



Intro to Website Design

WEBSITE DESIGN

Objectives

Describe

Describe the types and purposes of websites



Plan

Plan a website for a target audience



Define

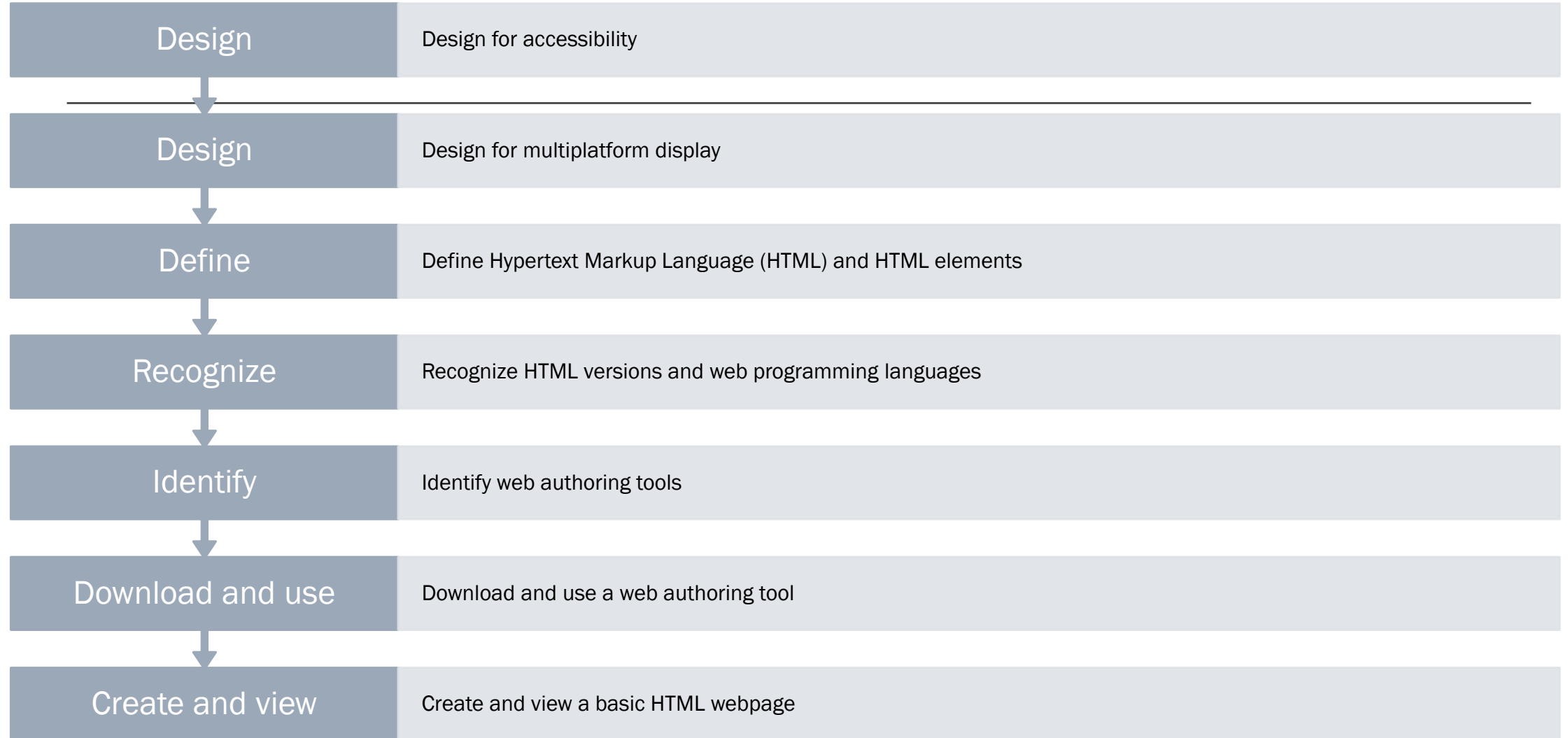
Define a wireframe and a site map



Explain

Explain how websites use graphics, navigation tools, typography, and color

Objectives (continued)



Introduction

Millions of people worldwide have access to the Internet

- World's largest network; billions of webpages
- Used to search for information, communicate with others around the world, and seek entertainment
- HTML 5.2 is the most recent version of HTML and is called HTML 5

Types of Websites



An Internet site is another term for a website that is generally available to anyone with an Internet connection



An intranet is a private network that uses Internet technologies to share company information among employees



