

ASP.NET TRAINING



Overview

This ASP.NET training class teaches experienced developers the C#.NET/VB.NET, ADO.NET skills they need to successfully build database-driven Web applications and Web Sites. It will guide how to build web-based enterprise applications using ASP.NET and Visual Studio. It will also give the comfort to the attendees developing the Web Services using .Net framework in Service-oriented Architecture.

Course Duration

45 Working days, daily one and half hours

Prerequisite

At least consistent object-oriented or object-based development experience in Java, C#, VB, or another modern object-oriented or object-based language. In addition, should know the basics of SQL and relational databases.

Course Contents

1. Introduction to web technologies
2. Web Forms Architecture
3. ASP.Net and HTTP
4. Web application developing using Visual Studio
5. State Management and Web Applications
6. ASP.Net Server-side controls
7. Caching in ASP.Net
8. ASP.Net application configuration
9. Debugging, Diagnostics of application
10. Connectivity with Database using ADO.Net/Entity Framework
11. Data Access Controls
12. Personalization and Security
13. Introduction to Web Services
14. Introduction to WCF

Course Contents Details

Introduction To Web Applications

[Prerequisites]

- Types of Applications – Web, Desktop & Mobile Applications
- Web applications with Web Server
- Web Server role, about IIS, APACHE, and CASSINI
- Web Browsers, Web Support Languages
- Understanding http, TCP/IP, LAN, WAN & O/S role in web development
- Why Scripting & its importance
- Client-Side & Server-Side Scripting

OVERVIEW OF .NET (ASP.NET)

- Intro to .NET
- Drawbacks of Current Trend
- .NET Framework
- Key Design Goals
- CLR, CTS, MSIL, & Other Tools
- Multiple Language Interaction & Support
- Moving from Project to Assemblies...
- Security Services and environment
- Vista & IIS 6.0/7.0 & their requirements
- Installing & Configuring VS.NET/.NET 2.0/3.0/3.5
- AJAX(ATLAS) importance in Web applications
- The need for AJAX & the Solution

ACTIVE SERVER PAGES .NET ROLE

- Shifting from ASP to ASP.Net, Asp.net to web 2.0 (new)
- ASP.Net as Framework, Namespaces
- ASP.Net – New Scenario in development process with IDE – VS.NET
- Web Pages to Web Forms, HTML – ASP.NET, State management- an Important Objective
- Understanding the ASP.NET Execution Scenario
- C#.Net role in ASP.NET Development
- ASP.NET/C#.Net – the Industry approach

- HTML, HTML Controls, ASP.NET Controls
- Client-side & Server-side Controls
- Consuming HTML Client/Server Controls in WebForms
- Consuming ASP.Net Controls in WebForms
- Understanding the Rendering Nature of Controls Developing a Simple Startup Application

ASP.NET WEB FORMS – THE NEW TECHNOLOGY(BEGINNING)

- Introducing Web Forms, Worker process
- Working with Server Controls
- Applying Styles to Controls, Themes, Skins etc

FORM

- Page Directives and its use
- Separating Code & Design
- New Code behind Techniques
- Implementing ASP.NET Server Controls
- Types of ASP.NET & their need/render
- Intrinsic – Validation – Bound – DataSource
- Navigation – Login – Web Parts & AJAX.- as building blocks Asp.net.

WEB FORMS – INTRODUCTION TO AJAX INPUT VALIDATION

- Validating Form with Validation Controls of Asp.net
- Using RequiredFieldvalidator control
- Using CompareValidator Control Using RangeValidator Control
- Using CustomValidator control
- Create Server-side / Client-side functions for – CustomValidator Control
- Group Validations & avoiding Validations.
- Finally – Client Targets & ValidationSummary control

ADO.NET I – DATABASE SERVICES (V1.1/2.0/3.5)

- XML, XML to HTML, XML & Databases
- XML Schema Definition Tool
- Overview of ADO.NET/ XML Support in .NET
- Connect/Insert/Update/Delete, Query data - using ADO.NET
- Retrieve data with datasets
- Data Adapters, Understanding Data tables
- Build Data table programmatically
- Filter and sort Data table, Data Relations
- ADO.NET LINQ

