



MMGD0204

Web Application Technologies

Chapter 2

HTML BASICS

Chapter 2 – HTML Basics

Web Design

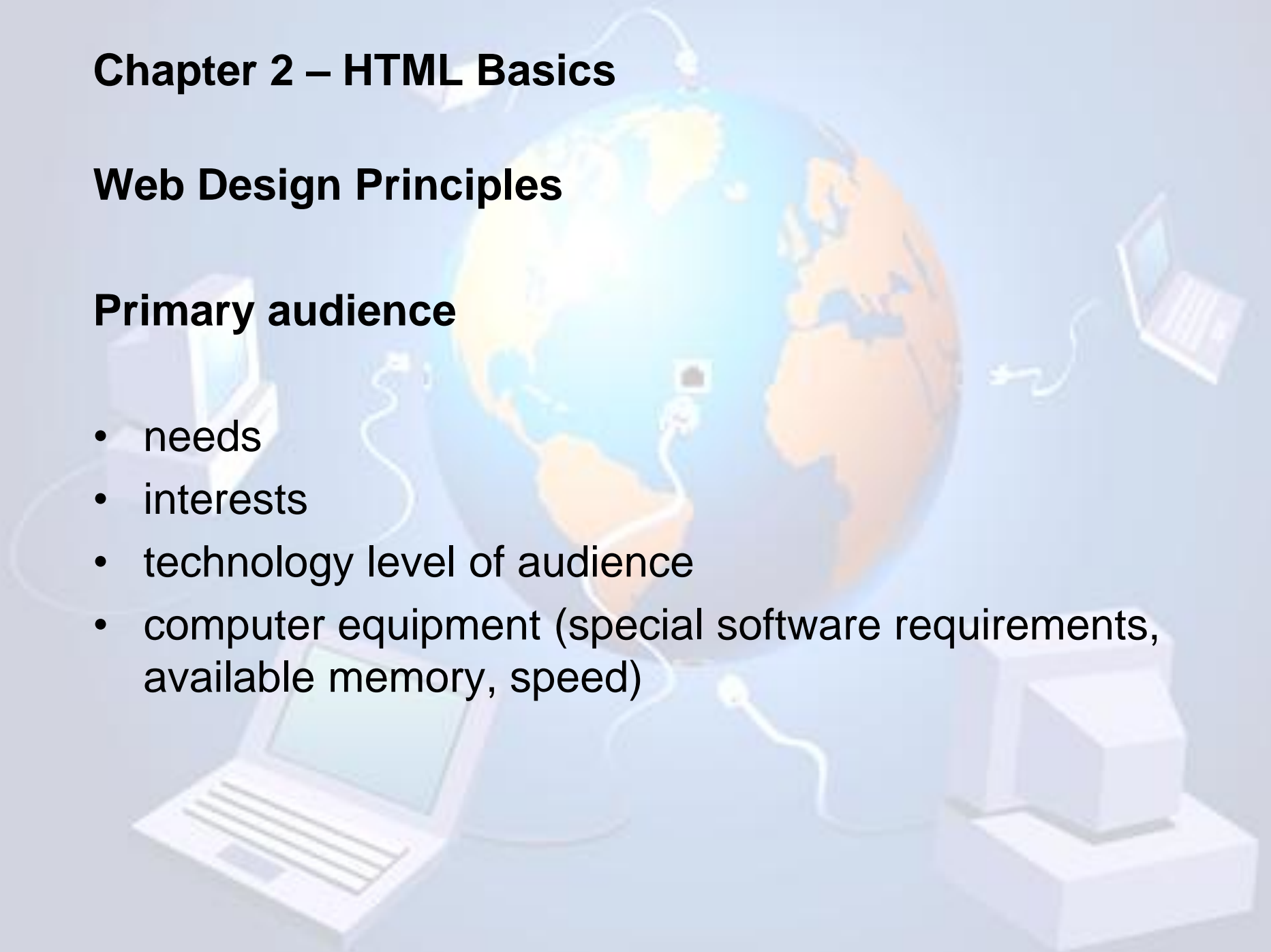
- **Web design** is a broad term used to encompass the way that content (usually hypertext or hypermedia) is delivered to an end-user through the World Wide Web, using a web browser or other web-enabled software to display the content.
- The intent of web design is to create a website – a collection of online content including documents and applications that reside on a web server/servers.
- A website may include text, images, sounds and other content, and may be interactive.

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Web Design Principles

Primary audience

- needs
- interests
- technology level of audience
- computer equipment (special software requirements, available memory, speed)

