



Web Programming Essential & Webpage Design Revision

4010 WEBPAGE DESIGN

251514 WEB PROGRAMMING ESSENTIALS

Content Overview



Week 1: Web Development & the World Wide Web

Week 2: HTML & A Business Website

Week 3: Web Theory & Dreamweaver basics

Week 4: Creating a website

Week 5: Adding text and structure & CSS

Week 12: Cascading Style Sheet (CSS)

Week 14: Tables

Week 15: Webforms

Week 17: Metatags

Exam hints

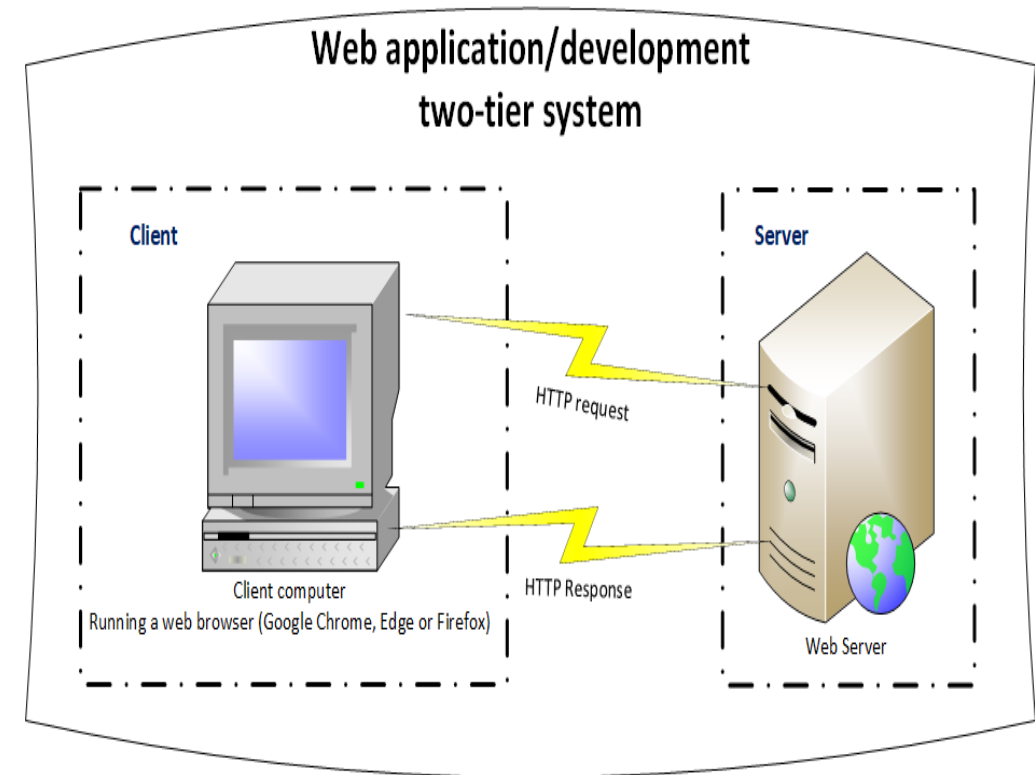
Week 1: Web Development & the World Wide Web

- ❖ 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

- ❖ 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

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	Visit
	Image display	
 	Line break	Line one Line two
, , 	Lists	Item

