"Web Development Foundations" (WDF)   
*by James Williamson*

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## Introduction To The Web

Understanding How The Web Works (2:37)

1. **What are clients?**

ANSWER: Clients are the devices that request and render web content, such as web browsers, mobile applications, screen readers, and various content aggregators.

Working with clients and servers (2:38)

1. **When we type in a URL, the request does not typically go first to the web server. Where does it go?**

ANSWER:

The request usually goes to a Domain Name Server (DNS). The DNS then translates the URL to an IP address. The browser then uses this IP address to locate the host server and send a request for the content.

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

ANSWER:

For static a site, this is true. All required files are sent at the same time. However, if the site is dynamic and requires further processing before they can present content, then the page must first be processed by a web application before the content is served to a browser, and therefore false.

The DNS and why it matters (4:41)

1. **[Critical Thinking] Why is it important to understand DNS when helping a client change hosting companies?**

ANSWER:

* If the site is not registered properly with a DNS then no one will be able to find it
* When registering multiple domain names for one site, the domain names need to be registered to the correct IP.
* It is very import that ownership of the site is properly registered to the proper owner of the site.
* It is also important to understand that DNS caching takes about 24 hours, so if you migrate a site from one host to another any servers that cached the old location won’t point to the new site for about a day or so. Because of this, migrating sites over the weekend makes the most sense since it will leave fewer users wondering where the site disappeared to.

Exploring HTTP (4:13)

1. **What does the author mean when he says HTTP is a stateless protocol?**

ANSWER:

It means that once a request has been sent and received, it is discarded and forgotten by the browser as well as the web server.

Anatomy of a URL (7:13)

1. **[Critical Thinking] What is the purpose of a subdomain?**

ANSWER:

The subdomain is a folder that your web content is located in on your server. Subdomains allow servers to identify unique sites or unique areas of content.

How browsers work (4:32)

1. **Which rendering engine is based on WebKit and used under the hood to develop Chrome?**

ANSWER:

Blink is the rendering engine that is based on WebKit and is used to develop Google’s Chrome browser.

Web standards and the W3C (3:46)

1. **[Critical Thinking] Why are web standards important to web developers?**

ANSWER:

Without web standards web developers would have to develop multiple versions of pages for different browsers.

Web server basics (3:02)

1. **[Critical Thinking] What is the LAMP stack?**

ANSWER:

The LAMP stack is a stack of the Linux, Apache, MySQL, and PHP softwares all working together to serve and process web pages.

1. **[Critical Thinking] Why is it important to know what stack is being used by your host?**

ANSWER:

It is important to know which stack is being used by your host so you know you’re using the proper operating system, web server, database server, and programming language.

## Front End Technology

Front end design (3:11)

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

ANSWER:

False. Front-end is commonly associated with the client side, whereas back-end is associated with the server side.

1. **What are the three languages the author associates with front end design?**

ANSWER:

The three languages associated with front-end design are Hyper-Text Markup Language (HTML), Cascading Style Sheets (CSS), and JavaScript (JS).

HTML the language of the web (3:54)

1. **[Critical Thinking] Why was HTML5 created?**

ANSWER:

Developers and designers who were unhappy with the XHTML 2.0 banned together to continue the development of HTML, retaining backwards compatibility and adding new structural tags and support for APIs allowing elements to be edited, dragged and dropped, and facilitate communication from within the HTML document without needing outside scripting. Eventually, their work was recognized by the WC3, adopting the work under the name HTML5.

Structuring HTML (4:22)

1. **[Critical Thinking] What does the <head> of an HTML document contain?**

ANSWER:

The head of an HTML file contains all of the non-visual elements that help make the page work such as meta tags, and links to external resources such as CSS and JavaScript files

Controlling presentation through CSS (4:22)

1. **[Critical Thinking] What does the term cascade mean?**

ANSWER:

Cascade means how the styles are applied to a page. They may be embedded in the head, in a linked CSS file, or applied as an inline attribute of page elements. Styles can overwrite one another depending on where they are located.

1. **What’s the benefit of using a separate file to store your CSS?**

ANSWER:

The main benefit to using a separate file for storing CSS is to streamline editing of web pages. If you want to alter several similarly styled pages you’ll only have to do your edits in one place instead of each individual page.

1. **In CSS, what separates a property from a value?**

ANSWER:

Colons are used to separate properties from values.

Client side scripting with JavaScript (4:40)

1. **[Critical Thinking] What is the purpose of JavaScript?**

ANSWER:

JavaScript allows you to add interactivity and application functionality to web pages.

Common image types (5:31)

1. **Which 2 types of graphics support transparencies?**

ANSWER:

PNGs and GIFs support transparencies.

1. **Which type of image scales without any loss in quality?**

ANSWER:

Scalable Vector Graphics, or SVGs, are images that scale without loss of quality.