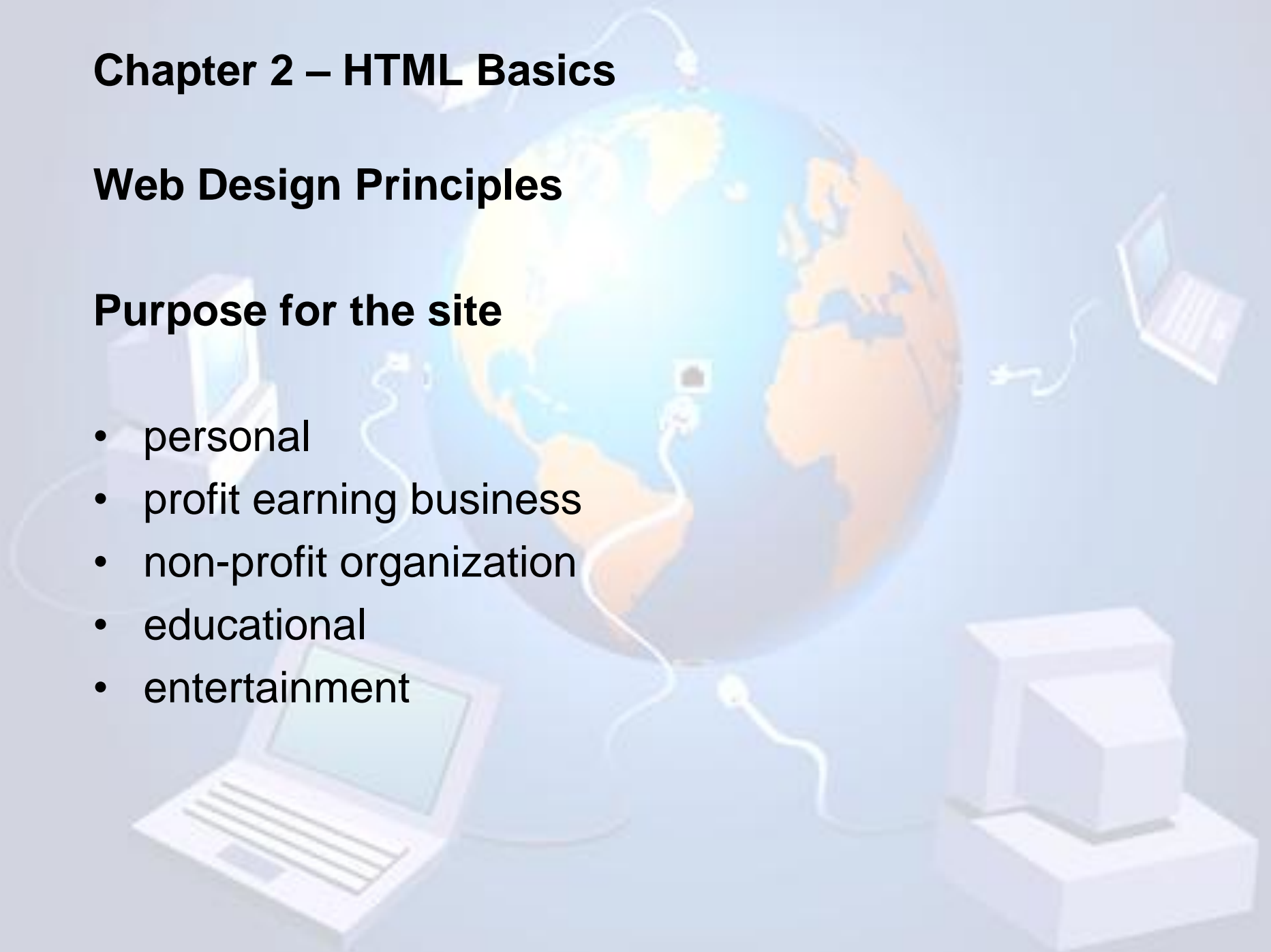


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Web Design Principles

Purpose for the site

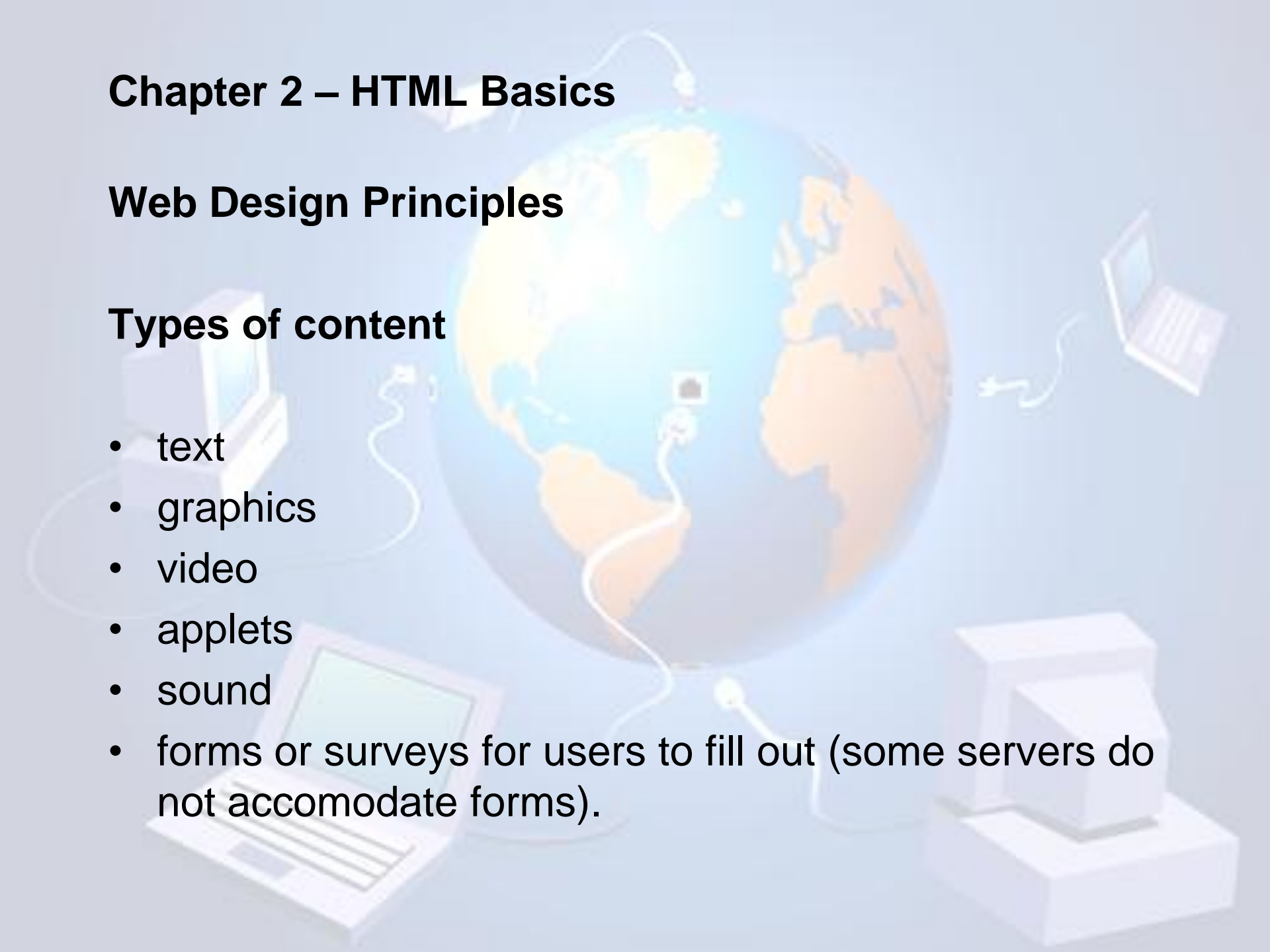
- personal
- profit earning business
- non-profit organization
- educational
- entertainment



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Web Design Principles

Types of content

- text
 - graphics
 - video
 - applets
 - sound
 - forms or surveys for users to fill out (some servers do not accomodate forms).
- 

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Web Design Principles

Information provided on the "home" page

- a "who we are" or "who I am" message
- a mission or purpose statement
- contact information
- update notice
- copyright notice
- disclaimer (for ex: Though we try to keep the information up-to-date, some information may not be the most current. OR "This list does not constitute an endorsement of any one or more of the products .")

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Web Design Principles

Content (the key to a good site):