Week 2: HTML & A Business Website

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

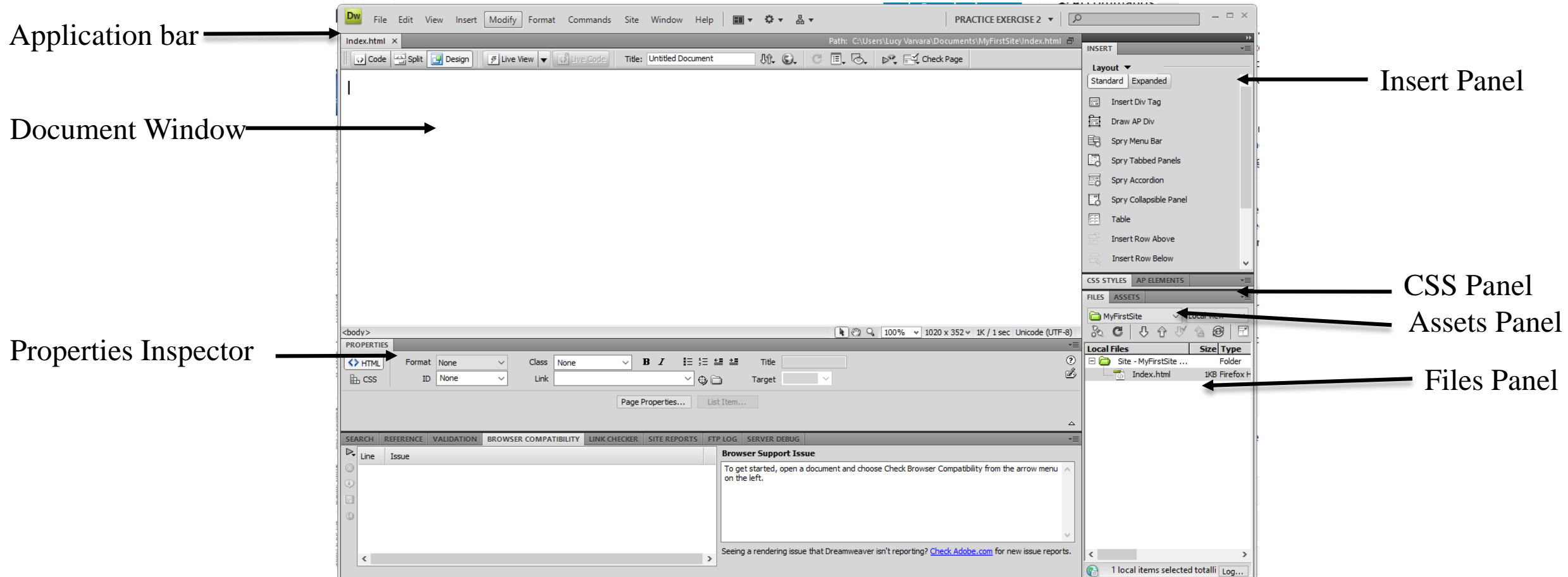
10. Gives You Control

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

Week 3: Web Theory & Dreamweaver basics

- **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

- ❖ 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

- ❖ 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

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 (``)
 - Links (`<a>`)
 - Lists (``, ``, ``)
 - 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:
- **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.

selector {

property: value;

selector

body {

background-color: green;

