

Assignment – 3

Date: 09-11-2023

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1: What is URL?

URL (Uniform Resource Locator) is the web address of an internet resource, like a webpage. You can see the URL of the webpage you're on in the address bar at the top of your browser's window. URLs are important. Because they help users access the webpage they want to view. Plus, if you're doing SEO, they can help you set up your website for SEO success by providing information to search engines about the content and purpose of a webpage.

2: Difference between HTTP and HTTPS:

HTTP: HTTP stands for HyperText Transfer Protocol. HyperText is the type of text which is specially coded with the help of some standard coding language called HyperText Markup Language (HTML). HTTP provides a standard between a web browser and a web server to establish communication. It is a set of rules for transferring data from one computer to another. Data such as text, images, and other multimedia files are shared on the World Wide Web. Whenever a web user opens their web browser, the user indirectly uses HTTP. It is an application protocol that is used for distributed, collaborative, hypermedia information systems.

HTTPS: HTTPS stands for Hyper Text Transfer Protocol Secure. HTTP Secure (HTTPS), could be a combination of the Hypertext Transfer Protocol with the SSL/TLS convention to supply encrypted communication and secure distinguishing proof of an arranged web server. HTTPS is more secure than HTTP because HTTPS is certified by the SSL(Secure Socket Layer). Whatever website you are visiting on the internet, if its URL is HTTP, then that website is not secure.

3: What is DOM in HTML?

The Document Object Model (DOM) is a programming interface for HTML(HyperText Markup Language) and XML(Extensible markup language) documents. It defines the logical structure of documents and the way a document is accessed and manipulated. DOM is a way to represent the webpage in a structured hierarchical way so that it will become easier for programmers and users to glide through the document. With DOM, we can easily access and manipulate tags, IDs, classes, Attributes, or Elements of HTML using commands or methods provided by the Document object. Using DOM, the JavaScript gets access to HTML as well as CSS of the web page and can also add behavior to the HTML elements. So basically Document Object Model is an API that represents and interacts with HTML or XML documents.

4: What are Metatags?

HTML <meta> tag is used to represent the metadata about the HTML document. It specifies page description, keywords, copyright, language, author of the documents, etc. The metadata does not display on the webpage, but it is used by search engines, browsers and other web services which scan the site or webpage to know about the webpage. With the help of meta tag, you can experiment and preview that how your webpage will render on the browser. The <meta> tag is placed within the <head> tag, and it can be used more than one times in a document.

5: What is W3C?

The World Wide Web Consortium (W3C) is an international organization that develops standards for the World Wide Web (WWW or Web). It was founded in 1994 by Tim Berners-Lee, the inventor of the Web, with the goal of ensuring that the Web remains a free and open platform for communication and innovation. The W3C works to develop and promote standards that ensure the long-term growth of the Web. It is made up of member organizations, including governments, companies, and research institutions, that contribute their expertise and resources to the development of Web standards.

Some of the key areas in which the W3C works to develop standards include –

HTML (Hypertext Markup Language) – The W3C works to develop and maintain standards for HTML, the language used to structure and format web pages.

CSS (Cascading Style Sheets) – The W3C works to develop and maintain standards for CSS, the language used to style web pages.

JavaScript – The W3C works to develop and maintain standards for JavaScript, a programming language used to create interactive web pages.

Web accessibility – The W3C works to develop and promote standards that ensure that the Web is accessible to users with disabilities.

Web security – The W3C works to develop and promote standards that ensure the security of the Web and protect users' privacy.

Overall, the W3C plays a crucial role in the development and evolution of the Web, and works to ensure that it remains a free and open platform for communication and innovation.

6: Different DOCTYPE of different versions of HTML:

- **The HTML5 doctype:**
<!DOCTYPE html>
- **The HTML 4.01 strict doctype:**
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN"
"http://www.w3.org/TR/html4/strict.dtd">
- **The HTML 4.01 transitional doctype:**
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
"http://www.w3.org/TR/html4/loose.dtd">

- **The XML 1.0 strict and transitional doctypes:**

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
```

```
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
```

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
```

```
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
```

- **The HTML 4.01 and XML 1.0 frameset doctypes:**

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Frameset//EN"
```

```
"http://www.w3.org/TR/html4/frameset.dtd">
```

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Frameset//EN"
```

```
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-frameset.dtd">
```