IT116 – F21 – SDT CLASS ASSIGNMENT

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**Web Technology Fundamentals 1**

***Introduction To the Web: -***

Web Technology Fundamentals - James Williamson

1) What are clients?

**Answer: -** A client is a piece of computer hardware or software that accesses a service made available by a server as part of the client–server model of computer networks.

2) When we type in a URL, the request does not typically go first to the webserver.  Where does it go?

**Answer: -** You enter a URL into a web browser. The browser looks up the IP address for the domain name via DNS. The browser sends a HTTP request to the server. The server sends back a HTTP response

3) [True or False] In response to a web request, all required files are sent at the same time.

**Answer: -** True.

 4) [Critical Thinking] Why is it important to understand DNS when helping a client change hosting company?

**Answer:** - DNS is important when it comes to hosting your domains on the Internet, I mean it is coined the Domain Name Server after all. ... If you change those settings to another company, visitors will reach that company when they use your domain name.

5) Which layer has protocols like HTTP, FTP, and SMTP?

**Answer:** - Application Layer Protocols.

6) What does the author mean when he says HTTP is a **stateless** protocol?

**Answer: -** This means a HTTP server needs not keep track of any state information. ... So, at any time, the client can send any valid command.

7) [Critical Thinking] What is the purpose of a subdomain?

**Answer: -** A subdomain is, as the name would suggest, an additional section of your main domain name. You create subdomains to help organize and navigate to different sections of your main website. Within your main domain, you can have as many subdomains as necessary to get to all the different pages of your website.

8) Which rendering engine is based on Web Kit and used under the hood to develop Chrome?

**Answer: -** Under the hood, you will find Blink — Google's rendering engine based on Web Kit — as well as V8, the JavaScript engine in Chrome.

9) [Critical Thinking] Why are web standards important to web developers?

**Answer:**- Using standards will most likely increase your site's search engine ranking, and you can even easily convert your web pages into other formats or “mash up” the content into other web and desktop applications. Most of all, your site will be easier to maintain, update, and redesign.

10) [Critical Thinking] What is the LAMP stack?

**Answer: -** What is the LAMP Stack? The widely popular LAMP stack is a set of open-source software used for web application development. For a web application to work smoothly, it must include an operating system, a web server, a database, and a programming language.

11) [Critical Thinking] Why is it important to know what stack is being used by your host?

**Answer: -**The idea of technology stacks is important because the commonly used ones are tried and true; there is a good deal of expertise and documentation available on how to set them up properly to ensure security and high performance. For some technology stacks, the pieces are specifically designed to work together.

***Front End Technology***

12) [True or False] According to our author, front end design is commonly associated with the server.

**Answer: -** False.

13) What are the three languages the author associates with front end design?

**Answer: -** HTML, CSS, and JavaScript are at the heart of Front-End development. The three languages are relatively easy to learn and offer plenty of flexibility and creativity. If you want to become a Front-End dev, you need to learn these three languages and JavaScript frameworks.

14) [Critical Thinking] Why was HTML5 created?

**Answer: -** HTML5 was conceived after observing that there were a lot of mixed features in the HTML and XHTML specifications, and it was an attempt to define a single markup language which could be written in either HTML or XHTML syntax.

15) [Critical Thinking] What does the HEAD of an HTML document contain?

**Answer: -** The <head> tag contains metadata (document title, character set, styles, links, scripts), specific information about the web page that is not displayed to the user. Metadata provides browsers and search engines with technical information about the web page.

16) [Critical Thinking] What does the term cascade mean?

**Answer: -** The “cascading” in CSS refers to the fact that styling rules “cascade” down from several sources. This means that CSS has an inherent hierarchy and styles of a higher precedence will overwrite rules of a lower precedence.

17) What’s the benefit of using a separate file to store your CSS?

**Answer: -** The advantages of using a separate CSS file rather than embedding the CSS code inside the HTML file include: The layout of a web page is better controlled. Style (CSS) kept separate from structure (HTML), means smaller file size. Reduced file size means reduced bandwidth, which means faster loading time.

18) In CSS, what separates a property from a value?

**Answer: -** CSS properties are the styles used on specified selectors. They are written

before values in the CSS ruleset and are separated from property values by a colon.

19) [Critical Thinking] What is the purpose of JavaScript?

**Answer: -** JavaScript is a text-based programming language used both on the client-side and server-side that allows you to make web pages interactive. Where HTML and CSS are languages that give structure and style to web pages, JavaScript gives web pages interactive elements that engage a user

20) Which 2 types of graphics support transparencies?

**Answer: -** Transparency. The **GIF and PNG formats** also both support transparency. If you need any level of transparency in your image, you must use either a GIF or a PNG.

21) Which type of image scales without any loss in quality?

**Answer: -** TIFF is a high-quality format great for print and versatile enough to store multiple images in one file. When resizing images, keep in mind that GIFs and JPEG formats are “lossy” and will lose some quality. Whereas PNGs, BMP, TIFF, and SVG files will not lose quality.