

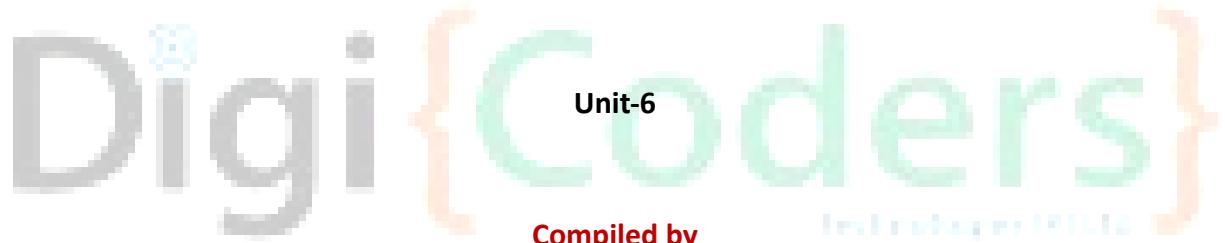


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LECTURE NOTES

ON

INTERNET AND WEB TECHNOLOGY



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## **UNIT-6**

### **Development of Portals Using HTML**

#### **Design a webpage**

The web design process in 7 simple steps

In order to design, build, and launch your website, it's important to follow these steps:

1. **Goal identification:** In this initial stage, the designer needs to identify the end goal of the website design, usually in close collaboration with the client or other stakeholders.

#### **2. Scope definition**

One of the most common and difficult problems plaguing web design projects is scope creep. The client sets out with one goal in mind, but this gradually expands, evolves, or changes altogether during the design.

#### **1. Sitemap and wireframe creation**

The sitemap provides the foundation for any well-designed website. It helps give webdesigners a clear idea of the website's information architecture and explains the relationships between the various pages and content elements.

#### **2. Content creation**

Once your website's framework is in place, you can start with the most important aspect of the site: the written content.

##### **Purpose 1. Content drives engagement and action**

First, content engages readers and drives them to take the actions necessary to fulfill a site's goals. This is affected by both the content itself (the writing), and how it's presented (the typography and structural elements).

##### **Purpose 2: SEO**

Content also boosts a site's visibility for search engines. The practice of creating and improving content to rank well in search is known as search engine optimization, or SEO.

Getting your keywords and key-phrases right is essential for the success of any website. I always use Google Keyword Planner.

##### **1. Visual elements**

Finally, it's time to create the visual style for the site. This part of the design process will often be shaped by existing branding elements, colour choices, and logos, as stipulated by the client. But it's also the stage of the web design process where a good web designer can really shine.

##### **2. Testing**

Thoroughly test each page to make sure all links are working and that the website loads properly on all devices and browsers. Errors may be the result of small coding mistakes, and while it is often a pain to find and fix them, it's better to do it now than present a broken site to the public.

##### **3. Launch**

Now it's time for everyone's favorite part of the website design process: When everything has been thoroughly tested, and you're happy with the site, it's time to launch.

## **HTML**

- Hyper Text Markup Language (HTML) is the main markup language for creating webpages and other information that can be displayed in a web browser.
- A markup language is a set of markup tags.
- The tags describe document content

### **Features of HTML.**

- HTML is the predominant markup language for web pages. HTML elements form the building blocks of all websites. It is easy to learn and easy to use.
- It is platform independent
- HTML allows images and objects to be embedded and can be used to create interactive forms.
- It provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items.
- Images, video and audio can be added to a web page.
- Hypertext can be added to text.
- It is a markup language.
- It can embed scripts in languages such as JavaScript which affect the behavior of HTML WebPages.
- Web browsers can also refer to Cascading Style Sheets (CSS) to define the appearance and layout of text and other material.

### **Why learn HTML?**

- It is a simple markup language. Its implementation is easy.
- It is used to create a website.
- Helps in developing fundamentals about web programming.
- Boost professional career.

