



Week 3 & 4: WEB THEORY & DREAMWEAVERS

4010 WEBPAGE DESIGN

Web Theory

LESSON 3

Introduction

- In order to understand the history of the **World Wide Web**, it is necessary to distinguish between the **World Wide Web** and the **Internet**.
- Many people refer to them interchangeably, but they are extremely distinct.
- The **internet** is a global network of computers that connects and communicates with one another. A variety of languages are available on the internet, allowing information to be transmitted between computers. These are referred to as **protocols**. Some typical email transfer protocols include **IMAP**, **POP3**, and **SMTP**.

World Wide Web Protocols

- **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.
- The practical foundations of the World Wide Web emerged in 1980 with Tim Berners-Lee's project "Enquire," a database linking people and software at his workplace.
- It introduced hypertext—text linked via clickable connections—which became a core element of web design.

History of the Internet (1/2)

Key Milestones in Internet History (Zimmermann and Emspak, 2017)

- **1960s–1970s: Foundations Laid**
 - Packet-switching invented; ARPANET connects first computers.
 - Ray Tomlinson invents email, and the term "internet" is born.
- **1980s: Protocols & Expansion**
 - TCP/IP standardizes internet communication.
 - DNS (.com, .org, etc.) simplifies web addresses.
 - First domain registered and academic networks grow rapidly.
- **1990s: Birth of the Web & Commercial Boom**
 - Tim Berners-Lee develops HTML and launches the World Wide Web.
 - Mosaic browser and sites like Yahoo!, Amazon, and eBay ignite public interest.
 - Google and online video enter the scene

History of the Internet (2/2)

- **2000s: Social & Multimedia Era**

- Facebook, YouTube, Twitter, and WordPress redefine how we interact.
- Napster, blogs, and viral content explode online.

- **2010s: Mobile, Smart Tech & Activism**

- Instagram, Pinterest, and smart assistants emerge.
- Online banking, IoT devices, and global activism via social media rise.

- **2020s: The Connected Planet**

- Over half the world is online.
- 5G and satellite internet expand accessibility.

What is a Web page?

- A **webpage** is a single document within a website, each identified by a unique **URL**. URLs can lead to public or private pages and allow easy access and sharing via web browsers. While a direct URL can load a page without extra navigation, most websites link multiple pages to form a structured layout that aids in **user experience** and **SEO**.

- **Development & Types**

- Webpages are built with languages like **HTML**, **PHP**, **Python**, or **Perl**. HTML pages load quickly and look simple, while **CSS** and **JavaScript** enhance interactivity and design.

- **Webpages can be:**

- **Static** – fixed content
- **Dynamic** – responsive and data-driven

Characteristics

The following are the characteristics of the webpage:

- Being a part of a website, the web page contains several topics linked to the website.
- Different webpages can use the same name (title name), but they should reside in different documents having different URLs.
- Webpages take less time to be developed as compared to the website.
- The webpage is relatively easy to develop.

What is the Website?

- A **website** is a collection of interlinked webpages under one domain.
- These pages are connected via hyperlinks, forming a structured navigation system.
- Accessing a website is as simple as entering its domain in a browser.
- The development relies on the same programming languages as webpages, like HTML, CSS, JavaScript, PHP, etc.
- Building a website tends to be more complex than creating a single webpage.

***Note:** Typically, the websites include many webpages other than homepage, contact, support, blog, forum, about, products, downloads, etc. But sometimes, websites can be built with single entity content having no hyperlinks. Such types of websites are referred to as 'Single-page Website'.*

Characteristics

The following are the characteristics of the website:

- The website is a cluster of different webpages and can include text, media, and other content.
- The website is presented by a unique domain address.
- The website takes more time to develop than a webpage.
- The website is comparatively complex to develop.

Website Categories

- **Static Websites** Designed for displaying fixed information. Visitors can read but not interact.
- **Interactive Websites** Allow user engagement via comments, chatboxes, article posting, etc.

Key differences between Webpage and Website

Webpage	Website
A single document with content and links	A platform made of multiple webpages
Has a unique URL with extensions like .html	Uses a domain name, typically no extension
May contain file paths on the server	Directly tied to a server's unique IP address
Depends on domain to exist	Website can exist even if certain webpages are deleted
Easier and quicker to design	Requires more effort to develop and maintain
Contains content on a single topic	Covers broader topics and links multiple pages
Is the displayed content	Is the container that hosts and organizes pages

Web Jargon (1/2)

Term	Definition
Home Page	The main page of a website; typically the default landing page.
Web Page	A single document on the internet, part of a website.
URL	Uniform Resource Locator; the web address of a resource (e.g. https://...).
Website	A collection of linked webpages under a common domain name.
Hypertext	Text that links to other digital resources.
Hyperlinks	Clickable links that redirect to other pages or sites.
Browser	Software used to access and view websites (e.g., Chrome, Firefox).
Server	A computer that stores web data and responds to browser requests.
HTML	Hypertext Markup Language; structure of webpages.
HTTP/HTTPS	Protocol used for transferring web data.
DHTML	Dynamic HTML; uses JavaScript and CSS for interactive web pages.
XML	Extensible Markup Language; stores and transports structured data.
ISP	Internet Service Provider; company that provides internet access.

Web Jargon (2/2)

Tags	HTML elements used to define content structure (e.g., <h1>, <p>).
CSS	Cascading Style Sheets; used for styling the look of webpages.
JavaScript	Programming language for dynamic and interactive web features.
Responsive Design	Designing websites that adjust layout across devices.
Domain Name	Human-friendly name for a website (e.g., example.com).
Hosting	Service that stores websites and serves them online.
CMS	Content Management System; software to manage website content.
SEO	Search Engine Optimization; boosts site visibility in search engines.
Wireframe	A blueprint or skeletal layout of a web page or site.
Favicon	Small icon shown in browser tabs representing a website.
404 Error	Page Not Found error when a URL doesn't exist.
SSL Certificate	Provides secure, encrypted communication via HTTPS.
Landing Page	Focused webpage designed for marketing or conversions.
CTA (Call to Action)	Prompt directing users to take an action (e.g., Buy Now).
Backend	Server-side operations, databases, and logic handling.
Frontend	Client-side code and visuals users interact with.
Git	Version control system for tracking code changes.

Role of ISP

- **ISPs** are the primary providers of internet access. Individuals and organizations would be unable to access to the internet and use its tremendous resources if ISPs did not exist. ISPs' role in supplying the internet is varied, encompassing infrastructure, maintenance, and customer support.
- An **Internet Service Provider (ISP)** is a company or organization that provides individuals and businesses with access to the internet. **Example:** PNG DataCo, Datec PNG, Digicel PNG etc.
- ISPs connect customers to the internet via various technologies, including broadband, fiber optics, satellite, and wireless networks.
- They typically offer different service packages, such as broadband, DSL (Digital Subscriber Line), cable, and fiber internet, depending on the infrastructure in place and the customer's location.

