

Web development fundamentals

A 3 day **Hands on** training course



Description

This three-day course helps build a foundation in the development of Web applications. This is not a HTML course but covers the technologies needed to develop web applications. Technologies covered include: ASP.NET, XML, AJAX and HTTP error codes.



Key outcomes

By the end of the course delegates will be able to:

- ✓ Program Web applications.
- ✓ Work with data and services.
- ✓ Troubleshoot and debug Web applications.
- ✓ Work with client side scripting.
- ✓ Configure and deploy web applications.



Training Approach

This structured course uses Instructor Led Training to provide the best possible learning experience. Small class sizes ensure students benefit from our engaging and interactive style of teaching with delegates encouraged to ask questions throughout the course. Quizzes follow each major section allowing checking of learning. Hands on sessions are used throughout to allow delegates to consolidate their new skills.



Details

Who will benefit?

Anyone looking for an introduction to web development.

Prerequisites

None.

Duration: 3 days

Overall rating:



Generic Training



Generic training compliments product specific courses covering the complete picture of all relevant devices including the protocols "on the wire".

"Friendly environment with expert teaching that teaches the why before the how."

G.C. Fasthosts

Small Class Sizes



We limit our maximum class size to 8 delegates; often we have less than this. This ensures optimal interactivity between delegates and instructor.

"Excellent course. The small class size was a great benefit..."

M.B. IBM

Hands On Training



The majority of our courses use hands on sessions to reinforce the theory.

"Not many courses have practice added to it. Normally just the theoretical stuff is covered."

J.W. Vodafone

Our Courseware



We write our own courses; courseware does not just consist of slides and our slides are diagrams not bullet point text.

"Comprehensive materials that made the course easy to follow and will be used as a reference point."

V.B. Rockwell Collins

Customise Your Course



Please contact us if you would like a course to be customised to meet your specific requirements. Have the course your way.

"I was very impressed by the combination of practical and theory. Very informative. Friendly approachable environment, lots of hands on."

S.R. Qinetiq

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Course Content

Programming web applications

Customise the layout and appearance of a web page
CSS; tables; embedding images; page layout for navigation.

Understand ASP.NET intrinsic objects

Request; Server; Application; Session; Response; HttpContext.

Understand state information in web applications

Understand how state is stored based on application design and hardware; understand different types such as session state, view state, control state and application state.

Understand events and control page flow

Application and page life cycle events; page events; control events; application events; session events; cross-page posting; Response.Redirect; Server.Transfer; IsPostBack; setting AutoEventWireup.

Understand controls

Understanding various types of controls, including user, server, web and validation controls; know which is the appropriate type of control for a scenario.

Understand configuration files

Understanding the usage of web.config and machine.config, and the settings that can be made.

Working with data and services

Read and write XML data

Understanding XML, XML validation
Does not include: Web services; XPath syntax; XmlDocument; XPathNavigator; XPathNodeIterator; XPathDocument; XmlReader; XmlWriter; XmlDataDocument; XmlNamespaceManager.

Distinguish between DataSet & DataReader objects

The ability to choose the proper data object to use based on application requirements/design.

Call a service from a web page

Creating a basic WCF service or web service so that it can be consumed; App_WebReferences; configuration.

Understand DataSource controls

LinqDataSource; ObjectDataSource; XmlDataSource; SqlDataSource.

Bind controls to data by using data binding syntax

Ensure that data is updated and displayed in data-aware controls.

Manage data connections and databases

Database connections; connection objects; connection pools; transaction objects.

Troubleshooting and debugging web applications

Debug a web application

Use in conjunction with custom error pages to display appropriate error information to the appropriate user; implement tracing of a web application, Trace.axd, Trace=True on @Page directive.

Handle web application errors

HTTP error codes.

Working with client-side scripting

Understand client-side scripting

Purpose of client-side scripting; various client-side scripting languages.

Understand AJAX concepts

ASP.NET AJAX implementation; working with client-side libraries, EnablePartialRendering, Triggers, ChildrenAsTriggers, Scripts, Services, UpdateProgress, Timer, ScriptManagerProxy, extender controls.

Configuring and deploying web applications

Configure authentication and authorisation

Forms authentication, Windows authentication; authorisation; file authorisation; impersonation
Does not include: Windows Cardspace authentication, Passport (Windows Live ID) authentication, Custom authentication.

Configure projects, solutions and reference assemblies

Local assemblies; shared assemblies (GAC); web application projects; solutions; configuration files; AppSettings.

Publish web applications

Choosing the appropriate method to deploy an application based on existing or intended environment; updatable vs. not updatable; MSI deployment; Internet Information Server (IIS) installation and configuration.

Understand application pools

Purpose of application pools; effect of application pools on web applications.