An extranet is a private network that uses Internet technologies to share business information with select corporate partners or key customers

Types of Websites (continued)

Many company websites also support electronic commerce (e-commerce)

- The buying and selling of goods and services on the Internet

Educational institutions use a Learning Management System (LMS) to simplify course management

- An LMS is a web-based software application designed to facilitate online learning

Planning a Website

Purpose of the website

- The purpose of a commercial business website is related to the goal of selling products or services

Target audience

- The people who use the website
- Knowing their general demographic background will help to design a website appropriate for them

Multiplatform display

- A responsive design of a website must be created that provides an optimal viewing experience across a range of devices

Wireframe

A simple, visual guide that clearly identifies the location of main webpage elements

- Active white space is an area on the page that is intentionally left blank
- Passive white space is the space between content areas
 - Helps a user focus on one part of the page

Wireframe (continued)

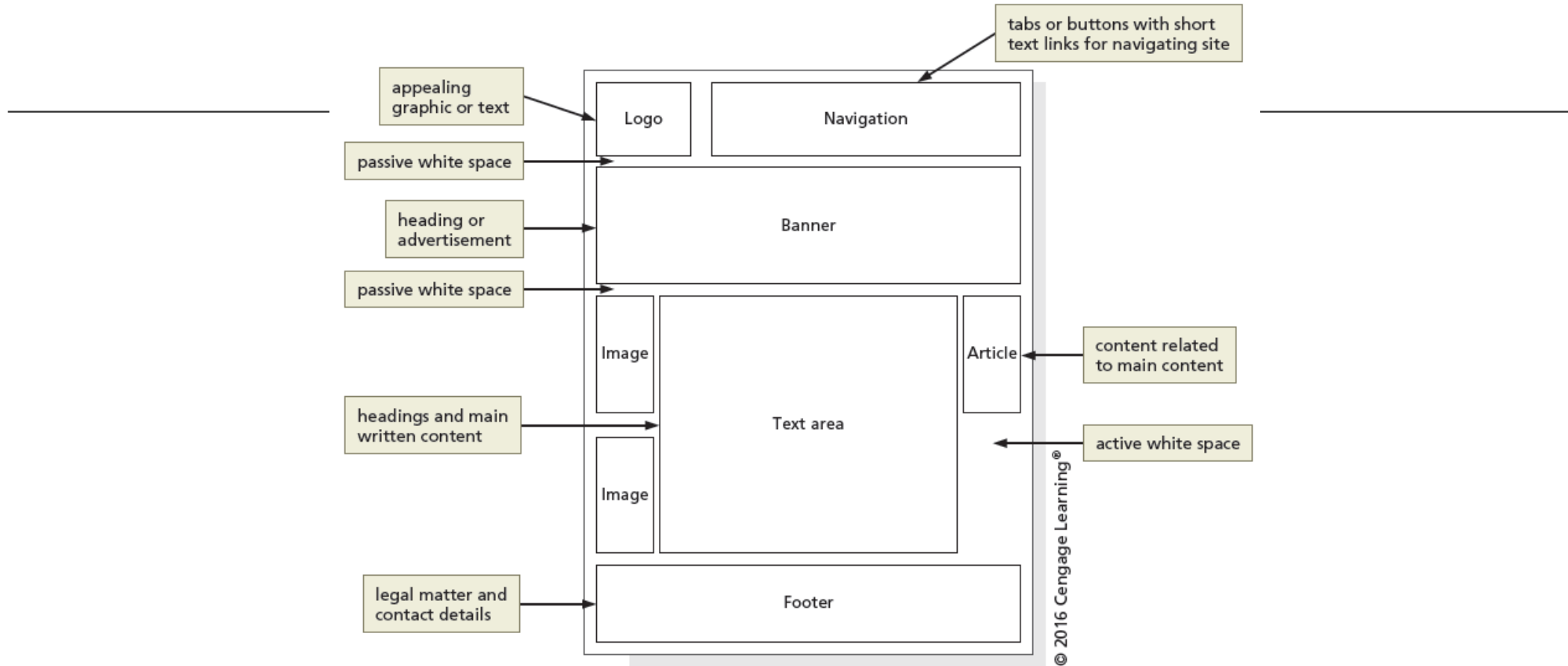


Figure 1-12

Site Map

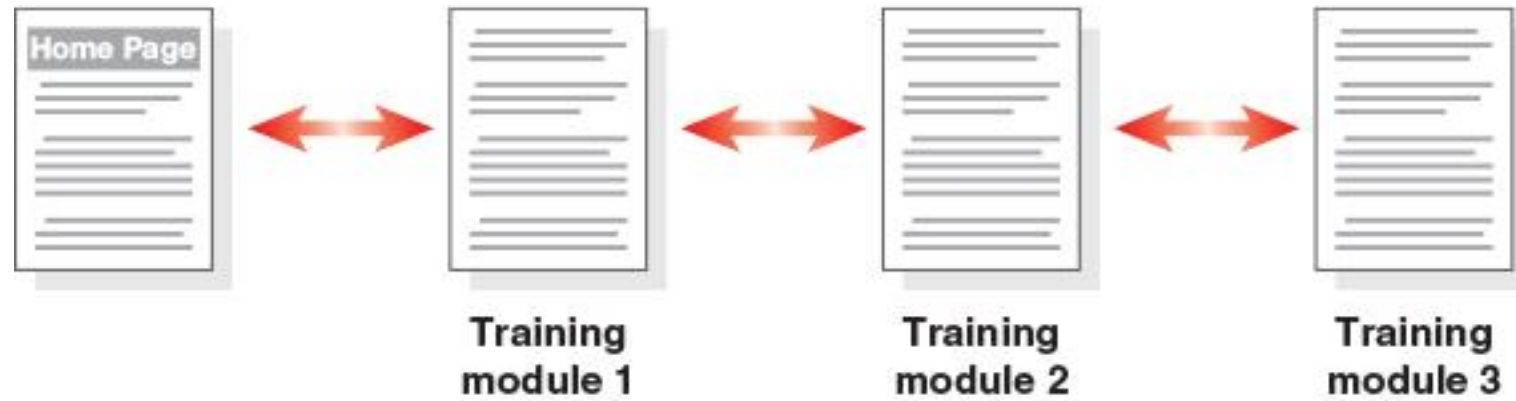
A planning tool that lists or displays all the pages on a website

- Indicates how they are related to each other

Shows the structure of a website

- A linear website structure connects webpages in a straight line
 - In a variation of a linear website structure, each page can include a link to the home page of the website
- A hierarchical website connects webpages in a treelike structure
- A webbed website structure has no set organization

Site Map (continued 1)



Linear structure

Figure 1–13

Site Map (continued 2)

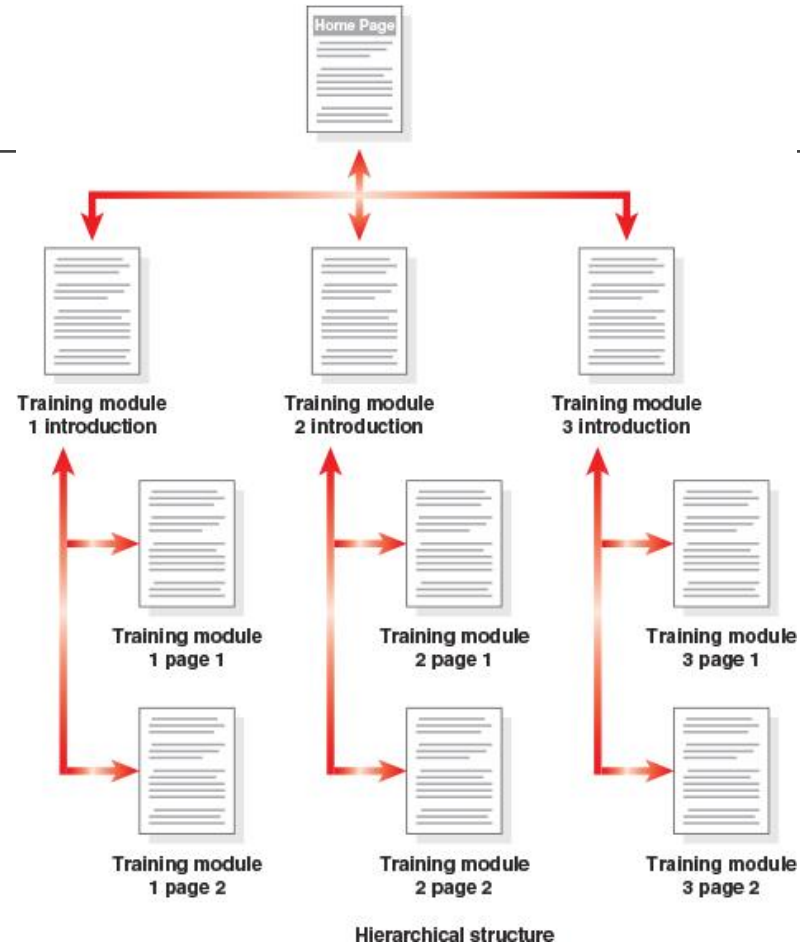


Figure 1-15

Site Map (continued 3)

