

HTML5 Development

(4 days hands-on)

HTML5 is a major leap forward in contemporary Web application development. This course covers the latest features in this new generation of HTML, including full details of Web sockets and browser-server communications.

Contents:

- **Overview of HTML5:** Background and purpose of HTML5; The WHATWG and W3C specifications; HTML5 in a nutshell; Using HTML5 in upstream and downstream browsers; Emulation
- **Anatomy of HTML5 Markup:** Page structure; Structural and semantic elements; Deprecated elements; Using CSS; Creating forms; Multimedia support
- **Programming HTML5:** Overview of HTML5 APIs; Canvas vs. SVG; Using the APIs for Canvas
- **Communications:** Sending messages between documents; Using the PostMessage API; Ajax essentials; Overview of push technologies; Using XMLHttpRequest (XHR) Level 2; Monitoring progress; Handling server-sent events (SSEs); Browser and server support for SSE
- **Web Sockets:** Overview of real-time communications; Overview of the Web Sockets API; Protocols; Testing; Benchmarking; Web Sockets security overview; TLS and SSL certificates; Single sign-on; Transport protocols
- **Deployment:** Web Sockets and proxy servers; Web Sockets and firewalls; Web Sockets and load-balancing routers; Scalability; High availability; Cloud considerations
- **Real-Time Messaging:** Overview of publish/subscribe architecture; Overview of Java Message Service (JMS); Streaming Text Oriented Messaging Protocol (Stomp); Advanced Message Queuing Protocol (AMQP); Message brokers; Client-side messaging APIs
- **Real-Time Chat:** Overview of XMPP and IRC; Client-side APIs for XMPP; Interacting with Jabber and Google Talk
- **Web Workers:** Overview of Web Workers; Communication; Multi-core processor architecture
- **Storage:** Local storage vs. session storage vs. Web SQL databases; Best practices

Who Should Attend:

Developers who want to create compelling HTML5 Web applications.

Prerequisites:

Familiarity with HTML and JavaScript. Awareness of Ajax concepts is also an advantage.