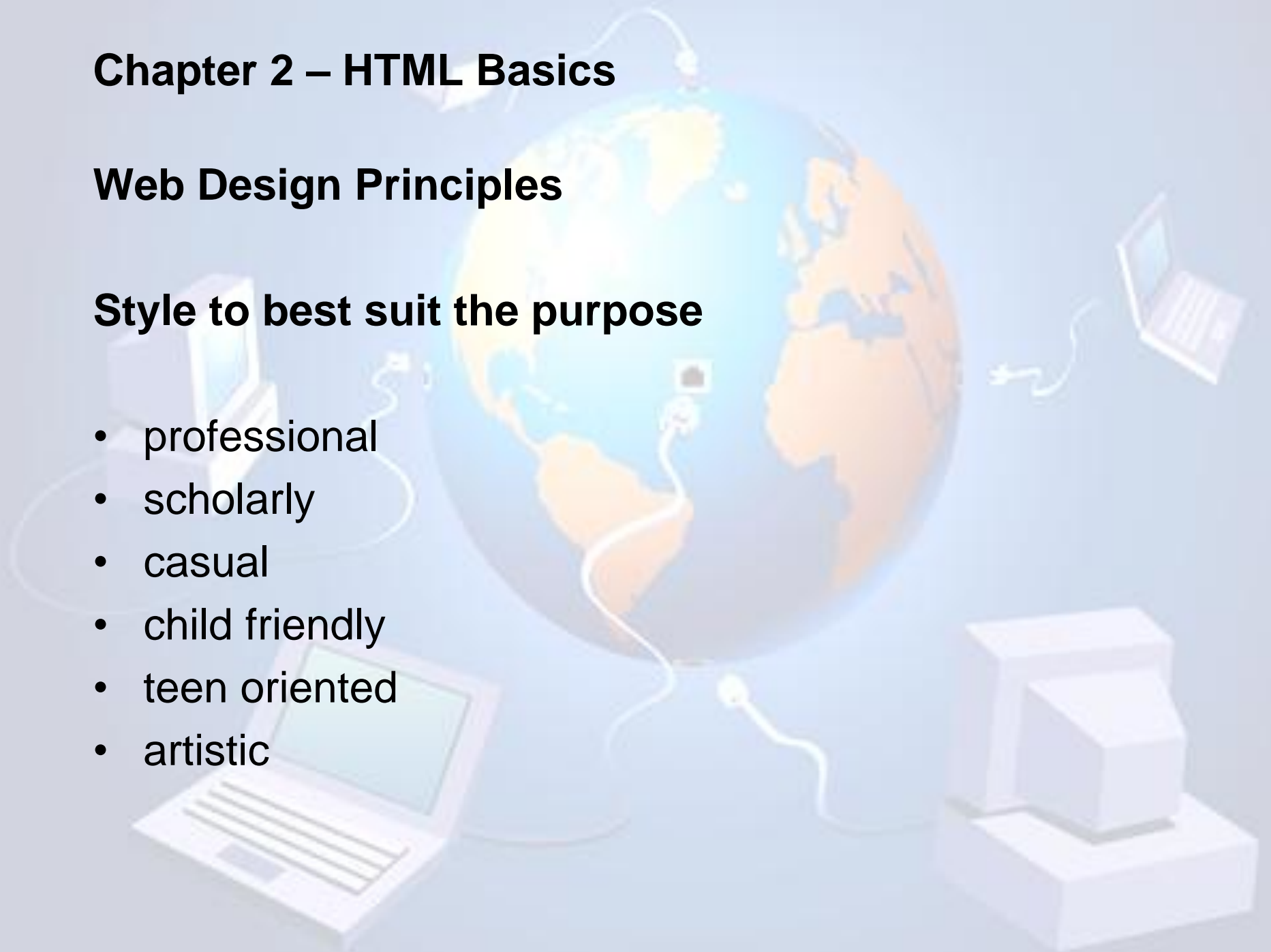
- should match the purpose
- should be well organized
- should be spellchecked
- should observe correct english (or the appropriate language). Some sites have information in more than one language, depending upon the possible audiences.
- should be current information
- should be appropriate for the audience

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Web Design Principles

Style to best suit the purpose

- professional
- scholarly
- casual
- child friendly
- teen oriented
- artistic



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Web Design Principles

Page design - consistency, clarity, user friendliness:

- Include a "back to home" link
- Use a consistent template on each page
- Create a uniform color scheme (with limited color palate)
- Be sure there is sufficient contrast between background and text
- Avoid a too large font that SHOUTS
- Avoid a too small font that is hard to read

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Web Design Principles

Page design - consistency, clarity, user friendliness:

- Place important information near the top
- Avoid long lists of links if possible.
- Categorize lists in smaller chunks and provide internal tags
- Provide a table of contents (with links to find information in a long list)
- Organize your material to too much scrolling to find content

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Web Design Principles

Resolution:

- Standard for screen resolution is 800 (width) by 600 (height).
- If you design for a higher resolution the user may have to scroll back and forth or up and down to view your full content.

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Web Design Principles

Graphics:

- .jpg image format (compressed file format for high quality images - photographs). While working on photographs, save in .tiff format, or program default, until the final quality and size is achieved, then save in .jpg. This saves the image quality.
- .gif image format (for graphics files, buttons, clip art not photographic quality). The quality does not degrade when working with .gif files.

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Web Design Principles

Graphics:

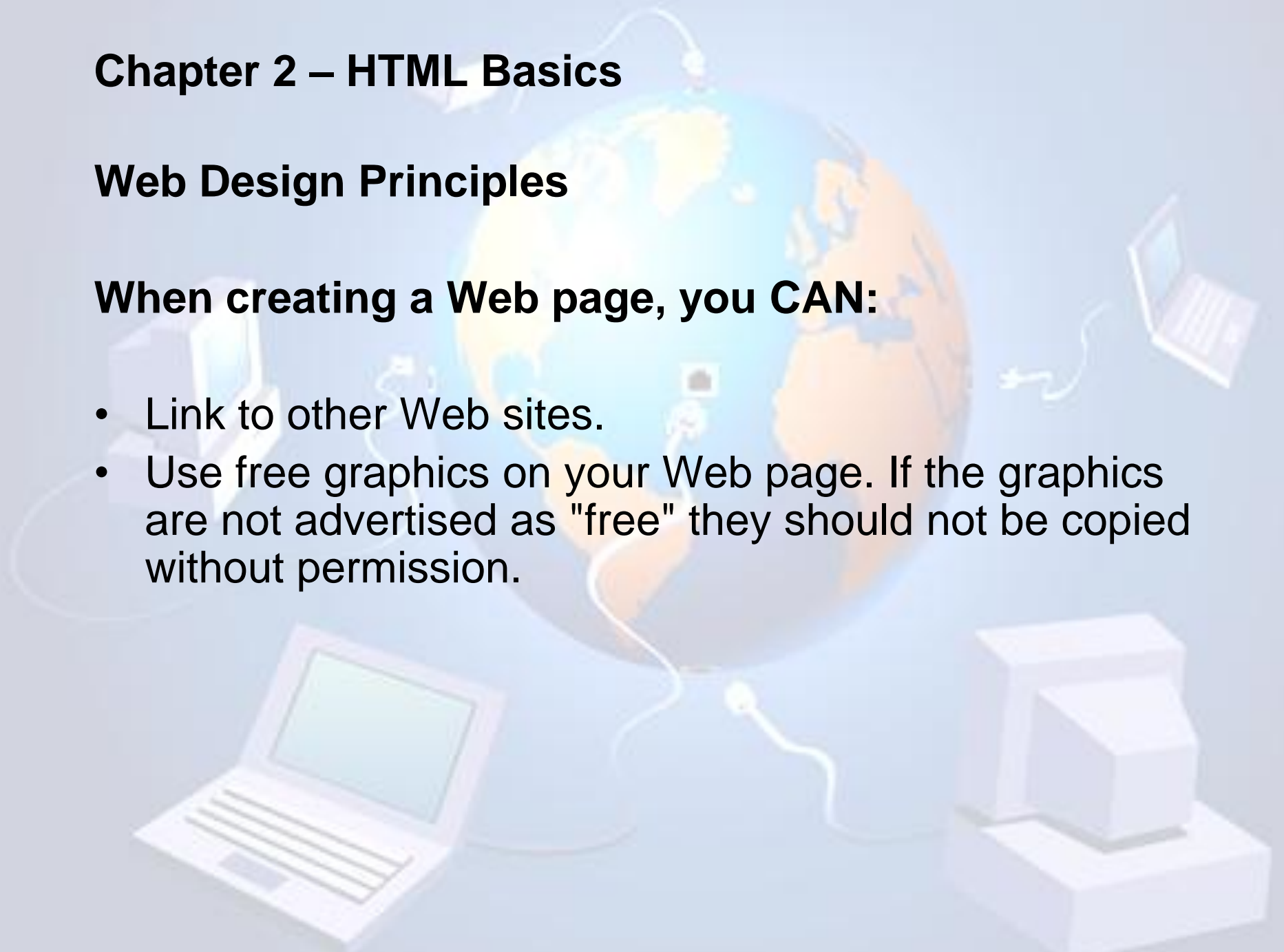
- Animated .gif files (Use sparingly. Is animation appropriate to the theme or a distraction from your main purpose?)
- Flash animation (Provide a "turn off" option for flash). Too many "bells and whistles" can be overpowering. Does the flash compliment the site? Or is it there to say "See what I can do?"

