

## Web Technologies HTML, CSS, JavaScript & JQuery

**Level:** intermediate

**Length:** 21 hours

**Course Objective:** shows the place, the role of these elements in a more general context of web applications, how they integrates to each other, how they collaborate and how they are used

### What You Will Learn

- How to build browser based user interfaces for web applications
- Responsibilities, how the code in browser interacts with an application server
- Learn about each component: HTML (content), CSS (how to present the content), JavaScript (functionality), how they collaborate
- Learn a JavaScript library widely used in industry - JQuery

**Who Can Attend:** programmers who want to learn how to build browser based front ends for web applications

### Prerequisites

- Previous contact with HTML, CSS & JavaScript
- Knowledge of an object oriented programming language – facilitates learning of JavaScript
- Basic notions about web, HTTP protocol, client/server architecture

**Required Infrastructure:** VGA projector, whiteboard, personal computer connected to Internet

**Related Courses:** Programming ASP .NET MVC, Fundamentals of Java Enterprise, Building Web Applications with Apache, PHP & MySQL

### Description

The course gradually approaches these technologies starting with the content and structure of HTML (Hypertext Markup Language) documents, how the content is presented in browser by using CSS (Cascading Style Sheets), how it is solved the dynamic part by using JavaScript. It is presented JQuery, a very widely used JavaScript library.

These technologies are illustrated by a lot of examples and exercised by a many practical assignments.



## Contents

1. Introduction: context of using HTML, CSS and JavaScript, their role, the way they are used
2. **HTML and XHTML**: HTML elements, tags, attributes, HTML document structure, DOM – Document Object Model, development tools, document validation
3. **CSS**: syntax, ways to define CSS rules, selectors, ways to apply the rules (cascading), css validation
4. **JavaScript**: how to include JavaScript in HTML documents, language presentation – types, variables, operators, structures of control, functions, objects, arrays, event handling, event types, predefined objects in browser, document object, interaction with DOM, integration with HTML forms, JSON (JavaScript Object Notation), HTTP and JavaScript, Ajax, XMLHttpRequest object, JSONP
5. **JQuery**: general characteristics, selectors, methods of traversing DOM, event handling, styles and animation, interacting with DOM, JQuery and Ajax, using JQuery plugins, implementing JQuery plugins
6. **HTML5** (optional): page structure, text semantic elements, web forms, audio & video, canvas, web storage, offline applications, geolocation, web workers