Gain an understanding of some of the basic that you need to know about text.
- ❖ Learn how to structure content
- ❖ Gain an understanding of XHTML lists
- ❖ Learn how to created number and bulleted lists
- ❖ Learn how to format text
- ❖ Learning how to copy and existing text into Dreamweaver
- ❖ Learn how to import an entire Word document into an HTML page

# Week 5: Adding text and structure & CSS

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## 1. `<!DOCTYPE html>` Declaration

- Declares the document type.
- Tells the browser you're using HTML5.

## 2. `<html>`

- The root element of the page.
- Wraps all the content.

## 3. `<head>` Section

- Contains metadata (info about the page).
- Includes:
  - `<title>`: Sets the page title (shown in browser tab).
  - `<meta>`: Describes page encoding, author, etc.
  - `<link>`: Connects to external stylesheets.
  - `<style>`: Adds internal CSS.
  - `<script>`: Adds JavaScript.

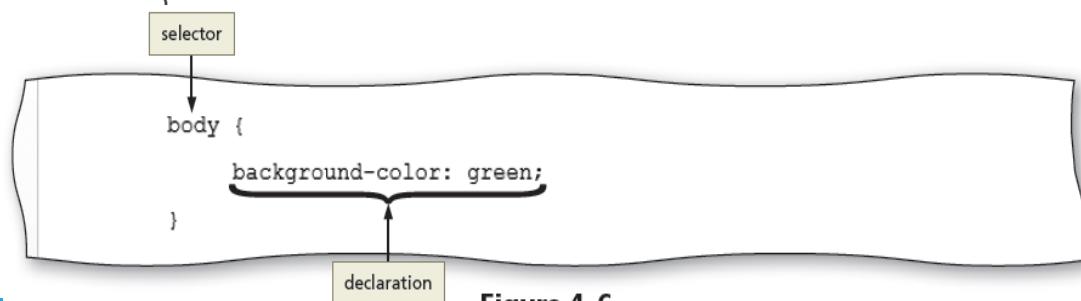
## 4. `<body>` Section

- Holds everything visible on the page.
- Includes:
  - Headings (`<h1>` to `<h6>`)
  - Paragraphs (`<p>`)
  - Images (`<img>`)
  - Links (`<a>`)
  - Lists (`<ul>`, `<ol>`, `<li>`)
  - Tables (`<table>`, `<tr>`, `<td>`)
  - Forms (`<form>`, `<input>`, `<textarea>`)