How ISPs Provide the Internet: Infrastructure and Connectivity

One of the primary roles of ISPs in providing the internet is building and maintaining the infrastructure that connects users to the web. This infrastructure consists of a series of physical and digital components, including:

- **Data Centers:** These facilities house the servers and routers that manage and route internet traffic. ISPs maintain data centers around the world to ensure fast and reliable connections.
- **Fiber Optic Cables:** ISPs use fiber optic cables to transmit data at high speeds. These cables are laid down undersea, underground, and across land to connect different regions and continents.
- **Routers and Switches:** Routers are devices that direct internet traffic between networks, while switches manage data flow within a network.
- **Backbone Networks:** These are high-capacity networks that form the core infrastructure of the internet. ISPs interconnect their networks with these backbone networks to provide broader internet access.

Preparing for website creation (1/2)

1. Planning and Strategy

- **Define the purpose:** Is it informational, a portfolio, an online store, a blog?
- **Identify the target audience:** Age, location, interests—tailor the design and content. Set goals: e.g., increase brand awareness, generate leads, sell products.
- **Research competitors:** See what similar sites do well (and not so well).

2. Domain Name and Hosting

- **Choose a domain name:** Memorable, relevant, ideally with a .com.pg, .org.pg, .ac.pg, .net.pg, or regional extension.
- **Register the domain:** Use services like GoDaddy, Namecheap, or Google Domains.
- **Select a hosting provider:** Shared, VPS, dedicated, or cloud hosting—based on budget and needs.

3. Content and Structure

- **Plan the sitemap:** Home, About, Services/Products, Blog, Contact pages.
- **Create initial content:** Text, images, videos, icons, and branding assets.
- **Decide on tone and voice:** Formal, casual, educational, etc.

Preparing for website creation (2/2)

4. Design and Development

- **Wireframes and mockups:** Sketch layout ideas and user flow
- **Choose a platform/CMS:** WordPress, Wix, Squarespace, Webflow, or custom-coded.
- **Design the UI/UX:** Focus on readability, responsiveness, and usability.
- **Develop the site:** Use HTML, CSS, JS, and frameworks (Bootstrap, React, etc.) as needed.

5. Functionality and Features

- **Add navigation:** Menus, links, breadcrumbs.
- **Integrate features:** Contact forms, chatbots, search bar, e-commerce cart.
- **SEO basics:** Meta tags, alt text for images, friendly URLs.
- **Security measures:** SSL certificate, CAPTCHA, backups.

6. Testing and Launch

- **Check responsiveness:** Ensure compatibility across devices.
- **Validate code:** Use tools like W3C Validator.
- **Test performance:** Page speed, broken links, and image optimization.
- **Go live!:** Upload files, connect domain, publish.

7. Post-Launch Tasks

- **Monitor analytics:** Track visitors, bounce rate, conversion.
- **Update content:** Blog posts, portfolio items, seasonal promotions.
- **Engage audience:** Through newsletters, social media, and comments.
- **Maintain the site:** Software updates, security patches, and backups

References

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www.tpointtech.com. (2025). *Difference between Webpage and Website - Tpoint Tech*. [online] Available at: <https://www.tpointtech.com/webpage-vs-website> [Accessed 25 Jul. 2025].

Sunday, I.N. (2024). What Is The Role Of ISPs In Providing The Internet? - INTERNETISGOOD. [online] INTERNETISGOOD - Informative And Educative Content. Available at: <https://internetisgood.com/what-is-the-role-of-internet-service-providers-isps-in-providing-the-internet/> [Accessed 25 Jul. 2025].

Dreamweaver Basics

LESSON 4

Learning Outcomes

By the end of this session students should be able to;

- Gain an understanding of some common web terms
- Learn how to start Dreamweaver
- Gain an understanding of the Dreamweaver workspace
- Gain an understanding of the Document Window
- Learn how to open a file
- Learn how to work with the document window
- Gain an understanding of panels and panel groups
- Gain an understanding of Files panel
- Gain an understanding of Properties inspector
- Learn how to work with the Properties inspector
- Learn how to exit Dreamweaver.



What is Adobe Dreamweaver?

- **Adobe Dreamweaver** is a Website Design software program that offers more advanced features than typical HTML web and programming editors. It was originally developed and published by Macromedia in 1997. Adobe took over Macromedia in 2005 and continued the development of the software.
- For users exploring other tools, there are several Adobe Dreamweaver Alternatives available for the macOS and Windows Operating Systems.



History of Dreamweaver

- Dreamweaver was first released by Macromedia in 1997 as a Graphical User Interface (GUI) for Web Development. It was designed to compete with Microsoft FrontPage, which was the dominant Web Design tool at the time. Dreamweaver rapidly became a favourite among Web Designers and Developers due to its user-friendliness, adaptability, and adherence to a range of web standards. Dreamweaver also introduced features such as code highlighting, code completion, code validation, and site management.
- In 2005, Adobe acquired Macromedia and renamed the product as Adobe Dreamweaver. Since then, Adobe has added more features and improvements to Dreamweaver, such as support for CSS, JavaScript, PHP, ASP.NET, and other web technologies. Adobe has also integrated Dreamweaver with other Adobe products, such as Photoshop, Illustrator, and Fireworks, to enhance the Web Design workflow.

Key Features of Dreamweaver

- a. **Fast, flexible coding:** Dreamweaver enables easy creation, coding, and management of dynamic websites through its intelligent and streamlined coding engine. It offers code hints for rapid learning and modification of HTML, [CSS](#), and other web standards.
- b. **Set up your site in fewer steps:** Dreamweaver accelerates the website launching process by offering customizable starter templates suitable for creating HTML emails, About pages, [blogs](#), e-commerce pages, newsletters, and portfolios..
- c. **Seamless Live View editing:** Dreamweaver offers a convenient feature where you can directly edit text and image attributes and add classes in the Live View with a single click.
- d. **Multi-monitor support for Windows:** Dreamweaver offers the capability to extend your workspace across multiple monitors, allowing you to view and work on your pages on several screens at once
- e. **Git support:** Dreamweaver simplifies teamwork through its Git integration. It allows you to handle all your source code directly within the Dreamweaver environment and execute typical operations via the Git panel. Additionally, it enables you to synchronise your modifications with external repositories and work collaboratively with fellow developers.

Adobe Dreamweaver CS4 Overview

- **Dreamweaver CS4** is the professional solution for website creation from small to large organizations especially for those wanting to use Style sheets to layout your pages. Dreamweaver CS4 enables you to get to grips with the HTML that is used to create sites hence you will have a greater understanding as to what is going on.