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Web Design Principles

When creating a Web page, you CAN:

- Link to other Web sites.
- Use free graphics on your Web page. If the graphics are not advertised as "free" they should not be copied without permission.



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Web Design Principles

Protect your privacy and reputation online:

- Don't disclose private information about yourself or others.
- Don't give out home phone numbers or home addresses.
- What you link to helps define who you are and what your organization represents.
- Avoid exaggerated claims if promoting a product or organization.
- Cite sources of information.
- Observe copyright rules.
- Use original graphics or free graphics or clipart.

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Introduction to Hyper Text Markup Language (HTML)

- The authoring language used to create documents on the World Wide Web.
- HTML is not a programming language, it is a **markup language**
- A markup language is a set of **markup tags**
- HTML defines the structure and layout of a Web document by using a variety of tags and attributes.

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HTML Tags

- HTML markup tags are usually called HTML tags
- HTML tags are keywords surrounded by **angle brackets** like `<html>`
- HTML tags normally **come in pairs** like `` and ``
- The first tag in a pair is the **start tag**, the second tag is the **end tag**
- Start and end tags are also called **opening tags** and **closing tags**

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HTML Documents

- HTML documents **describe web pages**
- HTML documents **contain HTML tags** and plain text
- HTML documents are also **called web pages**
- HTML documents have an extension `.htm` or `.html`.



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HTML 5

- HTML5 is the latest standard for HTML.
- HTML5 was designed to replace both HTML 4, XHTML, and the HTML DOM Level 2.
- It was specially designed to deliver rich content without the need for additional plugins. The current version delivers everything from animation to graphics, music to movies, and can also be used to build complicated web applications.
- HTML5 is also cross-platform. It is designed to work whether you are using a PC, or a Tablet, a Smartphone, or a Smart TV.

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HTML 5

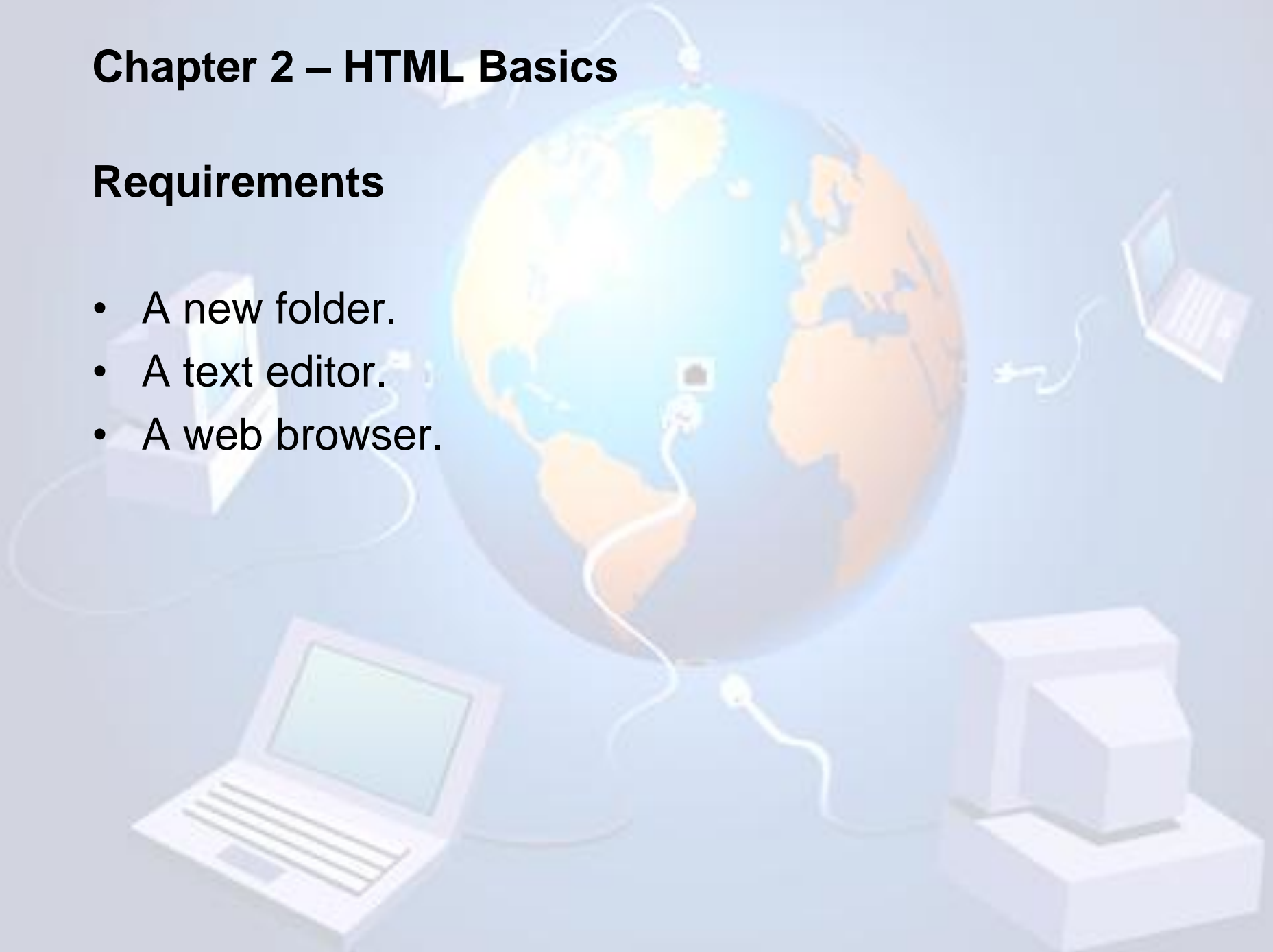
Some of the most interesting new features in HTML5 are:

- The `<canvas>` element for 2D drawing
- The `<video>` and `<audio>` elements for media playback
- Support for local storage
- New content-specific elements, like `<article>`, `<footer>`, `<header>`, `<nav>`, `<section>`
- New form controls, like calendar, date, time, email, url, search

