DES WEB

POO / JScript/ HTML / CSS3

40 horas **Development** **Netec**

INTRODUÇÃO

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

OBJETIVO DO CURSO

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PÚBLICO-ALVO

A cualquier persona con conocimientos básicos de programación que esté interesado en aprender desarrollo frontend.

PRÉ-REQUISITOS

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

CONTEÚDO PROGRAMÁTICO

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 exiting 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 aserver