Digicoders technologies (P) Ltd.

LECTURE NOTES

ON

INTERNET AND WEB TECHNOLOGY

Unit-6

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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, orchanges 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 aspectof 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 fulfilla 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 creation andimproving 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 anywebsite. 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 goodweb 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 codingmistakes, and while it is often a pain to find and fix them, it's better to do it now thanpresent 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 tolaunch.

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.

- HTMLis 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, otherlanguages 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 producessome complexity.

Basic Html Tags

Paragraph Tags

Tag: (Has a closing tag) </ > *means closed.*
What it Does: Puts 2 breaks between lines of text.

Attributes:
Align=left, right, center

Code Example:
This is a paragraph tag
This is a paragraph tag

What it looks like:
This is a paragraph tag.

This is a paragraph tag.

Break Tags

Tag:
 (Has no closing tag)

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

Code Example:
This is a break tag.
This is another break
tag.

What it looks like:
This is a break tag.
This is another break tag.

Bold Tags

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

What it Does: Creates bold text

Code Example: ****this is bold.

What it looks like:

this is bold.

Italic Tags

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

What it Does: Creates Italic text.

Code Example: **** This text is italic. ****

What it looks like:
This text is italic.

Unordered List Tags

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

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

Code Example:
**
This is a ul tag
**

What it looks like:

- This is a ul tag.

List Tags

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

What it Does: Creates a bulleted list.

Code Example:
Apple
Orange
Peach

What it looks like:

- Apple
- Orange
- Peach

Hyperlink Tag

**Tag: ** 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:
****document ****

What it looks like:

Document

To create a “hotlink” email reference:

Table Tags

janiceg@projecta.com

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:

align=left,
right,
centerborder
=x
cellpadding
=x
cellspacing=
x width=
height=

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: <img src=”imagename.gif” alt=”description”> 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 **priorityone ADA compliance**. The site will not be compliant without this tag. **Code Example:** This is an image <img src=”images/arrow.gif” alt=”arrow”>. **What it looks like:** This is an image  **.**

1. Always use alt tags (alternative text) in images
2. Close your tags </>

Email Tags

**Gordon@sno-cat.com **

Image Tags with locations

To insert an image into text area

<img src=”images/imagemanager/filename.gif(jpg)”alt=”Title of

Image”>To place this in a left, center or right position you would:

** <img src=”images/imagemanager/filename.gif(jpg)”alt=”Title of Image”> **

Note: Sometimes the code is particular about the image name being all on one line. If yourimage 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 indisplay 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 attributesyou add to style your pages were added later as the viewing public demanded it. All those additionsthough make HTML clumsy and work against it's 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 with out breaking the document. All of your CSS can be moved to aseparate 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:

   When in the course...

   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 thoseto 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 asingle 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 youwant 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 onthe 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 selectorthat 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 whatto 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 divelements, and the set the CSS properties borderand font-sizefor the targeted elements.

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

CSS rules have to be specified inside either a styleelement 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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