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Requirements

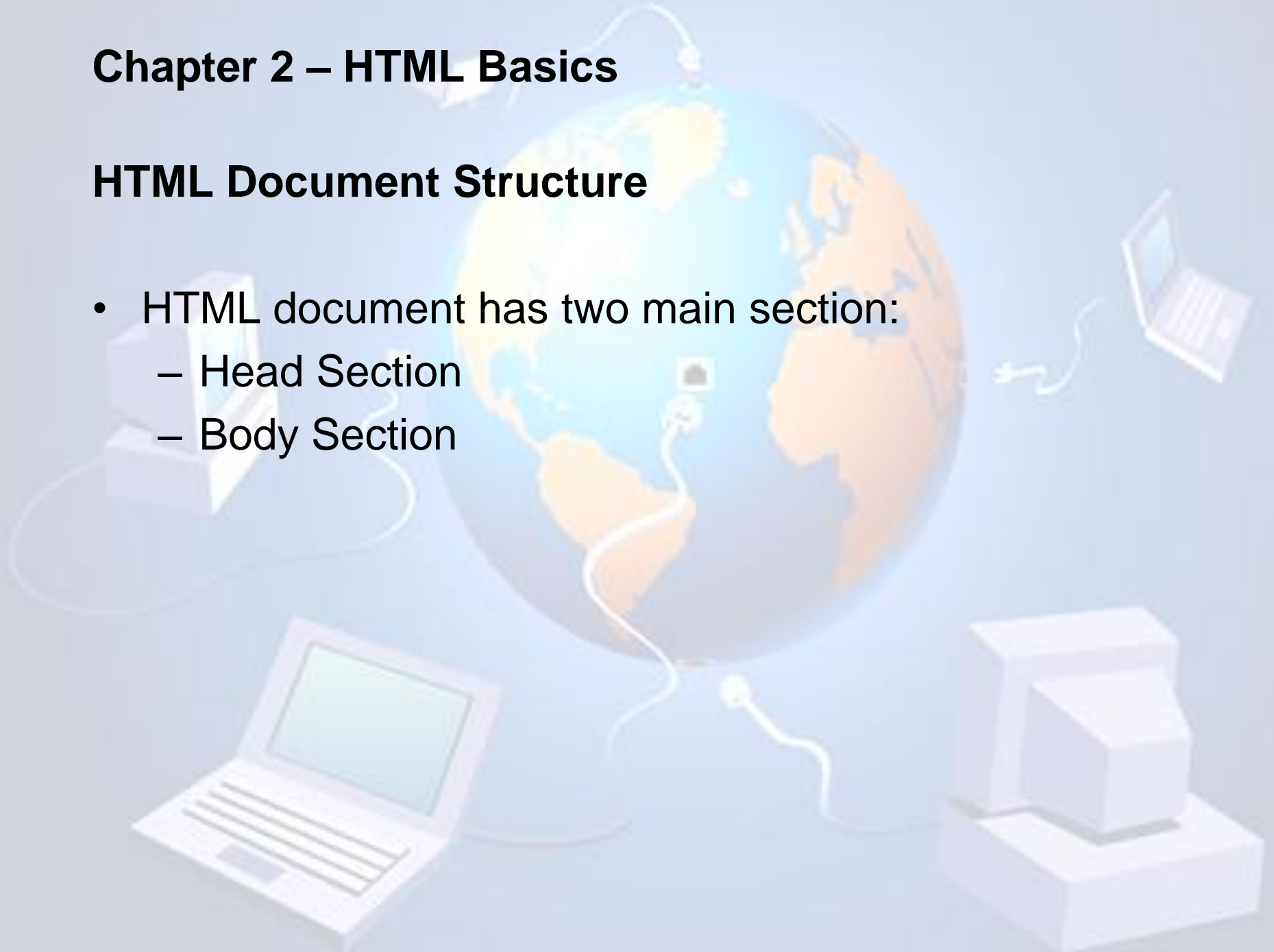
- A new folder.
- A text editor.
- A web browser.



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HTML Document Structure

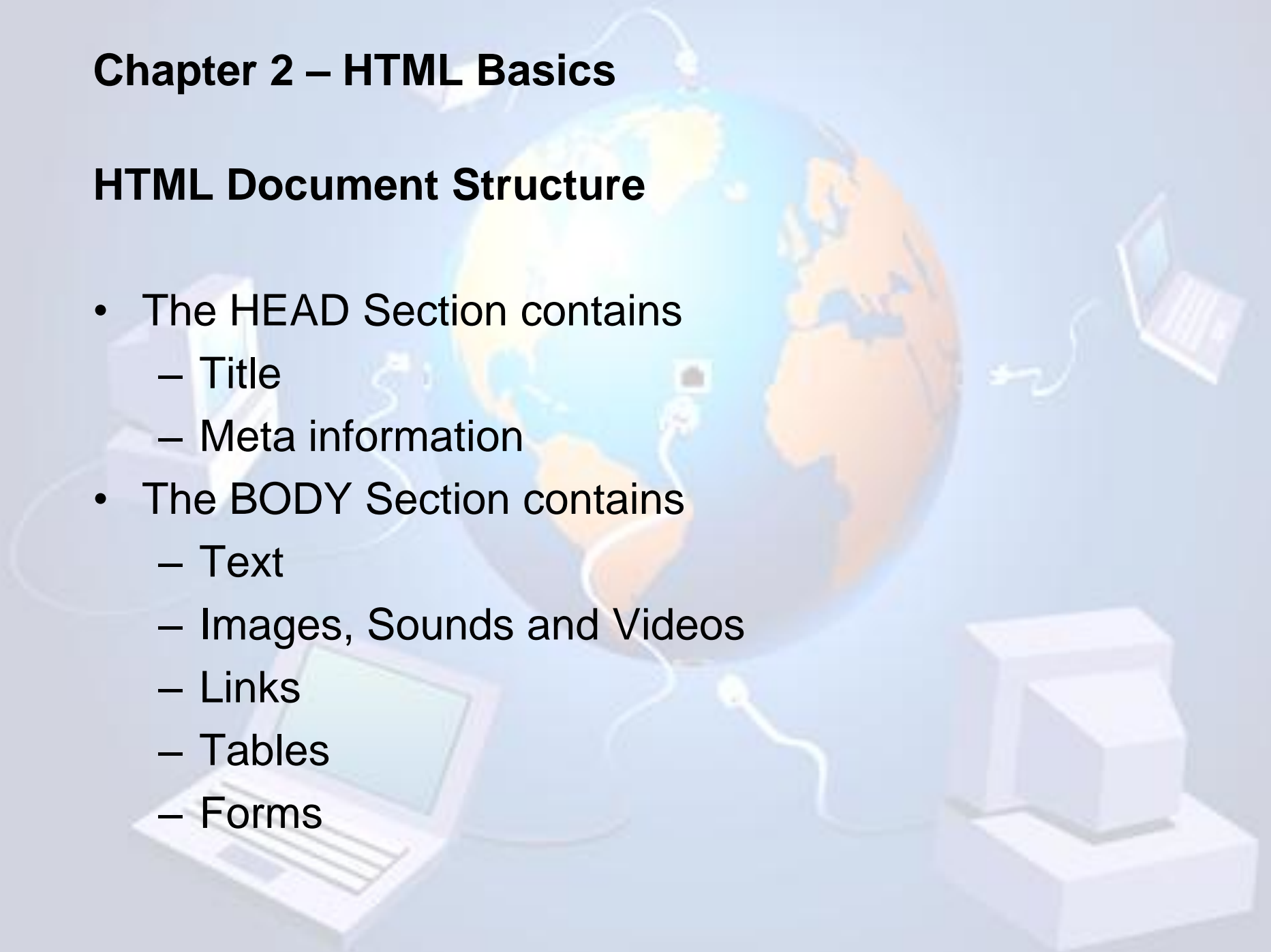
- HTML document has two main section:
 - Head Section
 - Body Section