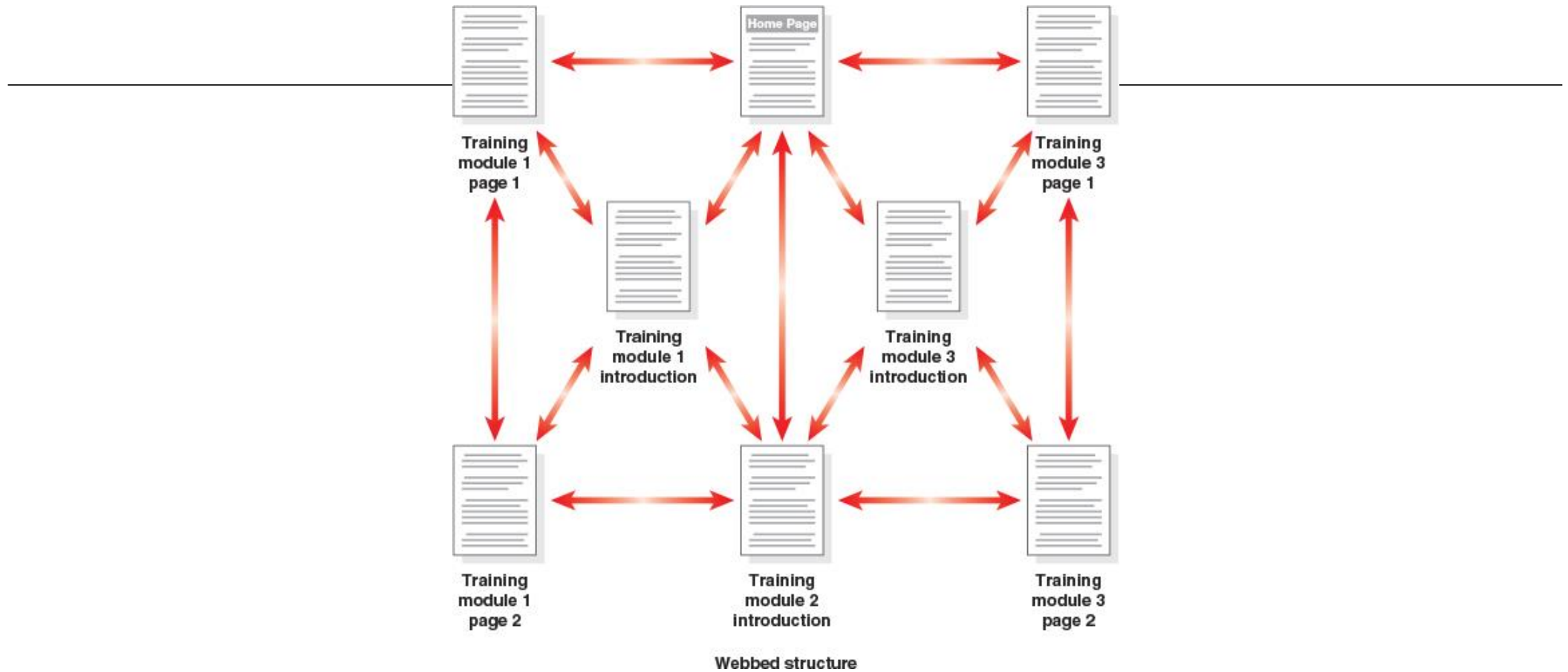


Figure 1-16

Graphics

- Graphics add visual appeal to a webpage and enhance the visitor's perception of the products and services

