

Short Introduction to Web Programming

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Outline

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- HTML
- CSS
- JavaScript

Introduction

We begin by talking about what is web programming. Web programming in human-readable English is to develop online applications that can realise functionalities devised by developers.

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For examples, the social network platforms we use everyday like Facebook or Twitter are based on an online environment and are hence products of web programming; to a smaller scale small websites hosted by individuals are also products of web programming dependent on Internet connections.

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The functionalities have been captured by HTML, CSS and JavaScript respectively. Though large projects usually are constructed by more complicated and more powerful programming tools other than JavaScript, it is still an efficient and popular way to implement web programming.

HTML

HyperText Markup Language, commonly referred to as HTML, is the standard markup language used to create web pages. A markup language is something to convert scripts to texts in different displays, usually for decoration use. Microsoft Word is one of the most famous markup languages to your surprise.

HTML provides web designers with a skeleton without flesh. Web pages designed with HTML only have few colors, weak control of elements, in ways of size and positioning, which is usually a design of no beauty. To improve the situation we introduce CSS.

CSS

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language. Put in plain English, CSS is a document that can control the appearance of web elements by describing how the element should look like. We can view CSS as a supplementary document to HTML, simply like a cover letter to your CV: it describes further details of events written briefly in CV.

JavaScript

JavaScript is a high level interpreted programming language. Alongside HTML and CSS, it is one of the three essential technologies of World Wide Web content production; the majority of websites employ it and it is supported by all modern web browsers without plug-ins.

HTML and CSS makes perfect static web pages, and the importance of JavaScript in web design is that it provides us with a wide range of actions that the web page itself behaves. For example, we can let some elements on the web page constantly move randomly over the screen, or make a traffic light on the web page to constantly alter its color between red and green.

JavaScript

Furthermore we can let the webpage listen to the action that users make: if the user hover the mouse over a button, we can use JavaScript to change the color a little bit to notify the user that this is a button, the technique which is prevailing in web design. We can also use JavaScript to send user data to the server by filling forms or connecting to the server via some methods. To generalise, JavaScript is something that makes web page act, animate and respond.

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