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HTML Document Structure

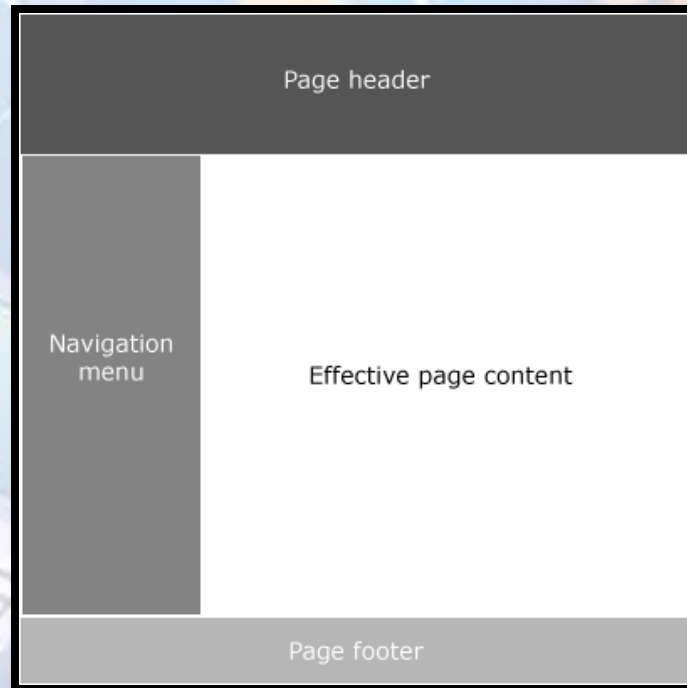
- The HEAD Section contains
 - Title
 - Meta information
- The BODY Section contains
 - Text
 - Images, Sounds and Videos
 - Links
 - Tables
 - Forms



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HTML Document Structure

- Most Web pages, whether home or content pages, have a similar basic structure.
- Here is the layout of a typical Web page:



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HTML Document Structure

- **The Header** usually contains the website logo and name, probably a menu and a search box.
- **The navigation menu**, sometimes as a column on the right or the left of the page that contains the site categories, subsections or other information to guide you on the website.
- **Effective page content**, that is usually located after the header.
- **The page footer** that contains copyright, privacy information and other "not so interesting stuff".

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HTML Elements

- HTML documents are defined by HTML elements.
- An HTML element is everything from the start tag to the end tag.
- An HTML element starts with a **start tag / opening tag**
- An HTML element ends with an **end tag / closing tag**
- The **element content** is everything between the start and the end tag
- Empty elements are **closed in the start tag**
- Most HTML elements can have **attributes**

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HTML Elements Syntax

`<Start Tag>Type something here</End Tag>`



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HTML Attributes

- HTML elements can have **attributes**
- Attributes provide **additional information** about the element
- Attributes are always specified in **the start tag**
- Attributes come in name/value pairs like:
name="value"

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HTML Attributes - Example

- Without attribute:

```
<table>
```

```
</table>
```

- With attribute:

```
<table border="1" align="center" width="50%">
```

```
</table>
```

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`<!DOCTYPE>` and `<HTML>` Tag

- The `<!DOCTYPE>` declaration must be the very first thing in your HTML document, before the `<html>` tag.
- The `<!DOCTYPE>` declaration is not an HTML tag; it is an instruction to the web browser about what version of HTML the page is written in.
- Every HTML document must start and end with `<html>` tag.
- The `<html>` tag tells the browser that this is an HTML document.
- The `html` element is the outermost element in HTML and XHTML documents. The `html` element is also known as the root element.

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<HTML> Tag - Syntax

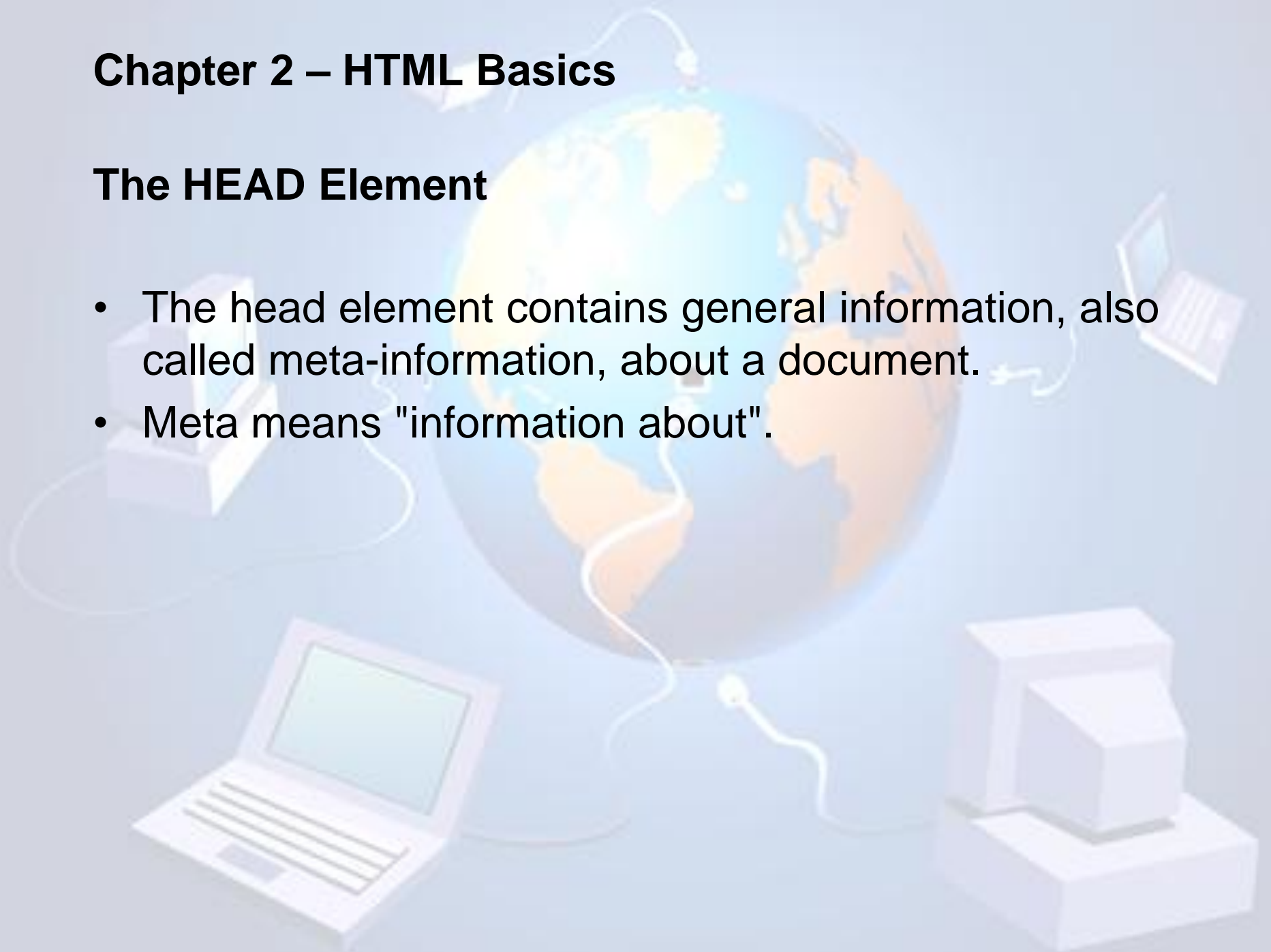
```
<!DOCTYPE html>  
<html>  
...  
</html>
```



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The HEAD Element

- The head element contains general information, also called meta-information, about a document.
- Meta means "information about".