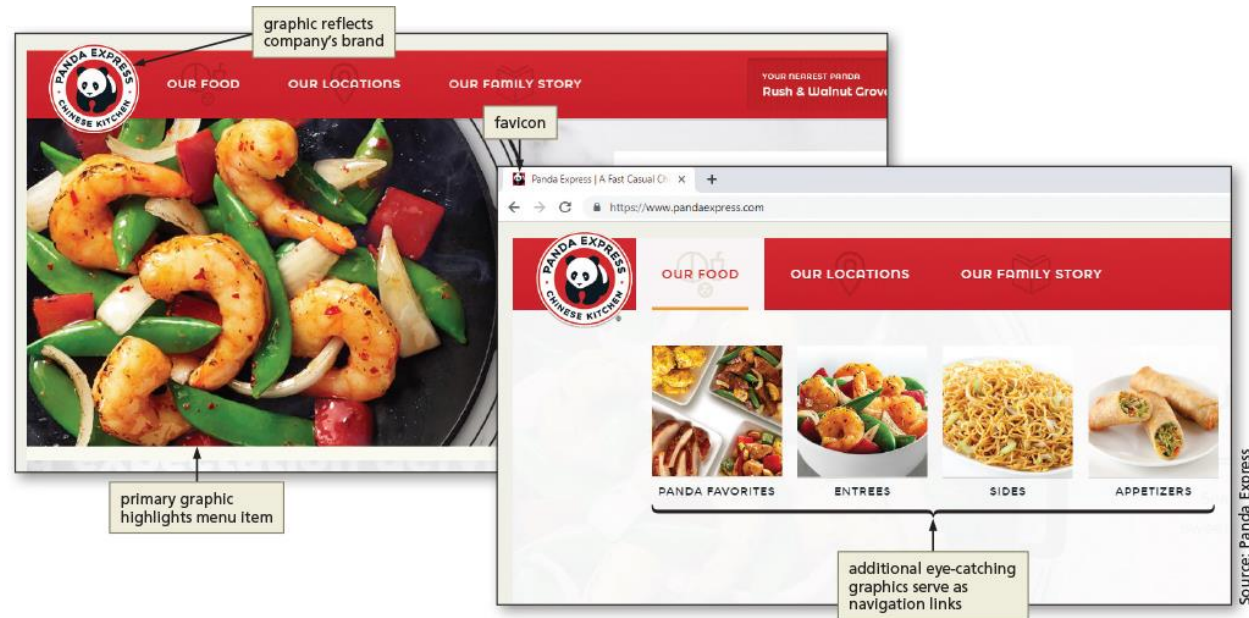


Figure 1–17

Navigation

The navigation of a website should be clear and concise

- Each webpage should have a designated navigation area with links to other pages in the site
- Navigation area should be prominent and easy to use

Typography

The use of effective typography, or fonts and font styles, enhances the visual appeal of a website

- Typography also should promote the purpose and goal of the website

Color

The combination of colors contributes to the appeal and legibility of the website

- Aim to strike a balance among the background color, text color, and the color that represents a brand
- Colors convey meanings

Color (continued)

Color	Common Meaning
Red	Love, romance, anger, energy
Blue	Trust, loyalty, integrity, honesty, dependability
Green	Freshness, friendliness, health, safety, strength
Yellow	Warmth, cheer, joy, excitement, humor
Orange	Energy, warmth, health
Brown	Nature, wholesomeness, simplicity, friendliness
Black	Elegance, tradition, sophistication, formality
White	Purity, honesty, sincerity, cleanliness

Table 1-2: Common Color Meanings

Accessibility

A web designer should create pages for viewing by a diverse audience, including people with physical impairments and global users

- The World Wide Web Consortium (W3C) develops and maintains web standards, language specifications, and accessibility recommendations

Accessibility Standards for Webpage Developers

According to W3C, the goal of the web is to be accessible to all people, including those with a disability that limits their ability to perform computer tasks

- The Rehabilitation Act of 1973 prohibits discrimination against those with disabilities

WCAG 2.0 and 2.1 guidelines are organized under four principles

- Perceivable, operable, understandable, and robust

Planning Checklist

Navigation, typography, color, and accessibility are the basic webpage design criteria to consider when developing a website

- A sophisticated website requires additional design considerations and research of the business, its competition, and a complete business analysis

Understanding the Basics of HTML

Webpages are created using Hypertext Markup Language (HTML)

- Authoring language used to create documents for the web
- Consists of a set of special instructions called tags to define the structure and layout of content in a webpage
- HTML tags define or “mark up” the content on the webpage, due to which it is considered a markup language rather than a traditional programming language

HTML Elements and Attributes

A webpage is a text file that contains both content and HTML tags and is saved as an HTML document

- An HTML element consists of everything from the start tag to the end tag
- HTML elements can be enhanced by using attributes, which define additional characteristics, or properties, of an element

HTML Elements and Attributes (continued 1)

