



Week 2: HTML & BUSINESS WEBSITE

251514 WEB PROGRAMMING ESSENTIALS

Hypertext Markup Language

LESSON 2

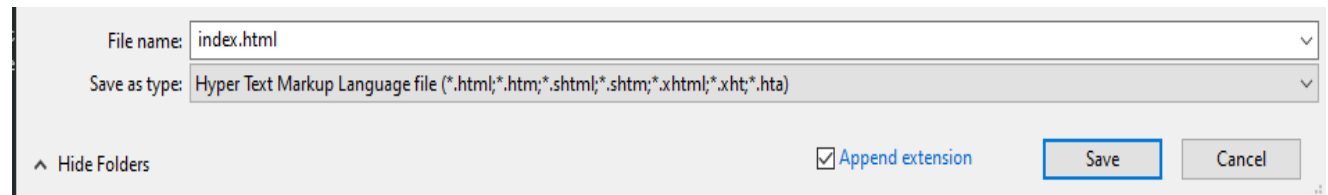
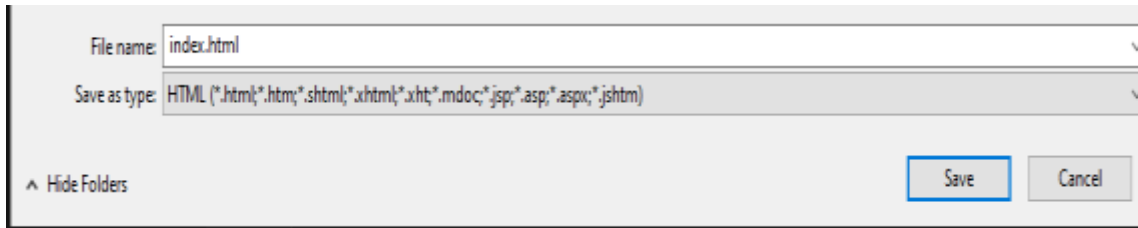
Learning Outcomes

By the end of week 2, students should be able to;

- ❖ 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 Basics

- **HTML**, short for **HyperText Markup Language**, is a programming language used to design and format web pages for viewing on the internet.
- It uses straightforward **tags** to define what content appears on the page and how it should look
- These HTML files can be written using basic text editors like **Notepad**, and they are saved with the file extension **.htm** or **.html** so that web browsers—such as **Internet Explorer/Firefox**—can recognize and properly display them.



The World Wide Web & the Internet

- Even though many people treat them as the same, the **Internet** and the **World Wide Web** are actually different.
- The **Internet** is a global network that links computers and devices to enable online communication and activity.
- The **World Wide Web**, on the other hand, is made up of interconnected web pages and applications that present information visually in browsers.
- In essence, the Web is just one feature or service that operates within the larger Internet system.

The Internet: The Global Network

- The **Internet** is a massive network of networks that connects millions of computers and devices worldwide.
- It's the infrastructure that allows digital communication and data exchange.
- Origin:** Developed in the late 1960s as ARPANET by the U.S. Department of Defense(*Wikipedia Contributors, 2018*)
- Protocols:**
 - TCP/IP to transmit data between devices
 - SMTP for sending emails
 - FTP for transferring files from one computer to another
 - Instant Messaging
 - Peer-to-peer networks, such as BitTorrent
- Components:**
 - Servers, routers, switches, and cables (including fiber optics)
 - Internet Service Providers (ISPs) that offer access
- Services Provided:**
 - Email, file sharing, streaming, online gaming, cloud computing
 - The World Wide Web is just one of many services