}

declaration

Figure 4-6

- 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

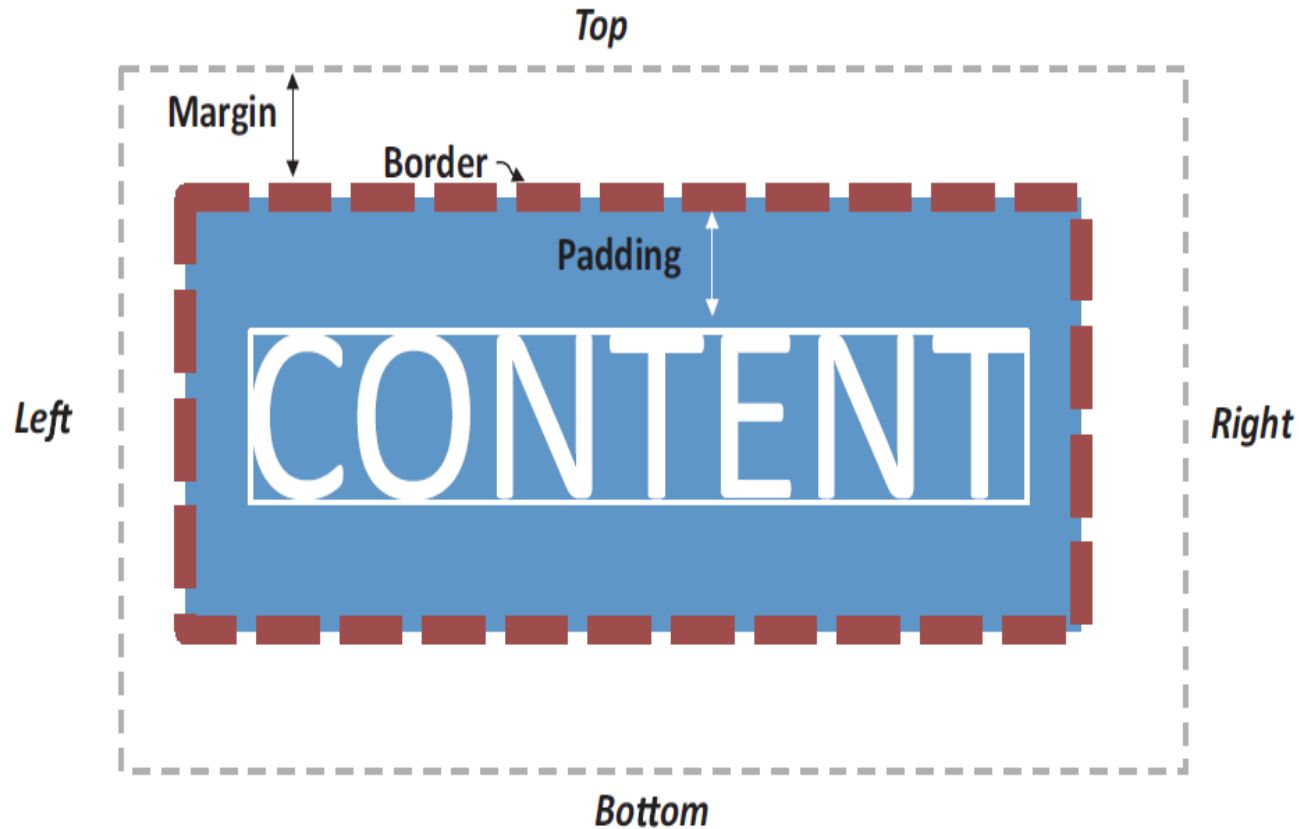


Figure 4-9

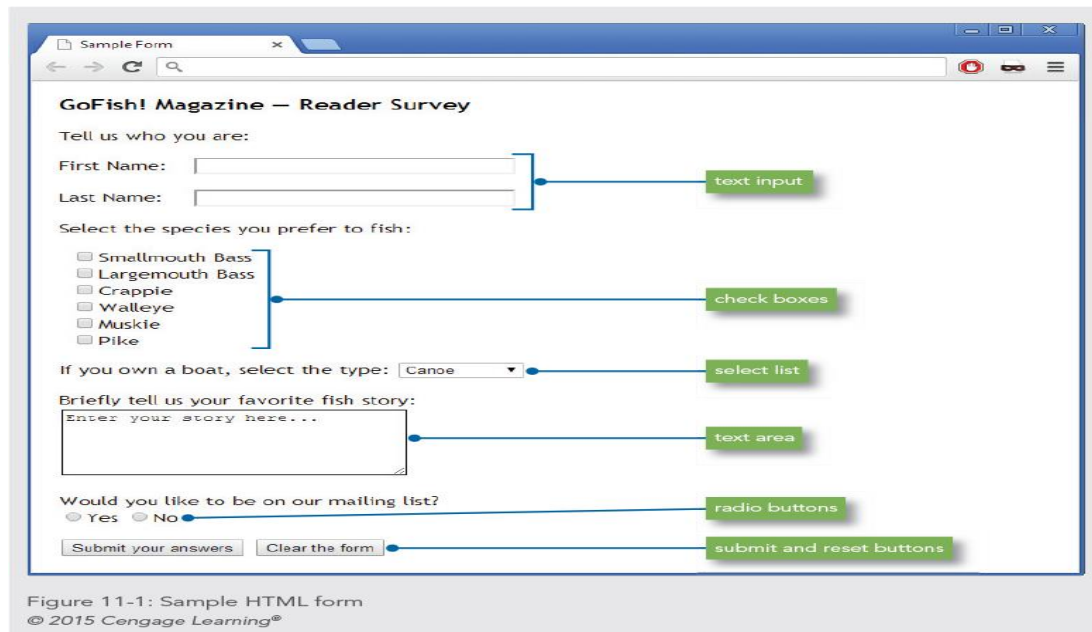
- The **margin** provides passive white space between block elements or between the top or bottom of a webpage
- The **border** separates the padding and the margin of the block element
- Padding** is the passive white space between the content and the border of a block element
- Content** in the center 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

- ❖ 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)



- 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

- **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

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

- ❖ 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

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