### **Advantages:**

- HTML is used to build websites.
- It is supported by all browsers.
- HTML is Simple to Edit
- HTML is Lightweight
- It can be integrated with other languages like CSS, JavaScript etc.
- Display Changes Instantly
- HTML is User-Friendly

### **Disadvantages:**

- HTML can only create static web pages. For dynamic web pages, other languages have to be used.
- A large amount of code has to be written to create a simple web page.
- Security feature is not good.
  - If we need to write long code for making a webpage then it produces some complexity.

## Basic Html Tags

### Paragraph Tags

**Tag:** `<p> </p>` (Has a closing tag) `</>` means closed.

**What it Does:** Puts 2 breaks between lines of text.

**Attributes:**

Align=left, right, center

**Code Example:**

```
<p align="left">This is a paragraph tag</p>
<p align="left">This is a paragraph tag</p>
```

**What it looks like:**

This is a paragraph tag.

This is a paragraph tag.

### Break Tags

**Tag:** `<br>` (Has no closing tag)

**What it Does:** Puts a one line break between text.

**Code Example:**

This is a break tag. `<br>`

This is another break tag.

**What it looks like:**

This is a break tag.

This is another break tag.

### Bold Tags

**Tag:** `<b></b>` (Has closing tag) `</>` means closed.

**What it Does:** Creates bold text

**Code Example:** `<b>this is bold.</b>`

`</b>`**What it looks like:**

**this is bold.**

## Italic Tags

Tag: `<i></i>` (Has closing tag) `</>` means closed.

**What it Does:** Creates Italic text.

**Code Example:** `<i>` This text is italic. `</i>`

**What it looks like:**

*This text is italic.*

## Unordered List Tags

Tag: `<ul> </ul>` (Has closing tag) `</>` means closed.

**What it Does:** The UL tag lists items using bullets. Also indents your list tags.

**Code Example:**

`<ul>`This is a ul tag`</ul>`

**What it looks like:**

This is a ul tag.

## List Tags

Tag: `<li> </li>` (Has closing tag) `</>` means closed.

**What it Does:** Creates a bulleted list.

**Code Example:**

`<li>Apple </li>`

`<li>Orange</li>`

`<li>Peach</li>`

**What it looks**

like:

Apple

Orange

Peach

## Hyperlink Tag

Tag: `<a href="URL"></a>` Has closing tag) `</>` means closed.

**What it does:** Creates a hyperlink to another page.

**Attributes:**

Target="new" This opens up a new window.

**Code Example:**

`<a href="doc.html">document </a>`

**What it looks like:**

[Document](#)

To create a “hotlink” email reference:

## Table Tags

`<a href="mailto:janiceg@projecta.com">janiceg@projecta.com</a>`

Tag: `<table></table>` Creates a table

Tag: `<tr></tr>` Sets off each row in a table

Tag: `<td></td>` Sets off Each cell in a table>

**Attributes:**

**How these work and look:** All these tags must be closed. `</>`

```
<table border=1 cellpadding=2 cellspacing=2>
  <tr>
    <td>cell 1</td>
    <td>cell 2</td>
  </tr>
</table>
```

**How it looks:**

Cell 1	Cell 2
--------	--------

## Image Tags

Tag: `` there is no closing tag

### Attributes:

alt="description"  
Align=right  
or  
leftBorder=0

**What it does:** Inserts an image into the page. Always have an alt tag in your images. Alt tags are part of **priority one ADA compliance**. The site will not be compliant without this

tag. **Code Example:** This is an image ``

## Email Tags

`<a href="mailto:gordon@sno-cat.com" class="links" >Gordon@sno-cat.com </a>`

## Image Tags with locations

To insert an image into text area

`` To place this in a left, center or right position you would:

`<center></center>` Note: Sometimes the code is particular about the image name being all on one line. If your image doesn't display properly on the page, then check for the file name being split on two lines.

