

DES WEB (POO / JSCRIPT/ HTML / CSS3)

Objetivo

Al finalizar el curso el participante podr a hacer un recorrido por los temas fundamentales en el desarrollo de componentes WEB, desde conceptos de la programaci3n orientada a objetos, el lenguaje de marcado HTML, CSS y JavaScript ECMA 2015.

P blico Alvo

A cualquier persona con conocimientos b sicos de programaci3n que est3 interesado en aprender desarrollo frontend.

Pr3-Requisitos

Uso de editores de texto como Sublime Text, Atom, Visual Studio Code, Notepad++. Uso de navegadores Web. Configuraci3n de variables de ambiente e instalaci3n de software.

Carga Hor ria

40 horas (5 dias).

Conte do Program tico

Introduction to JavaScript

1. Overview of JavaScript Syntax using JavaScript ECMAScript6(ES6) specification

- Explain the purpose of JavaScript
- Describe the basic syntax of statements and comments in JavaScript
- Declare variables and write expressions by using JavaScript operators
- Arrays in JavaScript
- Create and call JavaScript functions
- Use conditional statements to control execution flow
- Use loop statements to implements to control execution flow
- Use JavaScript objects in your code
- Use JavaScript Object Notation (JSON) syntax to define an array of objects
- Programming the HTML DOM with JavaScript
- Displaying Data and Handling Events by Using JavaScript

2. Describe the purpose and basic structure of the DOM

- Select elements by using the DOM
- Add, remove, and modify elements by using the DOM
- Handle events form controls on a web page

3. Creating Objects and Methods Using JavaScript

4. Writing Well-Structure JavaScript

- Explain the scoping rules for local variables and describe how hoisting works
- Use immediately invoked functions, strict mode, and namespaces to minimize global name clashes
- Use common global objects and functions available in the standard JavaScript language

5. Creating Custom Objects (Review and additional examples)

- Create custom objects that contain properties and methods
- Use object literal notation to define the properties of objects
- Define constructor functions to assign a common set of properties to objects
- Use prototypes to implement object behavior
- Use the Object.create() function to create objects based on existing prototype

6. Extending Objects (Review and additional examples)

- Implement encapsulation in JavaScript
- Implement inheritance in JavaScript
- Add functionality to existing native objects
- ECMAScript Collections
- Managing property access with proxies
- Regular Expressions
- JavaScript Modules

Programming in HTML5 with JavaScript and CSS3

7. Overview of HTML

- Describe the structure of an HTML page
- Explain basic HTML elements and attributes
- Create and correctly markup an HTML page containing text elements
- Display graphics in an HTML page by using image elements, and linkpage together by using anchor elements
- Create an HTML from page
- Integrate JavaScript code into HTML page
- Overview of CSS
- Explain basic CSS syntax
- Describe how CSS selector work
- Describe how CSS styles inherit and cascade
- Attach CSS to an HTML page

8. Creating and Styling HTML5 Pages

- Creating an HTML5 pages
- Describe the new features of HTML5
- Explain how to use the new HTML5 elements for describing areas of a document and marking up text
- Explain how to use the new HTML5 elements for adding hyperlinks and images to a page
- Styling an HTML5 Page
- Use CSS text styles to set the fonts used in a page and other text properties
- Explain how to use the CSS box model to position elements on a page
- Use CSS to set the background for the elements on a page

9. Creating Forms to Collect Data and Validate User Input

- Overview of Forms and Input Types
- Use the HTML5 <form> element and specify its common attributes
- Explain how to use the new HTML5 input types
- Describe the attributes available with the new HTML5 input types to improve the user's experience
- Validating User Input by Using HTML5 Attributes
- Explain the principles of client-side forms validation
- Add forms validation to ensure that mandatory fields are not left empty
- Validate numeric input
- Validate text input
- Style fields to highlight input requirements
- Validating User Input by Using JavaScript
- Describe how to use the onSubmit event of a form to perform validation and override the default validation messages implemented by the browser
- Perform complex data validation by using regular expressions
- Perform additional checks to verify that mandatory fields are not empty
- Provide dynamic feedback on validation errors

10. Communicating with a Remote Server

- Sending and Receiving Data by Using XMLHttpRequest
- Explain how to browser uses HTTP GET requests to retrieve remote data
- Explain how to use the XMLHttpRequest object to send a request to a remote server
- Describe how to handlereturned by a server in response to a request
- Handle the data returned by a server in response to a request
- Process the received data asynchronously
- Send messages that transmit data to a server