Getting Started with Adobe Dreamweaver CS4 (1/2)

- **Building and Managing Websites:** Adobe Dreamweaver is a cool tool that helps you make your own websites and keep them updated as you go
- **What You See Is What You Get (WYSIWYG):** This means you design your web pages by seeing exactly how they'll look online, so you don't have to guess or know coding.
- **Two Ways to Edit:** You can either drag and drop to design or write the code yourself if you want more control.
- **Supports Many Web Languages:** Dreamweaver works with important web languages like *HTML*, *CSS*, and *JavaScript*, plus others that make websites interactive.
- **Easy to Upload Your Site:** It helps you put your website online quickly without complicated steps.

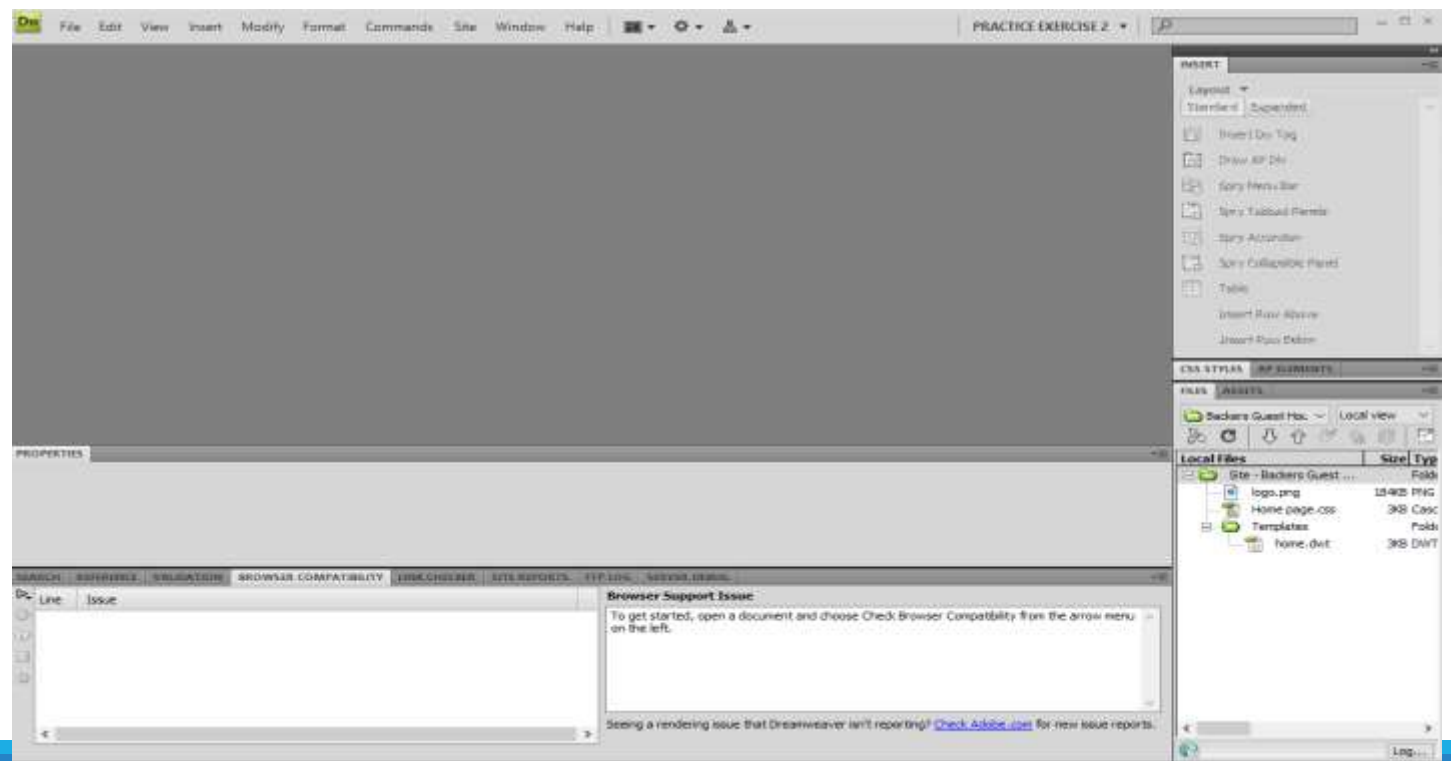
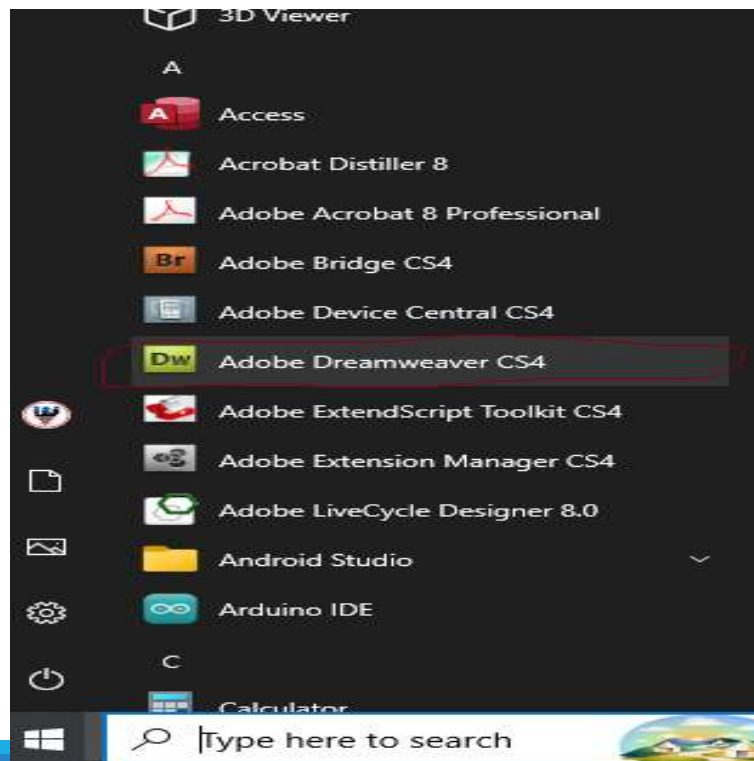
Getting Started with Adobe Dreamweaver CS4 (2/2)

- **Preview Before Publishing:** You can check how your site looks and works right on your computer before sharing it with the world
- **Templates for Quick Design:** Use templates to make pages faster and keep your site looking consistent.
- **Update Once, Change Everywhere:** When you change a template, all pages using it update automatically, saving you time.
- **Learning Dreamweaver:** It has lots of features, so it might seem tricky at first. This lab will help you get started with the basics