ADO.NET – II

- Parameters with Command Object
- Stored Procedures with ADO.NET using –output parameters
- Develop a Registration form using ADO

PRESENTING DATA USING ASP.NET BOUND CONTROLS (USING VB.NET/C#)

- ASP.Net bound controls
- DataSource Controls
- Repeater & its uses.
- DataBound and DataAware Controls
- Bind data to Dropdownlist Control
- Datalist control
- DataGrid(1.1/2.0) Control
- GridView & its importance in Development
- GridView(Basic) – simple uses
- GridView (Advanced) – Runtime Fields, Empty DataRows, NTier ...
- FormView & DetailsView
- ListView

AJAX (ATLAS)

- Introduction to Microsoft AJAX.(Code name ATLAS)
- XML Http object
- Programming with XML HTTP Object
- Advantages and Disadvantages of AJAX.
- Features of AJAX.
- MS Implementation of AJAX

ASP.NET ERROR HANDLING & DEBUG.

- Error Handling & .NET Runtime
- Avoid Errors before they occur
- Structured Error Handling
- Catching General Exceptions
- Catching Specific Exceptions
- Throwing Exceptions
- Custom Exceptions
- Page Level Error Handling
- Application Level Error Handling

USER CONTROLS

- Creating User Controls
- Adding member to user controls.
- Registering User Controls
- Properties & Methods
- Dynamically loading user controls
- Master Pages

CONFIGURING ASP.NET APPLICATION

- Web Application configuration-Advantages.
- New Configuration Model, ASP.NET Conf Tool
- Web Application Machine Configuration
- Global Assembly Cache, Strong Names VS2005.
- Working with Assembly Info
- Web.Config, Machine.Config
- Process Model –System Configuration.

ASP.NET WEB APPLICATIONS

- About Session & Application object
- Comparison between Session & Application
- Using the Global.asax file
- Managing Application State
- Http Handlers
- Application & Session Variables
- Application & Session Events

CACHE SERVICES

- Caching Overview
- Advantages of Caching
- Comparing with Application & Session var's
- Page Output Caching
- Page Data Caching
- Fragment Caching

SECURITY

- Security Overview
- Authentication & Authorization
- Windows-based Authentication
- Passport Authentication.(WebServices)
- Forms-based Authentication
- Memberships
- Authorizing Users and Roles
- User Account Impersonation

DEPLOYMENT

- Deploying ASP.NET Application

ASP.NET XML WEB SERVICES

- Introducing XML Web Services
- Differences Between DCOM / Remoting / Web Services
- Asp.net Webservices.
- Writing a Simple Web Service
- Xml web services stack, SOAP,WSDL,UDDI,Sync an
- Async calls
- Web Service Type Marshalling
- Using Data in Web Services
- Using Objects and Intrinsic
- HTML Pattern Matching
- WCF

WEBPARTS

- New concept in Web Apps.
- Advantages and Disadvantages.
- Predefined/ user defined controls with webparts.

WINDOWS VISTA-NEW FEATURES

- Gadgets/side bars.
- Office 2007
- VS to VS.net tools for office.

MOBILE APPLICATIONS

- Mobile forms
- Mobile Environment – Today's Need.
- Needed Infrastructure
- WAP, WML overview.

- MS Mobile Explorer.
- Open ware Simulators.
- Line smart phones and Pocket PC Applications.

SMARTPHONE AND POCKET PC

- What is Smartphone / Pocket Pc?
- Application for smartphone / pocket pc
- Deploying / Run application in devices / Live

VSTO – VS.NET

- What is VSTO?
- Programming developing managed addings for outlook.
- Advantages VSTO
- VSTO 2005 SE
- Runtime component.

[Additional Needed Services in Web Apps(Optional)]

- MSMQ in ASP.Net
- Its need in data transferring
- MSMQ – Its role in heterogeneous networks and systems
- Crystal Reports in ASP.Net
- Designing Reports for Web Browsers

[OVERVIEW]

- SharePoint
- BizTalk