# Week 12: Cascading Style Sheet (CSS)

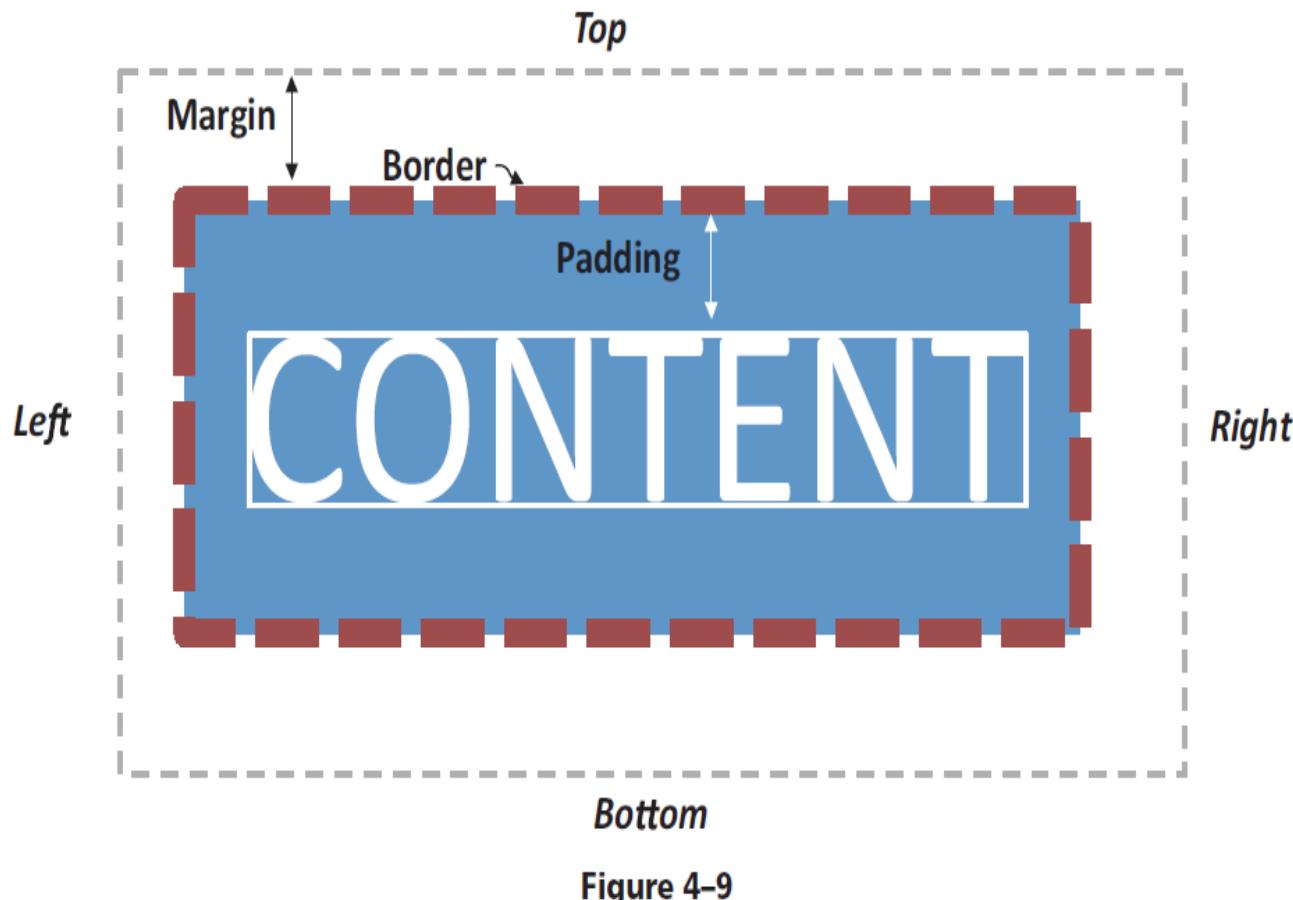
- A **Cascading Style Sheet (CSS)** is a stylesheet language used to control the presentation and layout of HTML elements on a webpage. It allows developers to separate content (HTML) from design (CSS), making websites easier to maintain and more visually appealing.
- A CSS rule is made up of two main parts:
  1. the **selector**
  2. and the **declaration block**.
- Here's a breakdown of its anatomy:

```
selector {  
    property: value;  
}
```



- **Inline style** – It is used to add a style to the start tag for an element, such as a heading or paragraph, using the **style attribute**
- An **embedded style sheet**, also called an **internal style sheet**, includes the style sheet within the opening `<head>` and closing `</head>` tags of the HTML document.
- An **external style sheet** – It is a CSS file that contains all of the styles that can be applied to more than one page in a website. An external style sheet is a text file with the **.css** extension

# CSS Box Model



- The **margin** provides passive white space between block elements or between the top or bottom of a webpage
- The **border** separates the padding and the margin of the block element
- **Padding** is the passive white space between the content and the border of a block element
- **Content** in the center or inner most layer of the CSS Box Model or HTML elements. Where the actual content of HTML resides such as text, images, tables, etc.
- An **id selector** uses the id attribute value of an HTML element to select a single element. A **class selector** is used to select elements that include a certain class attribute

# Week 14: Tables

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- ❖ Use table elements
- ❖ Use table headers and footers
- ❖ Group columns
- ❖ Style table borders
- ❖ Apply padding, margins, and floats to tables
- ❖ Style table background colors
- ❖ Apply table styles

- The HTML table elements allow the arrangement of data into rows of cells and columns
- The table element `<table>` contains the table information, which consists of:
  - Header element `<th>`
  - Row element `<tr>`
  - Data cell alignment `<td>`