Starting Adobe Dreamweaver CS4 (1/4)

1. **Start Dreamweaver.** You should see a Startup Screen. Dreamweaver lets you publish your website by easily uploading your website to a Web server. Right now we won't be worrying about that. For now you will be creating and viewing your site locally (meaning the site will be located on the computer)

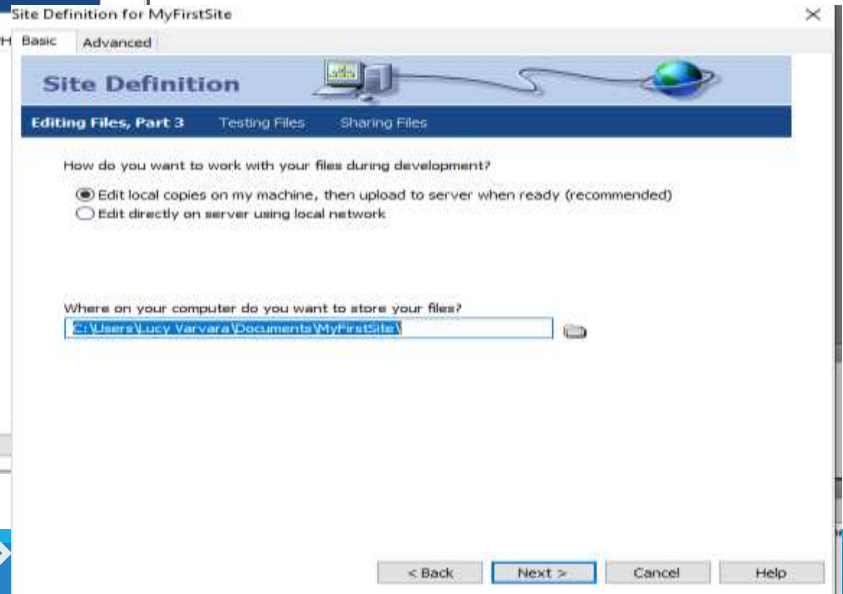
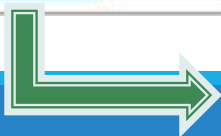
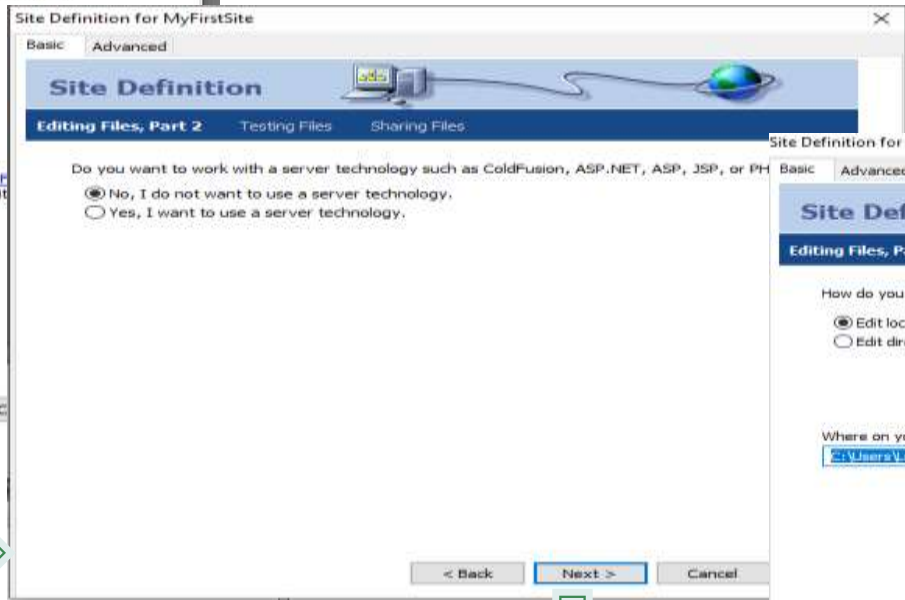
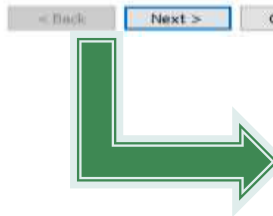
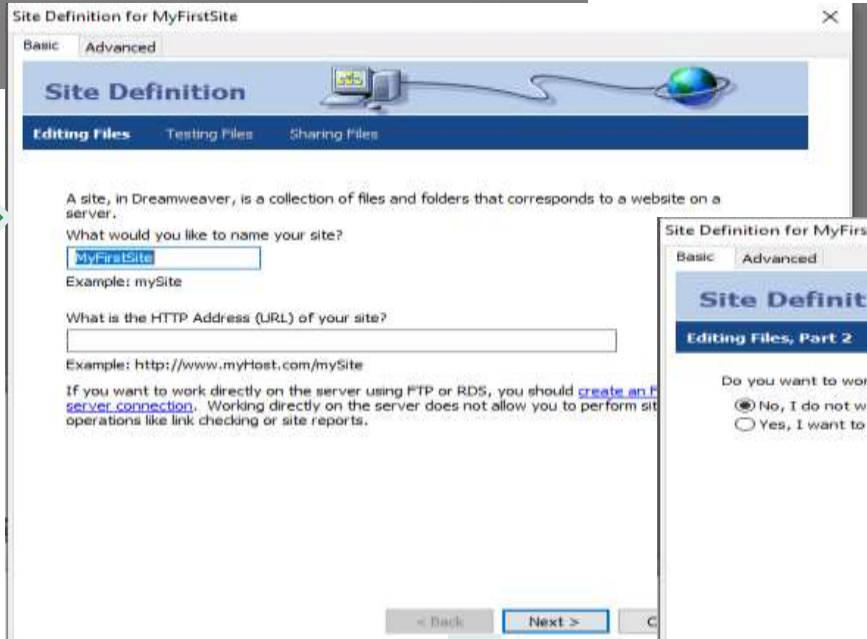
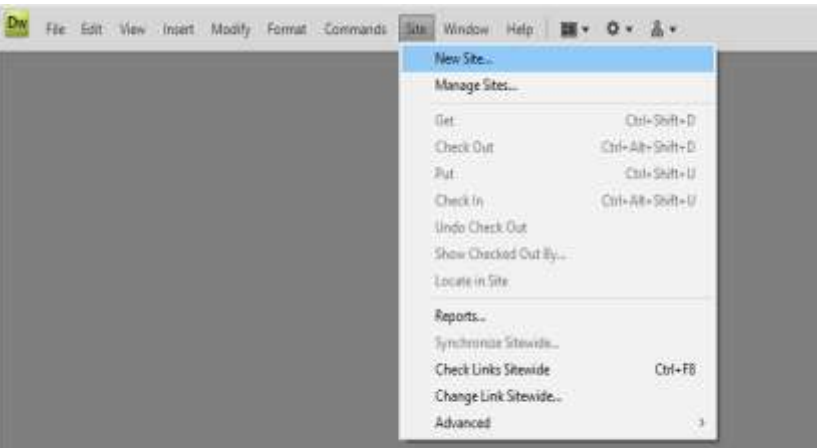
*Click on **Start** > from the Start menu click on **Adobe Dreamweaver CS4***