The World Wide Web (WWW): The Information Layer

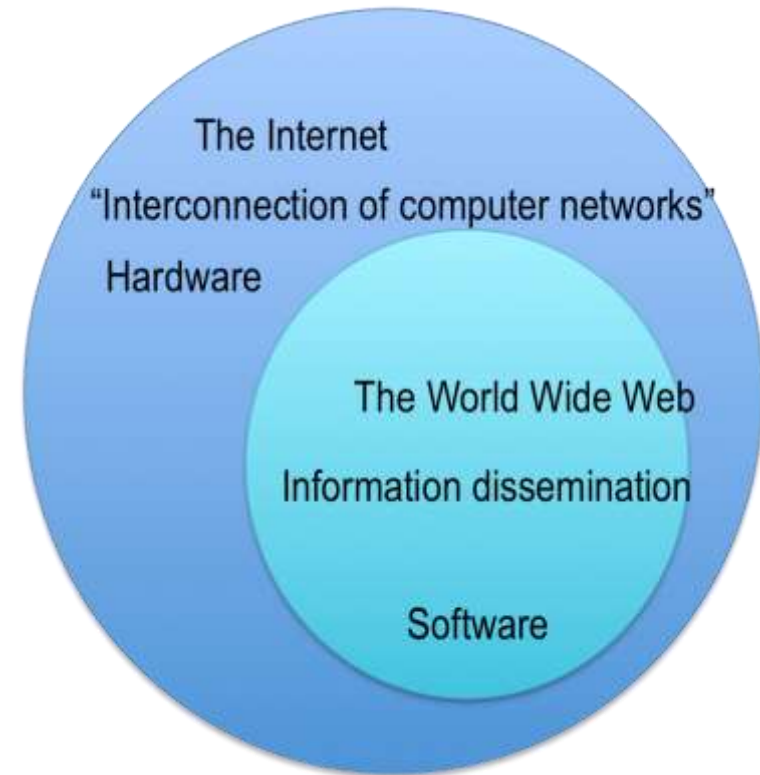
- The **WWW** is a service that runs on top of the Internet. It's a system of interlinked documents and multimedia content accessed through web browsers.
- Invented by **Tim Berners-Lee** in 1989 at CERN (*GeeksforGeeks, 2019*)
- First website:** info.cern.ch
- Made public in 1991, revolutionizing how we access information

Core Technologies:

| Component | Description |
|-------------|---|
| HTML | HyperText Markup Language – formats web pages |
| HTTP/HTTPS | Protocols for transferring web content |
| URL | Uniform Resource Locator – the address of a web page |
| Web Browser | Software like Chrome, Firefox, Safari to view web pages |

Key differences between the WWW & Internet

| Feature | Internet | World Wide Web |
|------------|-----------------------------|---------------------------------|
| Definition | Global network of computers | System of interlinked web pages |
| Function | Enables communication | Displays and links information |
| Protocol | TCP/IP | HTTP/HTTPS |
| Access | Via any connected device | Via web browsers |

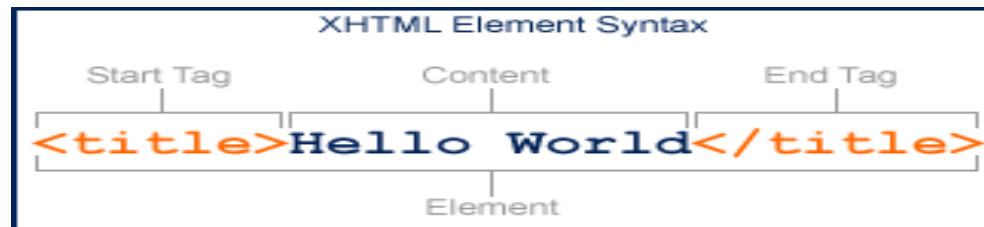


Brief History of HTML

| Year | Progress |
|------|---|
| 1991 | Tim Berners-Lee created HyperText Markup Language but it was not officially released. |
| 1993 | Tim Berners-Lee created the first version of HTML that was published and available to the public. |
| 1995 | HTML 2.0 was released with a few additional features along with the existing features. |
| 1997 | There was an attempt to extend HTML with HTML 3.0, but it was replaced by the more practical HTML 3.2. |
| 1998 | The W3C (World Wide Web Consortium) decided to shift focus to an XML-based HTML equivalent called XHTML. |
| 1999 | HTML 4.01, which became an official standard in December 1999, was the most widely used version in the early 2000s. |
| 2000 | XHTML 1.0, completed in 2000, was a combination of HTML4 in XML. |
| 2003 | The introduction of XForms reignited interest in evolving HTML itself rather than replacing it with new technologies. This new theory recognized that XML was better suited for new technologies like RSS and Atom, while HTML remained the cornerstone of the web. |
| 2004 | A W3C workshop took place to explore reopening HTML's evolution. Mozilla and Opera jointly presented the principles that later influenced HTML5. |
| 2006 | The W3C expressed interest in HTML5 development and formed a working group to collaborate with the WHATWG. The W3C aimed to publish a "finished" HTML5 version, whereas the WHATWG focused on a Living Standard, continuously evolving HTML. |
| 2012 | HTML5 can be seen as an extended version of HTML 4.01, which was officially published in 2012. |

