

## Developing ASP.NET Web Applications: Hands-On - 4 Days

### *Course 512 Overview*

- You Will Learn How To**
- Build dynamic Web applications with ASP.NET and Visual Studio
  - Create consistent user interfaces with Master pages, Themes and Skins
  - Retrieve, modify and report on data from any data source
  - Program common application tasks including master-detail pages with minimal code
  - Secure access to the application using Web Forms authentication
  - Generate multiple displays in a single page with templates
- Course Benefits** ASP.NET enables developers to build dynamic Web applications and sophisticated user interfaces with minimal code. In this course, you gain the skills needed to develop and deploy Web applications with ASP.NET. You learn how to build sophisticated user interfaces by configuring controls and extending them with custom code. You also learn how to integrate data access with data-source controls.
- Who Should Attend** Those who are interested in building Web applications with ASP.NET. Experience programming in a modern object-oriented language and an understanding of HTML are assumed.
- Hands-On Training** You learn how to build a complete and authentic Web site using Visual Basic and C#. Exercises include:
- Ensuring a consistent user interface with Master pages, Themes and Skins
  - Implementing navigation models with SiteMapPath, Menus and TreeViews
  - Identifying users with Login controls
  - Binding pages to various data sources
  - Displaying and updating single and multiple records with DataView controls
  - Reporting data over the Web
  - Personalising pages with Profiles

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### Course 512 Outline

#### Getting Started with ASP.NET

- Constructing Web Forms with ASP.NET controls
- Developing with Visual Studio
- Debugging with Visual Studio Development Web server
- Applying the common Web Form controls

#### Architecting the User Interface (UI)

##### Designing with Master pages

- Ensuring uniform page layout
- Devising site templates
- Extending Master pages with custom properties

##### Data-driven site navigation

- Implementing ASP.NET Menu, TreeView and SiteMapPath controls
- Defining your site structure using SiteMaps
- Dynamically moving between pages in code

##### Standardising the UI

- Styling controls with Skins
- Building Themes from Skins and CSS

#### Retrieving and Updating Data

##### Exploiting the design-time environment

- Connecting to data with ASP.NET DataSource controls
- Binding data to Web Form controls
- Automating data access with GridView, ListView and DetailView
- Sorting and paging with GridView, ListView and DataPager

##### Modifying data

- Databind to middle-tier business objects
- Code-free declarative data binding
- Updating, deleting and inserting records with two-way data binding
- Integrating custom update code

##### Reporting

- Delivering reports with Crystal Reports
- Generating selection criteria for filtering data
- Reporting from dynamically cached data

#### Enhancing Web Pages

##### Building master-detail pages

- Parameterising the data source
- Customising DataViews with templates

- Coordinating master-detail views

#### Creating reusable UI components

- Building user controls
- Incorporating data retrieval into user controls

#### Securing the Application

##### Controlling site access

- Configuring Web Forms authentication and authorisation
- Administering users and roles
- Establishing user profiles

##### Leveraging the Login controls

- Authenticating users with the Login control
- LoginView
- LoginStatus
- LoginName

##### Customising security

- Integrating with Active Directory
- Configuring the security provider to take control of authentication
- Accessing user and role information from code

#### Maintaining State

##### Managing user information

- Inserting data into the ViewState
- Employing user variables with Sessions

##### Caching application information

- Programmatically caching business objects
- Dealing with stale data

#### Improving Application Functionality

##### Validating data

- Validator controls: Required, Range, Comparison, Summary, RegularExpression
- Implementing business rules with the Custom Validator
- Setting cursor focus on error

##### Simplifying complex processes

- Sequencing tasks with the Wizard control
- Partitioning data with MultiView

##### Handling common tasks

- Sending e-mail
- Uploading files

- Accepting dates through the Calendar control

#### Deploying Your Application

- The ASP.NET compilation model
- Publishing your Web site