Starting Adobe Dreamweaver CS4 (2/4)

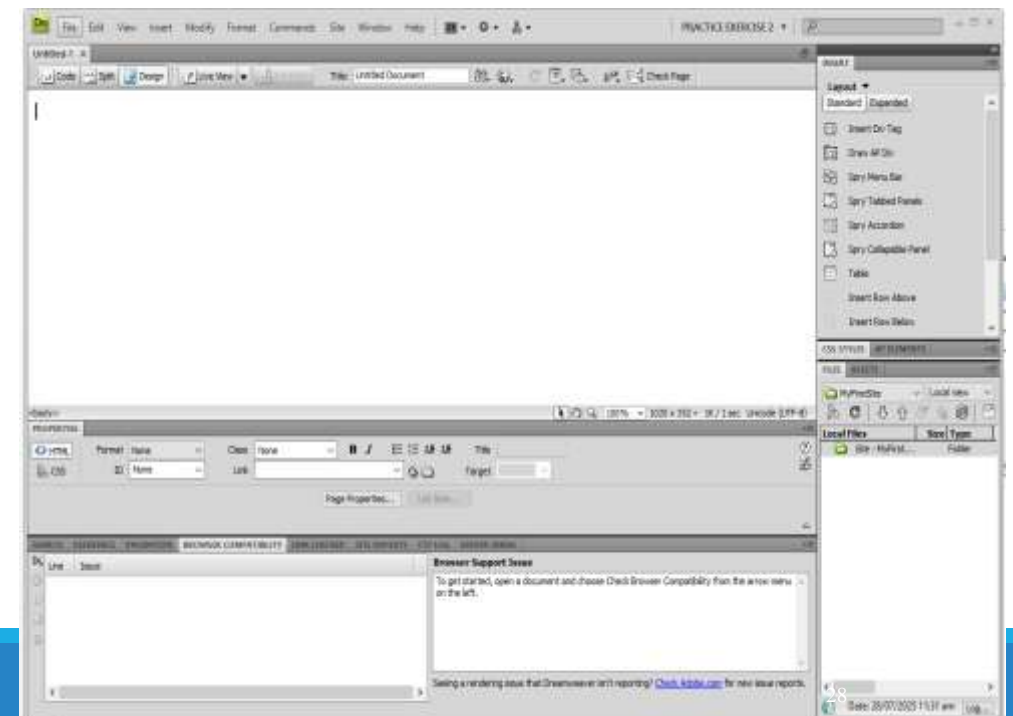
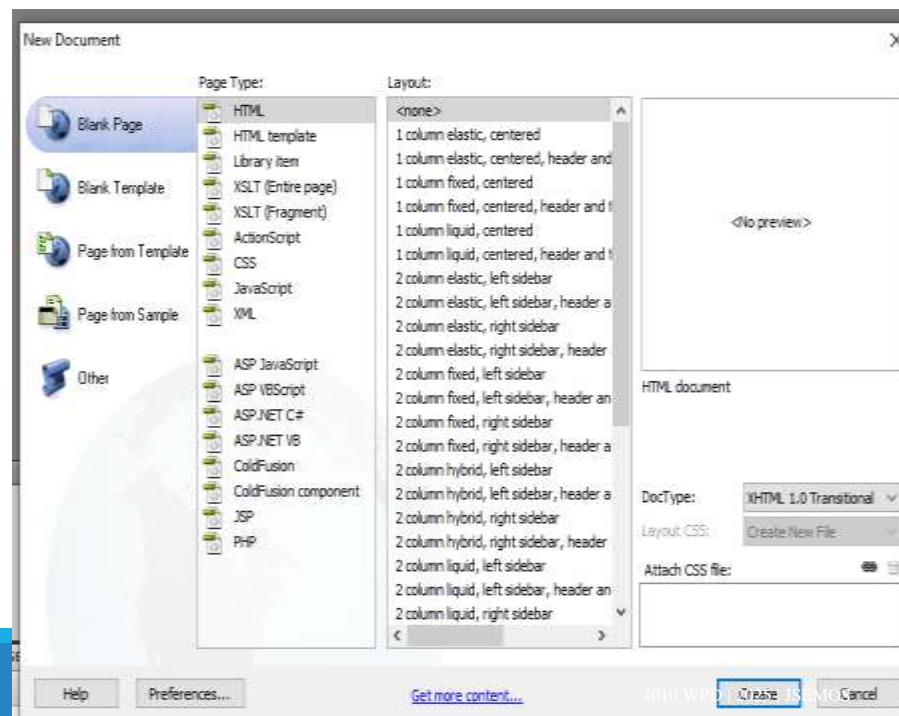
2. Create a Site Folder

- Click on **Site** menu>select **New Site**
- On the Site Definition dialog box under the site name enter a name for your site, in our example lets put “MyFirstSite
- Dreamweaver doesn’t need a URL at this stage. You’ll work on files saved in your local folder. Click >**Next**
- Click> **No I do not want to use a server technology.** Click **Next**
- Click> *Edit local copies on my machine, then upload to server when ready*
- Select a folder>click **Next**
- Click **Next**
- Done