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<HEAD> Tags

Tag	Description
<head>	Defines information about the document
<title>	Defines the document title
<meta>	Defines meta information

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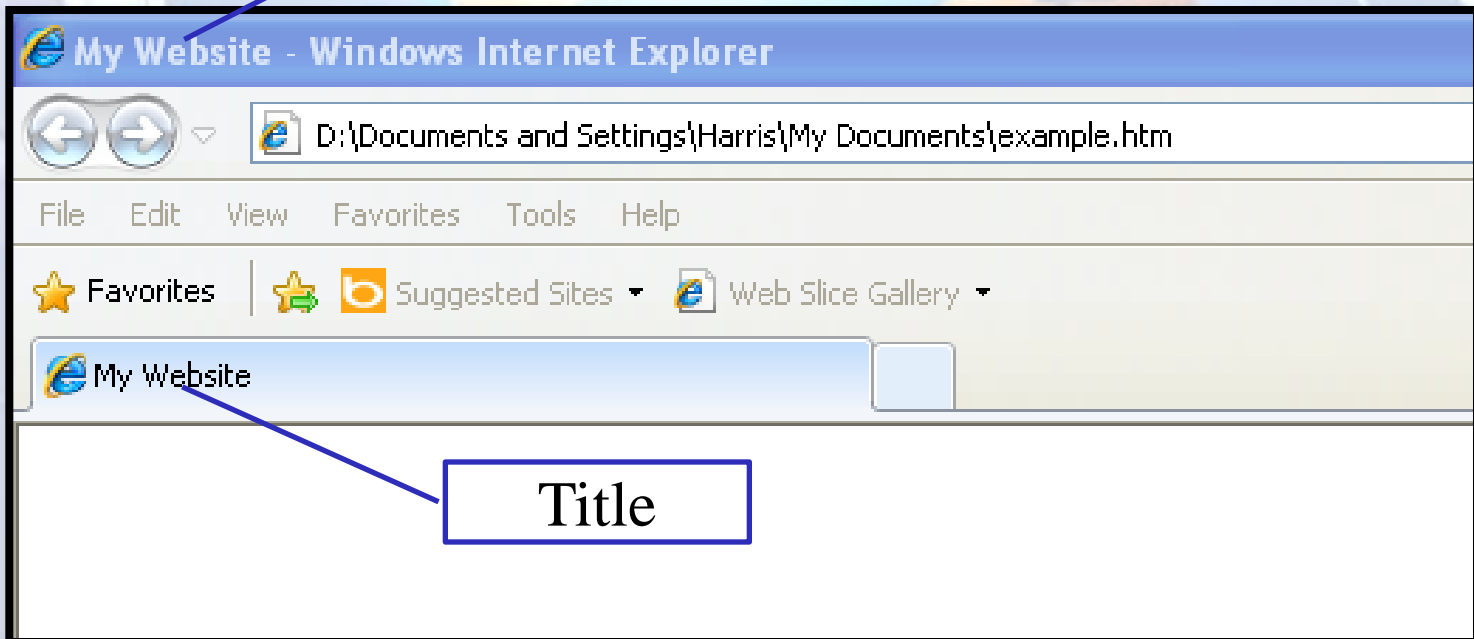
<HEAD> Tags – Example

```
<head>  
<title>My Website</title>  
<meta name="author" content="Mohd Harris">  
<meta name="keywords" content="html,tutorial">  
<meta name="description" content="This website contain HTML  
tutorials">  
</head>
```

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<HEAD> Tags – Example

Title

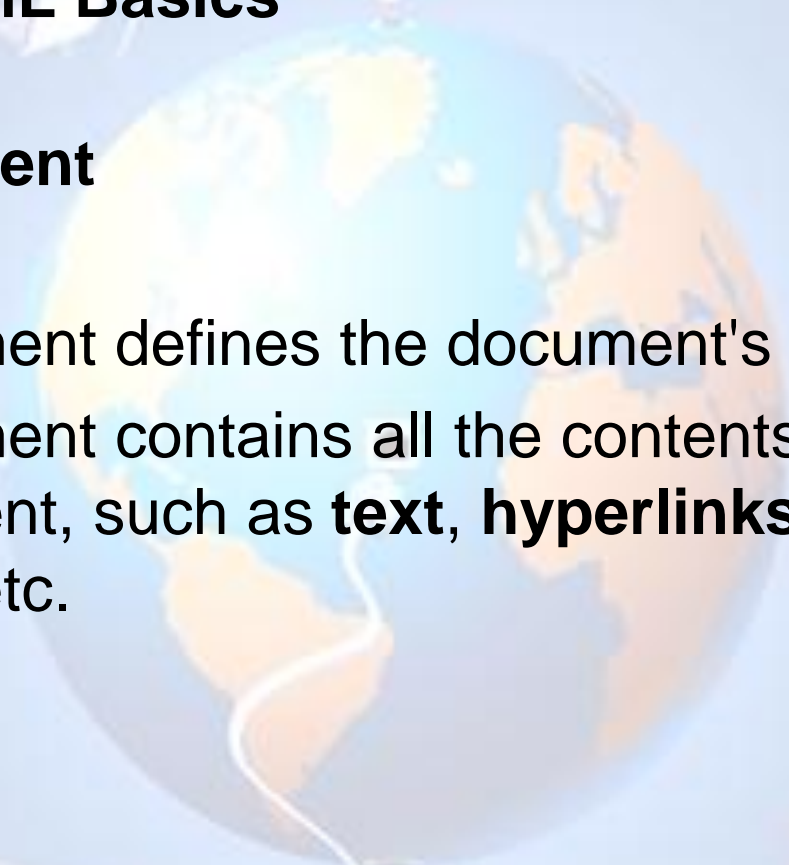


Title

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The BODY Element

- The body element defines the document's body.
- The body element contains all the contents of an HTML document, such as **text**, **hyperlinks**, **images**, **tables**, **lists**, etc.



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<BODY> Tag

Attribute	Value	Description
background	Filename, URL	Specifies a background image for a document
bgcolor	Colorname	Specifies the background color of a document
text	Colorname	Specifies the color of the text in a document
link	Colorname	Specifies the default color of unvisited links in a document

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<BODY> Tag

Attribute	Value	Description
alink	Colorname	Specifies the color of an active link in a document
vlink	Colorname	Specifies the color of the visited links in a document

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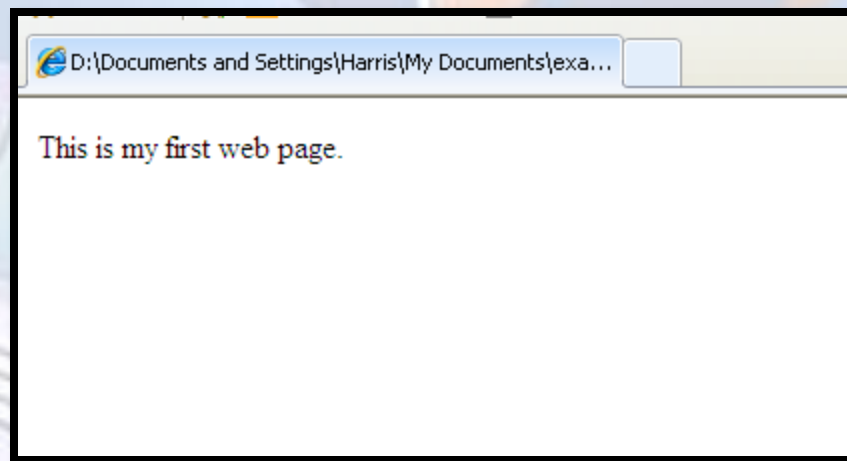
<BODY> Tag – Example 1