Basic XHTML Concepts

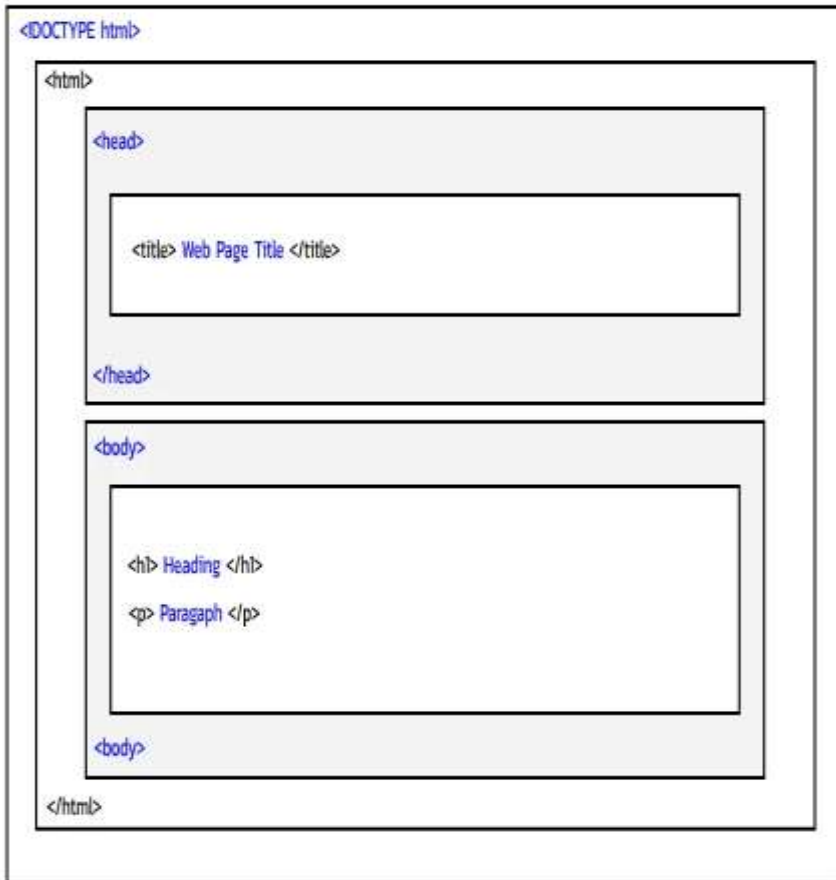
- **XHTML (Extensible HyperText Markup Language)** is a markup language that uses a standardized set of tags to format text in a way that web browsers can understand and display correctly.
- Like any language, XHTML follows specific rules that must be observed to produce the intended results
- This section explores the various types of XHTML tags and how they work in combination with attributes to build effective web pages.
- **Tags:** Tags are text-based elements enclosed in angle brackets (< >) that define how content should appear or behave on a web page.
- Every XHTML tag follows the rules of **XML syntax**, meaning tags must be **properly nested, lowercase, and closed**, even when they're empty.



Common Types of XHTML Tags

| 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 |

HTML Structure

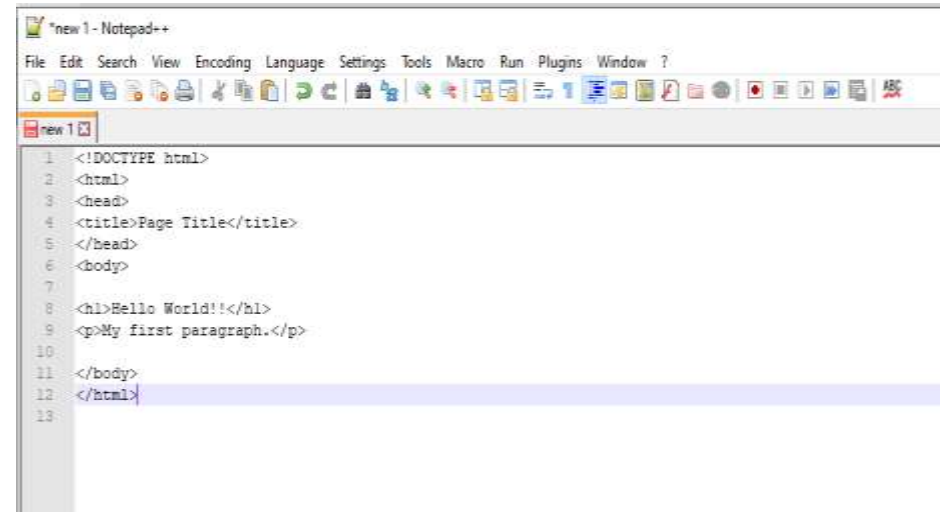


Example Explanation:

- The **<!DOCTYPE html>** declaration defines this document to be HTML5.
- The **<html>** element is the root element of an HTML page.
- The **<head>** element contains meta information about the document.
- The **<title>** element specifies a title for the document.
- The **<body>** element contains the visible page content.
- The **<h1>** element defines a large heading
- The **<p>** element defines a paragraph.