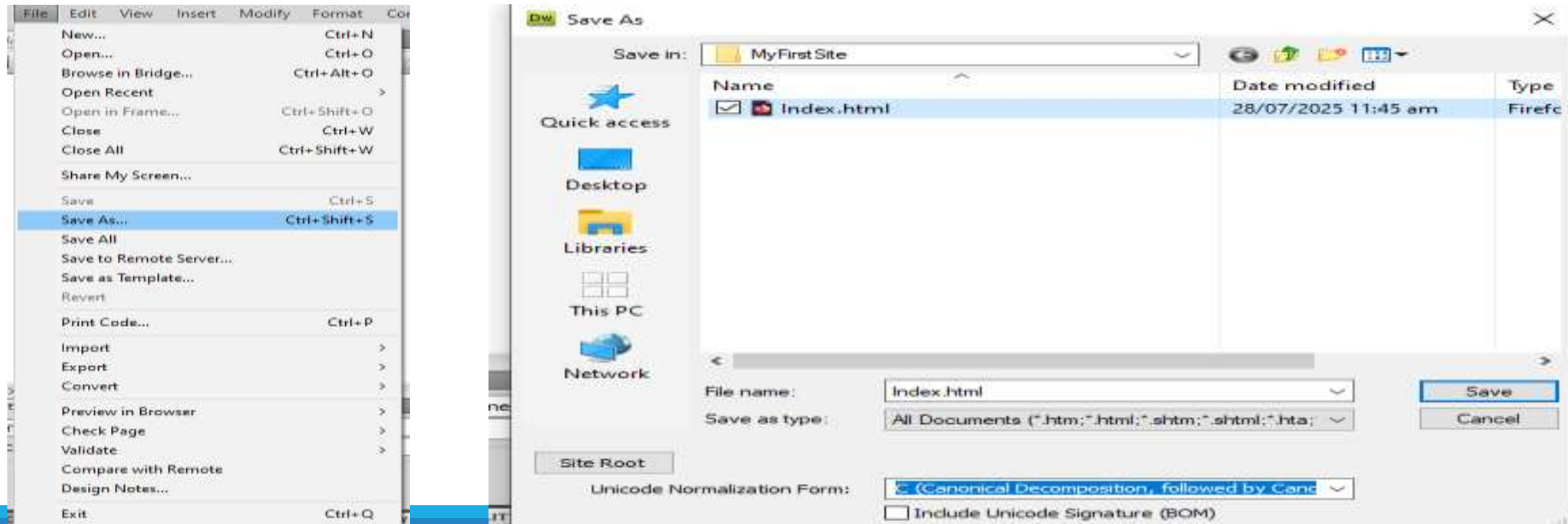
Starting Adobe Dreamweaver CS4 (3/4)

3. Click > *File* menu > Click *New*
4. From the *New Document* dialog box > Select *HTML* > click *Create*
5. You should now see a blank web page in the document window



Starting Adobe Dreamweaver CS4 (4/4)

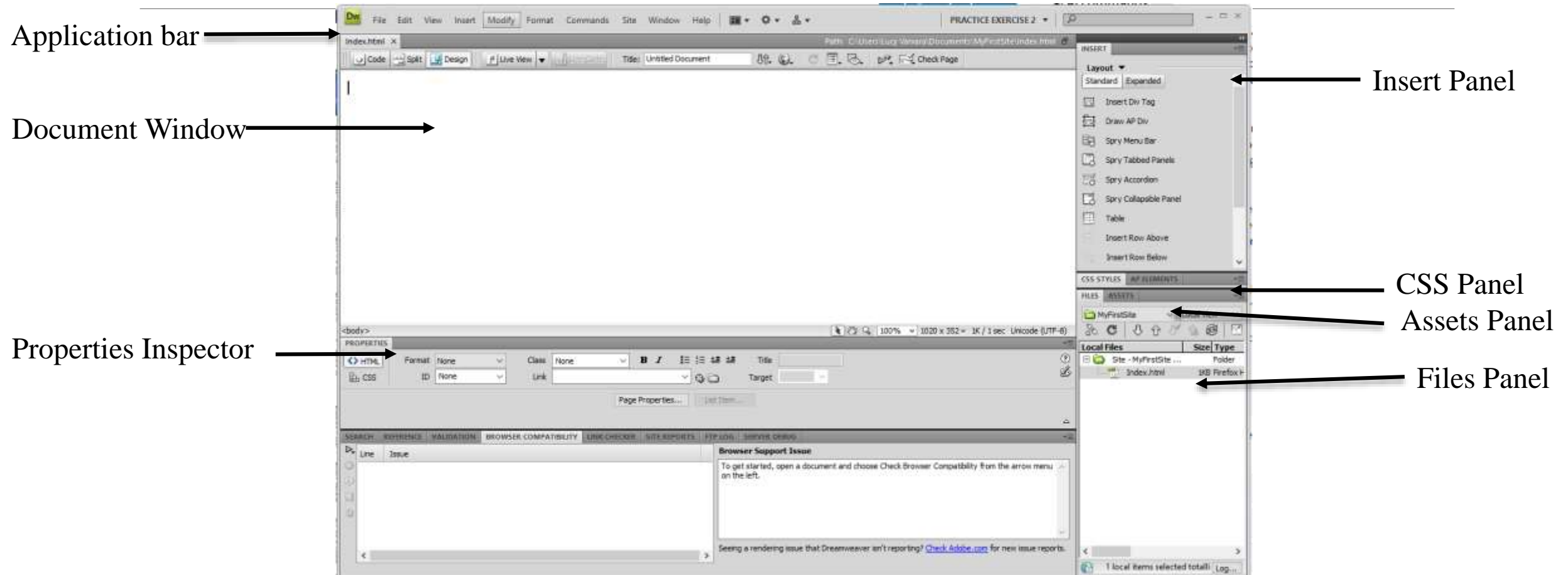
6. Under the **File** Menu(Top left of the Dreamweaver work area)> Click **Save AS**
7. In the **Save As** dialog box, find your website folder and save your file as **index.html**
8. Click> **Save**. Congratulations! You have created your first Web page using Dreamweaver. Unfortunately, its pretty boring at the moment.



RULES OF THUMB for Naming Web Files

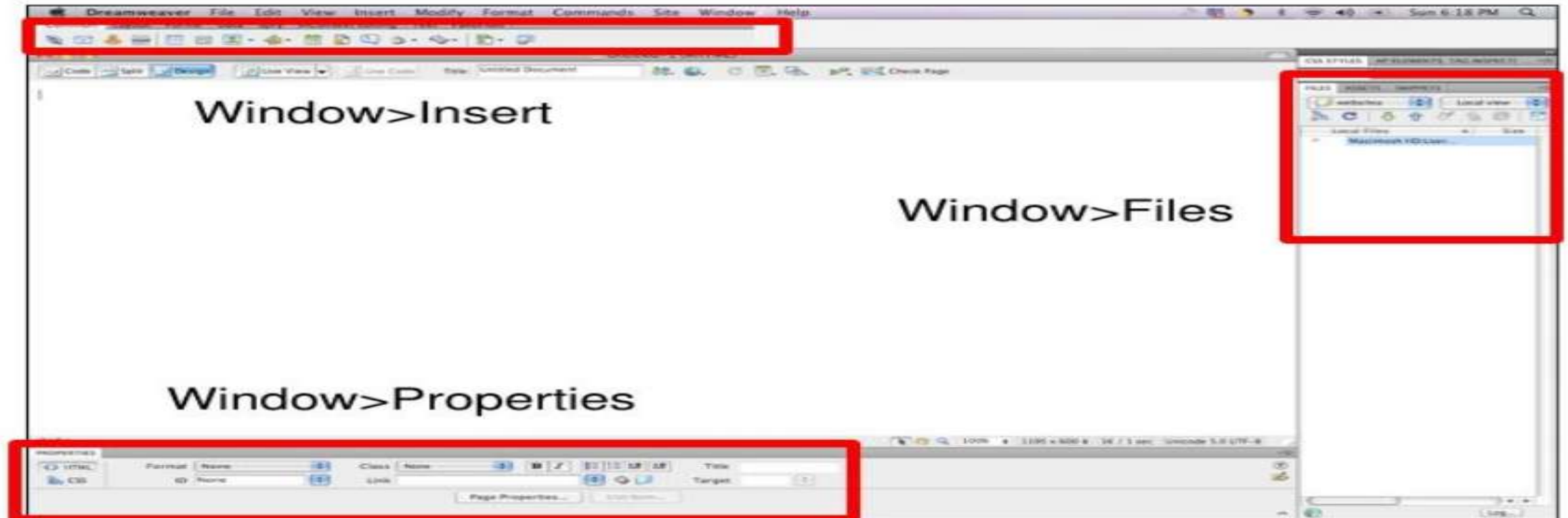
1. Do not use spaces or special characters, such as those found above the number keys on the keyboard, in your files names. You can use dashes and underscores e.g., My_Page.html
2. Always use a 3-4 character file extension for every file you use on the web. In the case of a regular web page, always use .htm or .html
3. Be very specific about capitalizing because of web servers are case-sensitive.