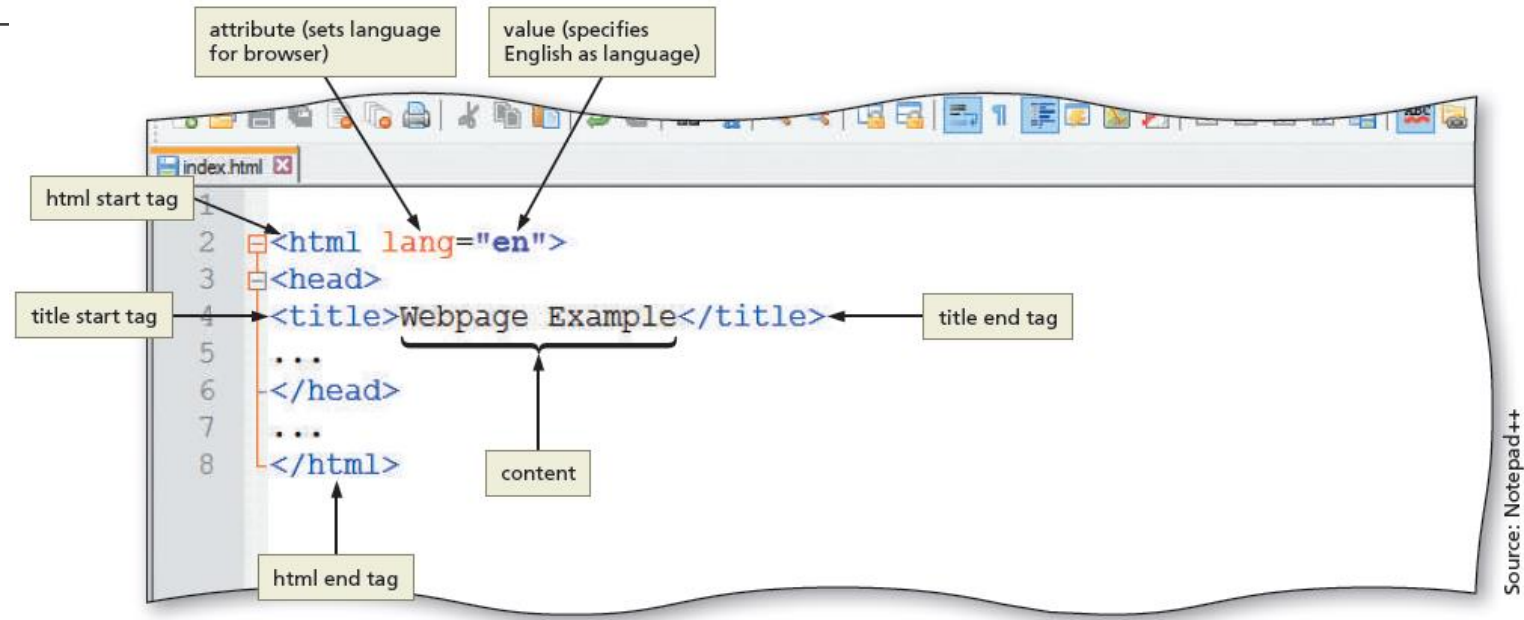


Figure 1–21

HTML Elements and Attributes (continued 2)

HTML combines tags and descriptive attributes that define how a document should appear in a web browser

- HTML elements include headings, paragraphs, hyperlinks, lists, and images, have a start tag and an end tag, and follow the same rules, or syntax

HTML Elements and Attributes (continued 3)

HTML elements are called paired tags and use the syntax `<start tag> content </end tag>`, which has the following meaning:

- HTML elements begin with a start tag, or opening tag, such as `<title>`
- HTML elements finish with an end tag, or closing tag, such as `</title>`
- Content is inserted between the start and end tags

HTML Elements and Attributes (continued 4)

Some HTML elements are void of content

- They are called empty, or void, tags
 - Examples of empty tags are `
` for a line break and `<hr>` for a horizontal line, or rule
 - The syntax for empty tags is `<tag>`

HTML Elements and Attributes (continued 5)

