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## Glossary: Introduction to Web Development with HTML, CSS, JavaScript

Welcome! This alphabetized glossary contains many of the terms in this course. This comprehensive glossary also includes additional industry-recognized terms not used in course videos. These terms are essential for you to recognize when working in the industry, participating in user groups, and in other professional certificate programs.

Estimated reading time: 10 minutes

Term	Definition
AJAX	"Asynchronous JavaScript and XML" that encompasses more than asynchronous server calls through JavaScript and XML. It is not programing language or technology but rather a programming concept. Ajax represents a series of techniques that provide richer, interactive web applications through HTML, JavaScript, Cascading style sheets, and modifying the web page through the Document
	Object Model. The name is misleading though because nowadays, JSON is commonly used instead of XML.
AngularJS	An open-source JavaScript framework for dynamic web applications.
Anonymous Functions	A type of function that has no name or we can say which is without any name. It is declared without any identifier and is often used as a parameter of another function. It is a common way to execute a function immediately after its declaration.
Application Programming Interface (API)	Code that allows two software programs to communicate with each other.
Array	A data structure that aids the programmer in the storage and retrieval of data by indexed keys. Arrays use a zero-based indexing scheme, meaning that the first element of an array has an index of zero. Arrays grow or shrink dynamically by adding or removing elements.
<b>Build Automation Servers</b>	Execute build-automation utilities on a scheduled or triggered basis.
<b>Build Automation Utilities</b>	Generate executables by compiling and linking code.
<b>Build Automation</b>	Allows you to download dependencies, compile code, package binary code, run tests, deploy to production.
Classes	Classes act as a blueprint or template for building objects with similar characteristics and behaviours. A class encapsulates data (in the form of properties) and functions (in the form of methods) that work on that data.
Client-Side Script	A program that accompanies an HTML doc or embedded in HTML. Scripts run during load of a document or when an action is performed. They can be used to validate forms, process input, or dynamically create document elements. Embed a script in HTML, with the <script> tag in either of the following ways: <script> // JS code </script> <script> mame"></script> Use <noscript> tag for browsers with JavaScript disabled or ones that don't support JavaScript.</noscript>
Component Framework	Component frameworks provide pre-styled components and templates which are easy to add to any website.
Continuous Integration/Continuous Deployment (CI/CD)	A method for releasing code and integrating it into code that has already been developed in order to prevent the application from breaking throughout the app's lifecycle.
CSS	"Cascading Style Sheets" is a style sheet language that describes how HTML elements are displayed. It is the design that is layered over the top of an HTML web page.
Django	A framework for Python web development.
<b>Document Objects</b>	Document representing the main web page that gives access to all HTML elements on the page. When page is loaded HTML doc becomes a document. It is referred to with "document".
DOM	"Document Object Model" is a programming interface (API) between HTML and JavaScript. It allows for dynamically accessing and updating content, structure, and style. JavaScript uses the DOM to access and modify web page elements in the browser.
<b>Dynamic Content</b>	Data that is created each time a request is sent to a server.
Element Nodes	All HTML tags.
Element Objects	The most general base class that all element objects in a Document inherit. It only has methods and properties common to all elements. Everything in a HTML page is an element. And one element can have other elements nested within itself.
Endpoint	The point at which an API connects with the software program.
<b>Event Binding</b>	Refers to telling the browser that a function should be called whenever some 'event' occurs.
Event Handlers	A function that declares what to do when an action is performed such as the click of a button. Example: <pre></pre>
Event	An event is something either a browser or a user does that the JavaScript can react to such as a button click or when a user submits input on a form.
Extend	This keyword is used in class declarations or class expressions to create a class that is a child of another class.
Fixed Layout	A fixed layout is a layout where you specify the height and width of elements, and those values remain the same regardless of which operating system or browser you use to access the website.
Fluid Layout	A fluid layout is a layout in which the height and width of elements is flexible and can expand or contract based on the browser window, the operating system, and other user preferences.
Frameworks	Provide a standard way to build an application. Frameworks dictate architecture and program flow.
Functions	Functions are modules of code that execute a particular task. They may take-in data, called arguments or parameters, and sometimes return data as well, called the return value. Functions are commonly defined with this syntax:  function functionName() {     // function code;     // optional return statement;     }
	"Integrated Development Environment" helps create and manage code.