Dreamweaver Workspace (1/4)



Dreamweaver Workspace (2/4)

Tool Locations



Dreamweaver Workspace (3/4)

Application Bar

- Located at the **top of the workspace**, it includes menus like **File**, **Edit**, **View**, and more.
- Offers quick access to layout options and workspace switching.
- Helps you toggle between **Design**, **Code**, and **Split views**.

Document Window

- The central area where you **create and edit web pages**.
- You can work in:
 - **Design View**: Visual editing.
 - **Code View**: HTML/CSS editing.
 - **Split View**: Both at once for real-time updates.

Properties Inspector

- Found at the **bottom of the workspace**.
- Dynamically updates based on what you select (text, image, table, etc.).
- Lets you change:
 - Font, size, color, alignment for text.
 - Source, dimensions, alt text for images.
 - Table properties like rows, columns, borders, and spacing.

Dreamweaver Workspace (4/4)

Panels

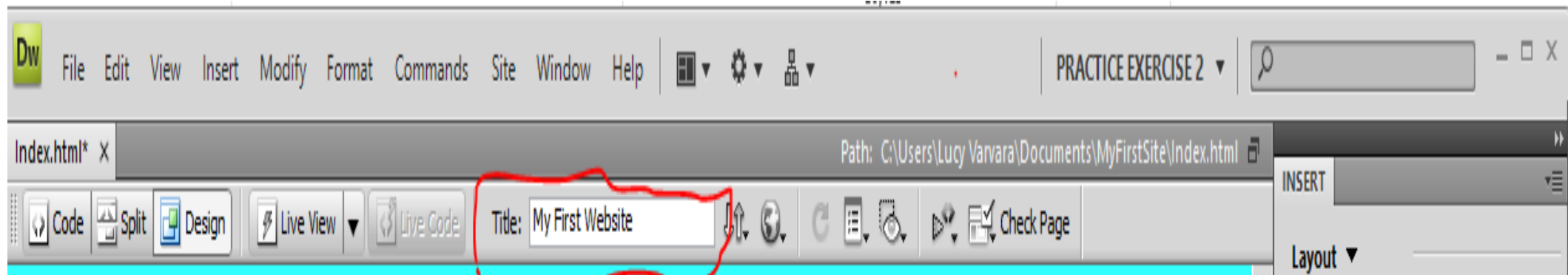
- Dreamweaver includes several floating or docked panels to help manage your site:

Panel Name	Purpose
Files Panel	Shows your site's folder structure and lets you manage files.
Insert Panel	Lets you add HTML elements like images, tables, and forms.
CSS Styles	Helps you create and manage CSS rules.
Assets Panel	Displays reusable site assets like images, colors, and media.
Tag Inspector	Shows and lets you edit HTML tag attributes.

Give Your Web Page A Title

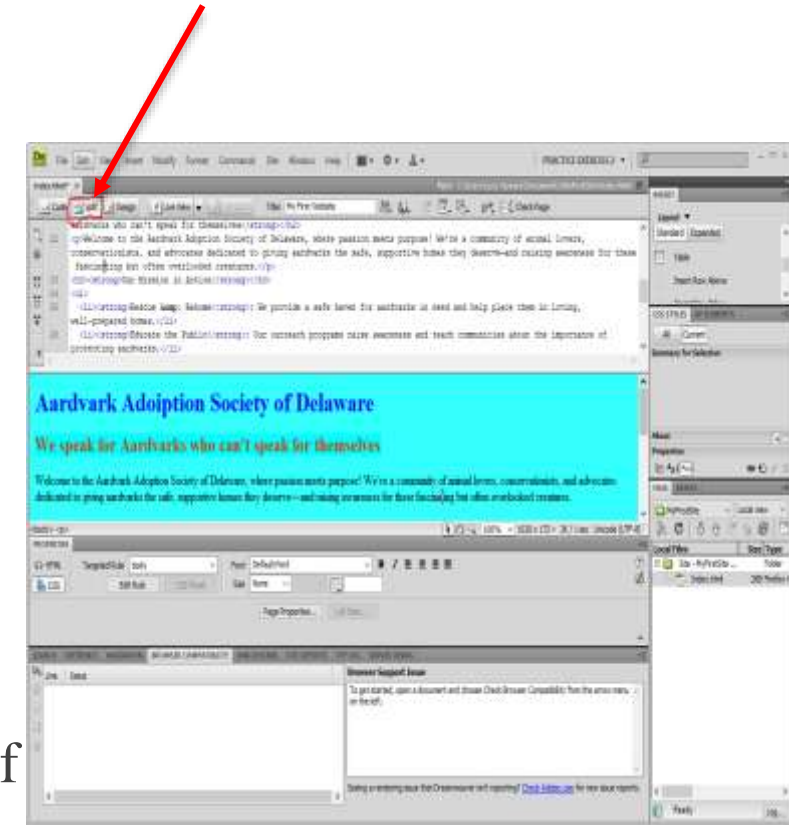
In the document Tool bar, find the title box

1. On the document(across the top of the Dreamweaver Work Area), locate the Title field
2. Type in a title for your site. Be creative (but not indecent)
3. The title doesn't show on the page but will appear in tabs and across the top of browsers.