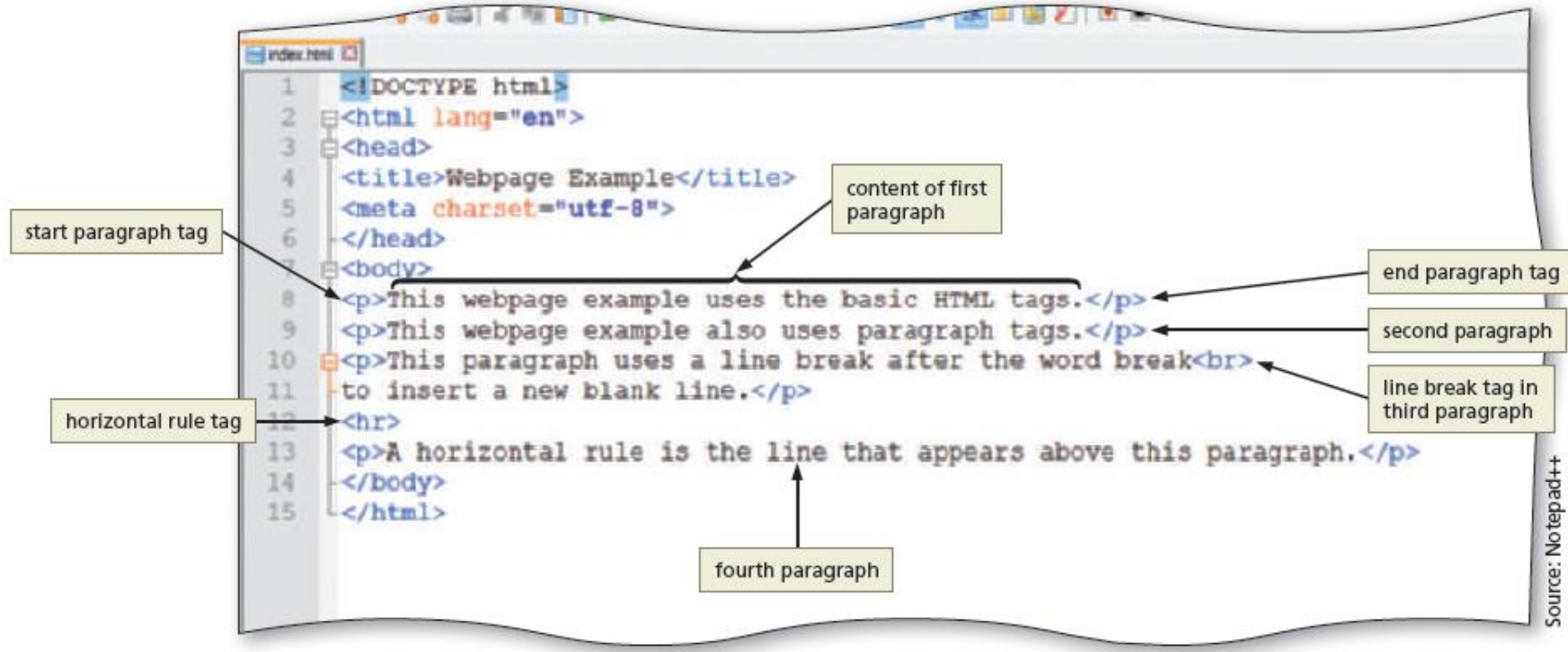


Figure 1–22

HTML Elements and Attributes (continued 6)