Creating a Simple Document Exercise

1. Click the **Start** to display the menu
2. Select **Notepad** or **Notepad++** to open a blank documents in the text editor Type the text in the Notepad window exactly as shown, pressing Enter at the end of each line.
3. Select **File>Save As** to display the Save As dialogue
4. Type **index.html** in **File name** and select **html** in the **Save as type** field.
5. Click **Run> Launch** in Firefox or **Launch** in IE etc..



A screenshot of the Notepad++ application window. The title bar reads "new 1 - Notepad++". The menu bar includes File, Edit, Search, View, Encoding, Language, Settings, Tools, Macro, Run, Plugins, Window, and ?. The toolbar contains various icons for file operations and editing. The text area shows the following HTML code:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <title>Page Title</title>
5 </head>
6 <body>
7
8 <h1>Hello World!!</h1>
9 <p>My first paragraph.</p>
10
11 </body>
12 </html>
13
```



References

Wikipedia Contributors (2018). Internet. [online] Wikipedia. Available at: <https://en.wikipedia.org/wiki/Internet>.

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jackscreativeblog243734682 (2018). *History of Html*. [online] Webblogging. Available at: <https://webblog559388436.wordpress.com/2018/04/27/history-of-html/>.

Tutorialspoint.com. (2024). HTML - History and Evolution. [online] Available at: https://www.tutorialspoint.com/html/html_history_and_evolution.htm.

A Business Website

LESSON 3

Learning Outcomes

By the end of week 2, students should be able to;

- ❖ Gain an understanding of the purpose of a business website
- ❖ Gain an understanding of points to consider when designing your website
- ❖ Gain an understanding of the business information that you can provide
- ❖ Gain an understanding of the source of content for your website
- ❖ Gain an understanding of the fact to consider for making your site easy to operate
- ❖ Gain an overview of some testing consideration.

Overview

- Creating a successful business website demands considerable time and effort. When properly developed, it can serve as a powerful marketing tool and help boost your sales.
- To achieve this, it is essential to define your website's purpose, decide on the type of content to feature, identify where that content will come from, and plan for any required online transactions.
- Once these elements are set, they need to be presented in a well-organized, visually appealing, and user-friendly format that ensures smooth navigation

Purpose of a Business Website (1/2)

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

Purpose of a Business Website (2/2)

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
- No reliance on third-party platforms
- Customize layout, messaging, and user journey

Designing Elements of a Business Website

- Before creating a business website—whether you're doing it yourself or hiring a professional—there are several important factors you should think through in advance.
- These include:
 - your company's corporate image
 - use of logos, graphics, and animations
 - the tone and style of the language you'll use,
 - making sure the overall design has a consistent and polished appearance throughout the site.
 - Introductory animations
 - Domain names-should reflect your company's name e.g. iti.ac.pg

Conducting Transactions on the Internet

- Many companies aim to integrate e-commerce into their websites, allowing visitors to easily browse products or services, make selections, and complete purchases by entering their contact and payment information. Once that's done, they simply wait for their order to arrive.
- However, to attract buyers and encourage repeat business, there are several important factors to keep in mind.
 - Shopping Cart Experience
 - Security-installed appropriate security measures
 - Privacy-include a privacy policy

Welcome Page (Home Page)

- A **Welcome Page** is typically the **homepage** or an introductory screen that visitors see when they land on your website. Its main purpose is to:
 - **Greet users** and introduce your brand
 - **Highlight your value proposition**
 - **Guide visitors** toward taking a specific action (like signing up, exploring products, or learning more)



ITI's Home Page

WPE Week 2 activities

Refer to print out materials.

- This week, you are required to the following
 1. Open and navigate through the three software: Notepad++, Visual Studio Code & Dreamweaver
 2. Using notepad, notepad++ or Visual Studio code; Create a basic HTML5 webpage.
 3. Open Adobe Dreamweaver and create a webpage
 4. Answer all the review questions listed at the end of this PPT

Note: You can complete these activities in any order, however, make effort to complete each requirement to prepare for your assessments.

Week 2: Review Questions

1. Differentiate between the Internet and WWW.
2. Differentiate between HTML and HTTP
3. What is XHTML?
4. What is a home page?
5. What is an index page?
6. Discuss the meaning of the following html tags
 - a. <head>
 - b. <body>
 - c. <a>
 - d.
 - e.

 - f. <hr>
 - g. <h2>
7. Discuss three purpose of a business website
8. List design elements of a business website
9. What are some of import factors to attract buyers and encourage repeat business?