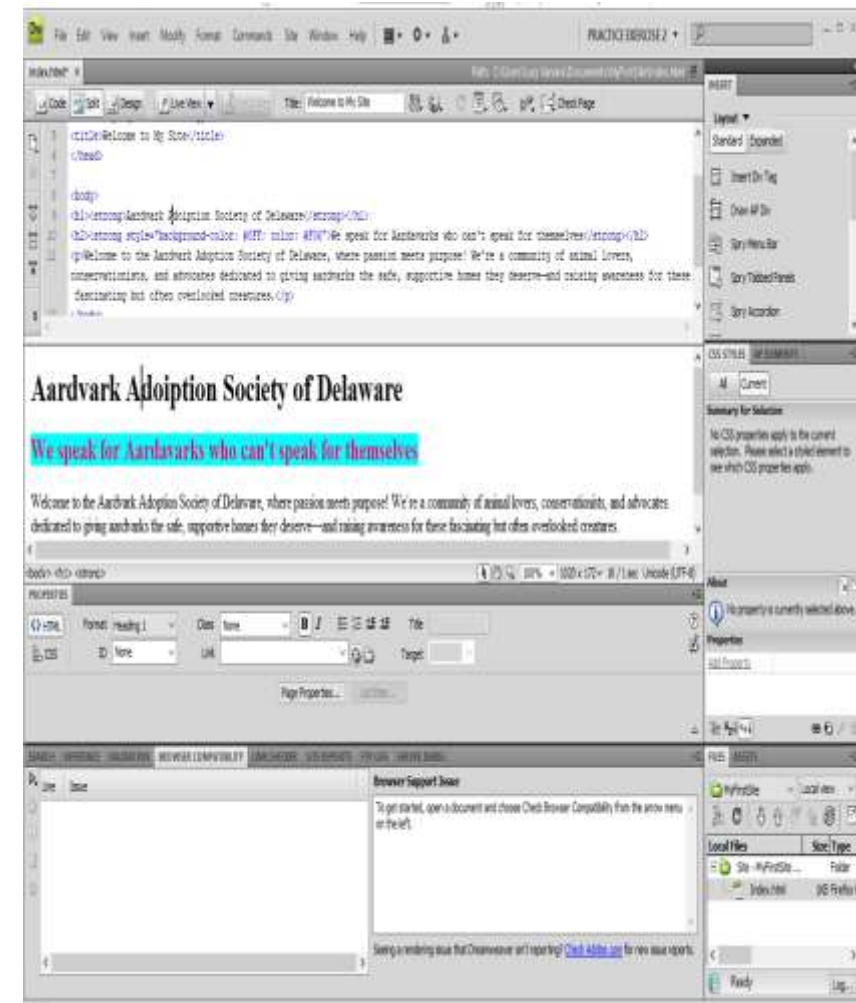
Adding Some Content: Add some Content to the page

4. If you got **Split** selected (right above the work area but below the top menus), you should have a split screen. The Top half will be your html code and the bottom half will be a blank documents window. You can always elect to click on the code button to just view the html code or the design button to see what you design look like. For now work on the bottom side in the document window. In the document Window type a good Title, if you can't think of anything, you can always use **"Aardvark Adoption Society of Delaware"**.
5. Add a subtitle below it. Again it can be anything you want. If you prefer, it could be **"We speak for Aardvarks who can't speak for themselves"**
6. If you are still using the Split Screen, notice how Dreamweaver automatically puts HTML tags around the tags we've typed in. In short, what we want will change that shortly
7. Now that you've a good title, add some content. Logically, it should go with the title. Type one or two lines for now. Will add more later. If you like add these: *Welcome to the Aardvark Adoption Society of Delaware, where passion meets purpose! We're a community of animal lovers, conservationists, and advocates dedicated to giving aardvarks the safe, supportive homes they deserve—and raising awareness for these fascinating but often overlooked creatures.*



Formatting the Contents

8. In the Documents Window highlight the Header title
9. In the property Inspector(usually at the bottom), click on the Format drop-down arrow and choose Heading 1. *Note: If you do not see the **Property Inspector**, in the menu across the top choose **Window >>> Properties***
10. In the Documents Window, highlight “*We speak for Aardvarks....*”
11. From the menu on the Property Inspector Choose **Heading 2**.
Note: When formatting your text keep in mind that text sizes in HTML are relative sizes. This means that when your page is viewed on a browser, the text size will depend on the default text size setting on each user’s computer. Relative sizes gives the users the ability to adjust the text size to suite their individual needs. This option is most important for people with visual impairments but it means that the appearance of your pages may vary from computer to computer.



Playing with Font Properties

12. Highlight the subtitle "We speak for Aardvarks..."
13. In the properties pane, select CSS and set font size to 24.
14. When prompted, create a New CSS Rule; choose *Tag as Selector Type*.
15. Click *OK*; the style appears in your HTML head section.
16. With the subtitle still highlighted, click the Bold icon to bold it.
17. Click the gray square next to Size to open the color grid; cursor changes to eyedropper.
18. Pick a color with the eyedropper; the color code shows next to the swatch. If the CSS box reappears, select Tag again.
19. Click outside the text to see it in the new color.

Alignment

22. Select “*We Speak for Armadillos...*” and click Align Center in the Property Inspector to center the subtitle (h2).
23. Select the head title (“Armadillo Adoption Society of Delaware”), choose Align Center, confirm the New CSS Rule pop-up (tag h1), and click **OK**. You’ll have 2 CSS rules in the head. You can also adjust h1 color and size.

Creating Lists

24. Add a list with a title and at least 3 items, pressing return after each.

Our Mission in Action

- **Rescue & Rehome:** We provide a safe haven for aardvarks in need and help place them in loving, well-prepared homes.
- **Educate the Public:** Our outreach programs raise awareness and teach communities about the importance of protecting aardvarks.
- **Promote Habitat Conservation:** We advocate for preserving the natural environments where aardvarks live and thrive.

25. Highlight the title, select Heading 3 in the Property Inspector (HTML mode).

26. Highlight items, click Unordered List for bullets.

27. Add another list title and items.

28. Highlight the new title, select Heading 3.

How you can help

1. **Volunteer with us:** Join our team at events, adoption drives, and educational workshops to make a direct impact
2. **Donate for a cause:** Every contribution goes toward rescue effort, veterinary care, and habitat preservation
3. **Spread the word:** Follows us on Social Media, share our mission, and help bring more visibility to the aardvark community

29. Highlight items, click Ordered List for numbers.

30. Save your work regularly.

Aardvark Adoption Society of Delaware

We speak for Aardvarks who can't speak for themselves

Welcome to the Aardvark Adoption Society of Delaware, where passion meets purpose! We're a community of animal lovers, conservationists, and advocates dedicated to giving aardvarks the safe, supportive homes they deserve—and raising awareness for these fascinating but often overlooked creatures.

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Thank you 