## CSS

- CSS stands for Cascading Style Sheets.
- CSS describes how HTML elements are to be displayed on screen, paper, or in other media. CSS saves a lot of work. It can control the layout of multiple web pages all at once.
- External style sheets are stored in CSS files.
- CSS is used to define styles for your web pages, including the design, layout and variations in display for different devices and screen sizes.

### CSS Example

```
<!DOCTYPE html>
<html>
  <head>
    <title>This is document title</title>
    <style>
      h1 {
        color: #36CFFF;
      }
    </style>
  </head>
  <body>
    <h1>Hello World!</h1>
  </body>
</html>
```

### Separation of Style and Structure

The basic idea behind CSS is to separate the structure of a document from the presentation of the document. HTML is meant for structure. It was never intended for anything else. All those attributes you add to style your pages were added later as the viewing public demanded it. All those additions though make HTML clumsy and work against its main purpose of structuring a document. HTML is there to let a browser know that this block of text is a paragraph and that block of text is a heading for this paragraph.

Without all the extra HTML for styling the structure of your document is much more readable making it easier to update without breaking the document. All of your CSS can be moved to a separate file making it easier to update your styles as well.

## Types of CSS

Style sheets come in three types:

1. inline = style attributes are used inline with the HTML tags. For example:

```
<p style="color: red">When in the course...</p>
```

This would style the paragraph red, but just this one paragraph on the page. Using this type of style sheet, you would have to individually style other p tags on the page if you also want those to be red. This is an inefficient style sheet concept.

2. embedded (internal) = style information is in a <style> tag which is nested in the <head> tag of a single Web page. For example:

```
<style  
type="text/css">  
p  
{color: red;}  
</style>
```

This would style all the paragraphs on this one Web page red. This is more powerful, but if you want to style all the p tags on your other Web pages using this model, then you'd have to add this code to them all. If your site contains hundreds of pages, this could take a while.

3. linked (external) = the style is in one .css file that is linked to multiple Web pages. The link tag on the page is connected to the external file. For example:

```
<link rel="stylesheet" type="text/css" href="styles.css" />
```

In a case like this, all the Web pages in an entire site -- and there could be dozens, hundreds, or thousands! -- could be linked to this one external style sheet file. If that file contained a selector that specified the p tag was red, all the p tags throughout all the pages of the site would be styled that color.

## CSS Rules

A *CSS rule* is a grouping of one or more CSS properties which are to be applied to one or more target HTML elements.

A CSS rule consists of a CSS selector and a set of CSS properties. The CSS selector determines what HTML elements to target with the CSS rule. The CSS properties specifies what style of the targeted HTML elements.

Here is a CSS rule example:

```
div {  
    border     : 1px solid black;  
    font-size  : 18px;  
}
```

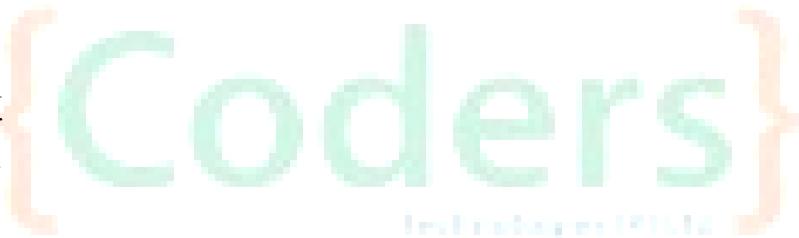
This example creates a CSS rule that targets all `div` elements, and sets the CSS properties `border` and `font-size` for the targeted elements.

The CSS selector part of a CSS rule is the part before the first `{`. In the example above it is the `div` part of the CSS rule. The CSS properties are listed inside the `{ ... }` block.

CSS rules have to be specified inside either a `<style>` element or inside an external CSS file.

## Advantages of using CSS

- Easier to maintain and update.
- Greater consistency in design.
- More formatting options.
- Lightweight code.
- Faster download times.
- Search engine optimization benefits.
- Ease of presenting different styles to different viewers. Greater accessibility.





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