# Week 15: Webforms

- ❖ Understand how forms work
- ❖ Use the <form> element
- ❖ Create input objects
- ❖ Style forms with Cascading Style Sheets (CSS)

The screenshot shows a web browser window with a title bar 'Sample Form'. The main content area is titled 'GoFish! Magazine – Reader Survey'. It contains the following fields:

- 'Tell us who you are:'
  - 'First Name:' followed by a text input field.
  - 'Last Name:' followed by a text input field.
- 'Select the species you prefer to fish:'
  - A list of checkboxes next to fish species: Smallmouth Bass, Largemouth Bass, Crappie, Walleye, Muskie, Pike.
- 'If you own a boat, select the type:' followed by a select list with 'Canoe' selected.
- 'Briefly tell us your favorite fish story:' followed by a text area labeled 'Enter your story here...'. A callout box points to this field with the label 'text area'.
- 'Would you like to be on our mailing list?'
  - Two radio buttons: 'Yes' (selected) and 'No'.
- 'Submit your answers' and 'Clear the form' buttons at the bottom.

Callout boxes with labels point to specific elements:

- 'text input' points to the first text input field.
- 'check boxes' points to the list of checkboxes.
- 'select list' points to the boat type select list.
- 'radio buttons' points to the mailing list radio buttons.
- 'submit and reset buttons' points to the bottom buttons.

Figure 11-1: Sample HTML form  
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- Forms let you build interactive web pages that collect information from a user and process it on the web server
- The HTML form is the interface for the user to enter data
- The data is processed by applications that reside on the web server
- The data-processing software can then work with the data and send a response back to the user

# Week 17: Metatags

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- **HTML <meta>** tag - specify metadata, which is additional important information about a webpage or HTML document.
- The following metadata can be added using the <meta> tag:
  - Specifying Keywords
  - Document Revision Date
  - Page Redirection
  - Setting Author Name
  - Document Description
  - Document Refreshing
  - Setting Cookies
  - Specify Character Set

# Final Semester Exam Overview

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**Five-part exam – 100 marks = 40% assessment weight**

- ✓ **Part A: Multiple choice questions (10 marks)** - 10 questions
- ✓ **Part B: Matching terms & definitions questions (10 marks)** - 10 questions
- ✓ **Part C: HTML/CSS Syntax questions (10 marks)** - 6 questions (HTML or CSS tags/code)
- ✓ **Part D: Short Answer questions (25 marks)** 5 questions
- ✓ **Part E: Webpage element programming questions (45 marks)**

# Study tips

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- ❖ Study or revise all 9 lecture topics from week 1 to week 17.
- ❖ Download the weekly activity solutions from the [GitHub site](#)
- ❖ Try to understand and write the code or syntax for all HTML elements taught this semester.
- ❖ Recall the topics we discussed in-depth during classes
- ❖ Test 1, Test 2 and the Mid-test papers
  - ✓ HTML Tags and coding
  - ✓ Defining sites in Dreamweaver CS4
  - ✓ Methods of inserting images to a web page using Dreamweaver CS4
  - ✓ Reasons for Creating Websites
  - ✓ CSS Box Model
  - ✓ Web Browsers
  - ✓ Creating table using html coding and Inserting Tables through the Dreamweaver CS4 application
  - ✓ HTML elements and functions/purposes

# Exam schedule

Refer to the official exam timetable for updated date, day and times

<b>Group</b>	<b>Venue</b>	<b>Time &amp; Date</b>
<b>DICT S2 D1</b>	Seminar Room 7	1:30 – 3:30pm – 21 November 2025
<b>DIT D1</b>	Computer Lab 1	8:30 – 10:30am – 28 November 2025
<b>DIT D2</b>	Computer Lab 2	8:30 – 10:30am – 28 November 2025
<b>DIT D3</b>	Computer Lab 3	8:30 – 10:30am – 28 November 2025
<b>DIT D4</b>	Computer Lab 4	8:30 – 10:30am – 28 November 2025
<b>DIT D5</b>	Seminar Room 8	8:30 – 10:30am – 28 November 2025