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Term	Definition
ПЕ	"Immediately Invoked Function Expression" runs immediately after it is defined. After the function executes it cannot be called again elsewhere in the program. It is a type of self-executing function.
Inversion of Control	A predefined workflow where the developer is not in full control of how the application operates.
JavaScript Framework	An application framework written in JavaScript to create responsive sites.
LESS	"Learner Style Sheets" add more style and functions to CSS.
less.js	A JavaScript tool that converts LESS styles to CSS.
Libraries	They are reusable collections of code.
Nodes	The basis of all elements in the Document Object Model (DOM) structure.
Objects	Objects are instances created from a class. They are real-world entities that represent the characteristics defined by the class. Objects have a special set of properties that store data and methods that specify behaviours. These methods and properties can be accessed and changed to carry out specific tasks and communicate with other programs.
Opinionated	Frameworks that have a lot of control are sometimes considered "opinionated".
Package Managers	Coordinate with file archivers to extract packages. Verify check sums and digital certificates. Locate, download, and install updates of existing software from a repository as well as manage dependencies. Common package managers include the following: Debian Package Management System (DPMS), Red Hat Package Manager for Linux, Chocolatery for Windows, Homebrew and MacPorts for MacOS.
Packages	Archive files that include app files, instructions for installation, and metadata.
Prototypes	A function prototype lets you easily define and add properties or methods to an object. Prototypes exist for all objects that can be created with the keyword "new". All object constructors create objects that inherit properties and methods that are defined by the prototype. At instantiation objects inherit the current state of the prototype. Note however, that scripts can override prototype properties and functions. Following is an example of using a prototype to add a method to the Car class:    function Car(make, model, year) {   this.make = make;     this.model = model;     this.year = year;     }   Car.prototype.getName = function() {   return this.make + ' ' + this.model + ' ' + this.year;     }
React.js	A JavaScript framework developed by Facebook that helps build and drop elements onto a page.
Responsive Design	Design technique that automatically resizes a display to adapt to a specific screen size.
Route	Allows front-end client to plug into correct socket on the backend. They are the paths that network traffic takes from a virtual machine (VM) instance to other destinations.
SASS	"Syntactically Awesome Stylesheets" are an extension of CSS.
Script	Offers developers means to modify and extend HTML documents in highly interactive ways. Scripts can be used to validate forms or to process input as it is typed. Scripts can be triggered by events that occur on a web page, such as the clicking of a button. Scripts can be used to dynamically create document elements on an HTML page.
Self-Executing Functions	Often used to initialize data or declare DOM elements. These functions can be anonymous.
Static Content	A display of data that has been previously stored on a server.
Text Nodes	The nodes that contain actual text that go between an element start tag and end tag.
this	Keyword "this" refers to current instance of the object. The value of "this" can vary depending on how the object is called.
Utility Framework	The utility framework provides utility classes that are scoped to individual CSS properties, which helps in building custom designs in HTML files.
Version Control	Allows you to revert to earlier versions of code, resolves conflicts between the same files, and split and merge different code branches.
Vue.js	A community-based JavaScript framework focused on UI. Includes UI components such as buttons and other visual elements, and is both a library and a frame.
Web Storage APIs	APIs that allow data storage in a browser.
XHTML	An "eXtensible Hypertext Markup Language" similar to HTML but with stricter formatting rules.
XML	An "eXtensible Markup Language" Designed to store and transport data allowing users to define their own markup languages, primarily to display documents on the web.



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