

front-end development



Summary of front-end development.

Recall

- What is frontend development?
- What technologies are used?

Recall

Overview

Tools Used

HTML

CSS

Javascript

Goals

Accessibility

Performance

Overview

Front-end web development is the development of the <u>graphical user interface</u> of a website, through the use of HTML, CSS, and <u>Javascript</u>, so that users can view and interact with that website.

Tools Used

HTML

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<u>HyperText Markup Language</u> (HTML) is the backbone of any website development process, without which a web page does not exist. Hypertext means that text has links, termed hyperlinks, embedded in it. When a user clicks on a word or a phrase that has a hyperlink, it will bring another web-page. A markup language indicates text can be turned into images, tables, links, and other representations. It is the HTML code that provides an overall framework of how the site will look.

CSS

<u>Cascading Style Sheets</u> (CSS) controls the presentation aspect of the site and allows your site to have its own unique look. It does this by maintaining style sheets that sit on top of other style rules and are triggered based on other inputs, such as device screen size and resolution. The CSS can be added externally, internally, or embedded in the HTML tags.

Javascript

<u>JavaScript</u> is an event-based <u>imperative programming</u> language (as opposed to HTML's <u>declarative language</u> model) that is used to transform a static HTML page into a dynamic interface. JavaScript code can use the <u>Document Object Model</u> (DOM), provided by the HTML standard, to manipulate a web page in response to events, like user input.

Using a technique called <u>AJAX</u>, JavaScript code can also actively retrieve content from the web (independent of the original HTML page retrieval), and also react to server-side events as well, adding a truly dynamic nature to the web page experience.

Goals

Accessibility

With continuing development for mobile devices, such as smart phones and tablets, designers need to ensure that their site comes up correctly in browsers on all devices. This can be done by creating a <u>responsive web design</u> using stylesheets in CSS.

Performance

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Performance goals are chiefly concerned with render time, manipulating the HTML, CSS, and JavaScript to ensure that the site opens up quickly.

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