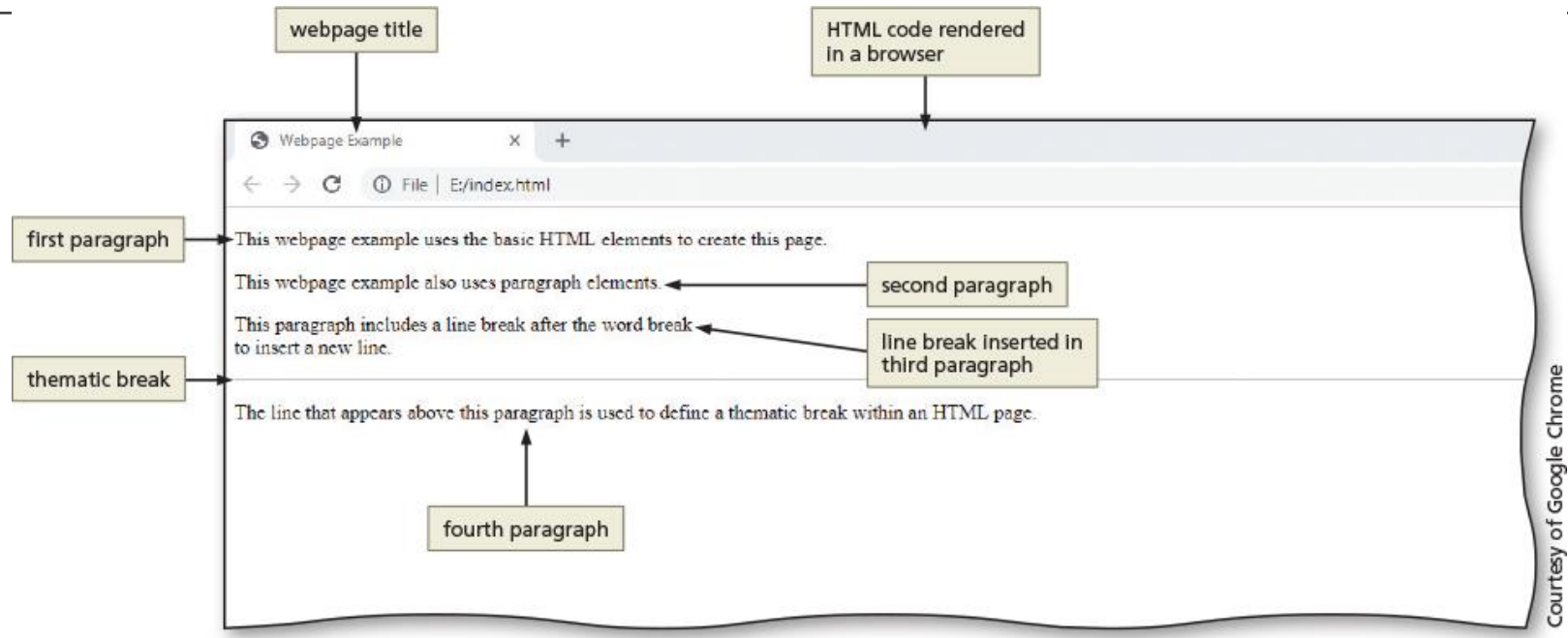


Figure 1–23

Technologies Related to HTML



XML: W3C introduced XML (Extensible Markup Language) in 1998 to exchange and transport data



XHTML (Extensible Hypertext Markup Language): rewritten version of HTML using XML that was developed in 2000 and is accepted on mobile device platforms

HTML 5

The most recent version of HTML

- Introduces several new elements such as header, nav, main, and footer to better define the areas of a webpage
 - Classified as structural elements because they define the structure of a webpage
 - Also known as semantic HTML elements because they provide meaning about the content of the tags
- Provides a more flexible approach to web development

Understanding the Role of Other Web Programming Languages

JavaScript: popular client-side scripting language used to create interactivity within a web browser

- The webpages that contain JavaScript are named with an .htm or .html extension

jQuery: library of JavaScript programs designed for easy integration onto a webpage

- Makes it easy for web developers to add JavaScript to a webpage

Understanding the Role of Other Web Programming Languages (continued)

PHP (Hypertext Preprocessor): open-source server-side scripting language used for common tasks such as writing to or querying a database located on a central server

- Pages that contain PHP scripts must have file names that end with the file extension .php

ASP (Active Server Pages): server-side scripting technology

- Pages that contain ASP scripts must have file names that end with the file extension .asp

Using Web Authoring Tools

Webpages can be created using HTML with a simple text editor, such as Notepad++ or Sublime

- A text editor program allows one to enter, change, save, and print text, which includes HTML tags
- An HTML editor is a program that provides basic text-editing functions, and advanced features such as color-coding for various HTML tags, menus to insert HTML tags, and a spelling checker
- HTML is platform independent

Text Editors

Notepad++ is a free, open-source text editor

- Used to create files in several markup, scripting, and programming languages, including HTML, CSS, JavaScript, PHP, Java, C#, and Visual Basic

Atom is another free, open-source text editor you can use to create webpages

- Available for Windows, macOS, or Linux
- Brackets is another cross-platform text editor

TextMate is a free, open-source text editor available for macOS 10.9 or a later version

WYSIWYG and Online Code Editors

WYSIWYG editors

- What You See Is What You Get
 - These editors provide a graphical user interface to design a webpage
 - They allow users to drag HTML elements onto the page while the editor writes the code
- Adobe Dreamweaver is a popular WYSIWYG editor

Online code editors

- No software installation required

Creating a Basic Webpage

Every HTML webpage includes basic HTML tags

- Refer to the text to review the steps provided
 - Start Notepad++ and create a blank document
 - Add basic HTML tags to a document
 - Add a title and text to a webpage
 - Save a webpage
 - View a webpage in a browser
 - Information on using a different text editor

Summary

Essential roles of HTML
in creating webpages
and reviewed tools
used to create HTML
documents

How to create a basic
HTML webpage