- Without any attribute.

```
<body>
```

```
This is my first web page.
```

```
</body>
```

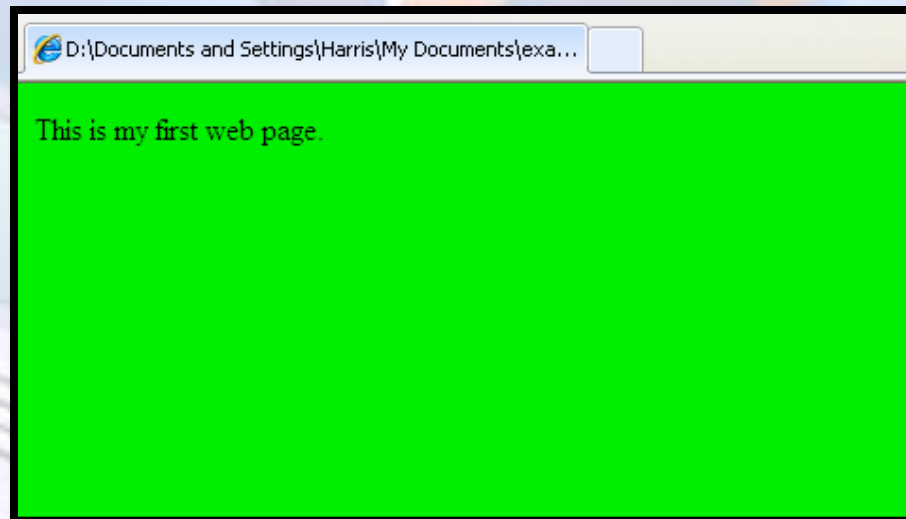


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<BODY> Tag – Example 2

- With background color

```
<body bgcolor="green">  
This is my first web page.  
</body>
```



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<BODY> Tag – Example 3

- With background image

```
<body background="bg01.gif">  
This is my first web page.  
</body>
```

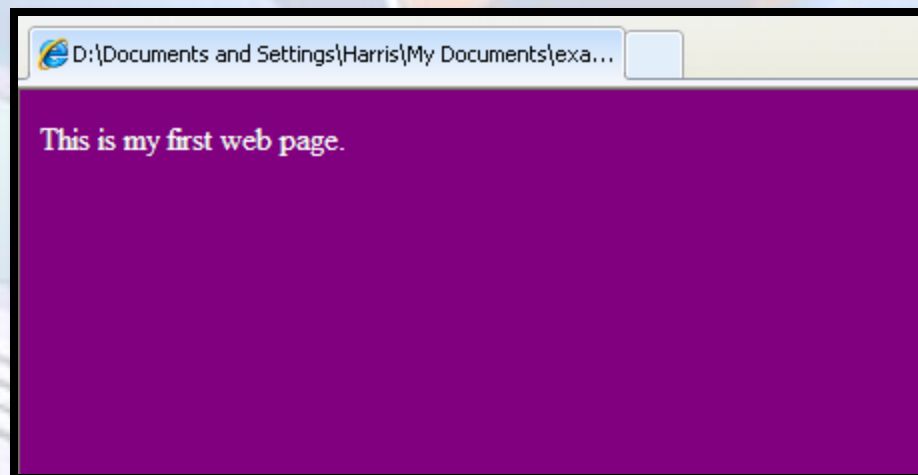


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<BODY> Tag – Example 4

- With text color

```
<body bgcolor="purple" text="white">  
This is my first web page.  
</body>
```



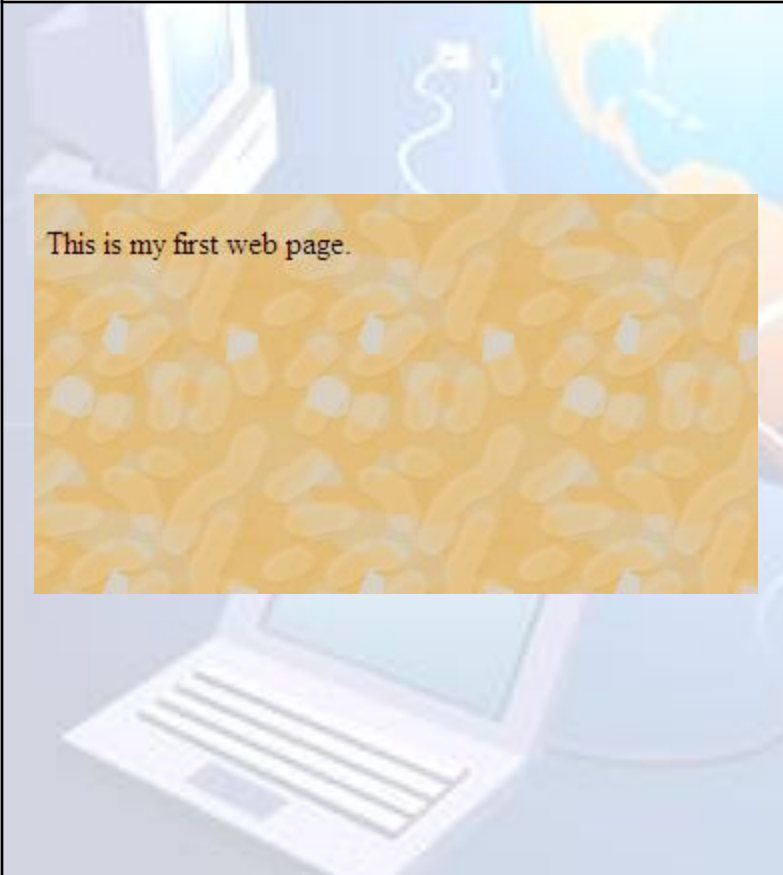


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Background - Color

Good	Bad
<p data-bbox="241 539 909 872">This is my first web page.</p>	<p data-bbox="981 539 1705 872">This is my first web page.</p>
<p data-bbox="241 929 909 1279">This is my first web page.</p>	<p data-bbox="981 929 1705 1279">This is my first web page.</p>

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Background - Picture

Good	Bad
 <p>This is my first web page.</p>	 <p>This is my first web page.</p>  <p>This is my first web page.</p>

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<DIV> Tag

- The <div> tag defines a division or a section in an HTML document.
- The <div> tag is used to group block-elements to format them with styles.
- The <div> tag is very often used together with CSS, to layout a web page.

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<DIV> Tag

Attribute	Value	Description
Align	Left, center, right, justify	The align attribute specifies the horizontal alignment of the content inside a <div> element.
Style=background-color	Color name	Specifies the background color
Style=height	Number	To define height
Style=width	Number	To define weight

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<DIV> Tag – Example

```
<div style="background-color:orange;">Header</div>
```

```
<div style="background-color:red;height:200px;">Content</div>
```

```
<div style="background-color:orange;">Footer</div>
```



Header

Content

Footer