

Course duration

- 5 days

Course Benefits

- Gain a thorough understanding of the philosophy and architecture of Web applications using ASP.NET.
- Acquire a working knowledge of Web application development using Web Forms and Visual Studio.
- Optimize an ASP.NET Web application using configuration, security, and caching.
- Access databases using ADO.NET, LINQ and the Entity Data Model.
- Use newer features in ASP.NET.
- Implement rich client applications using ASP.NET AJAX.
- Create Web applications using the Model-View-Controller design pattern.
- Create HTTP services using ASP.NET Web API.
- Deploy an ASP.NET Web application to the Azure cloud.

Available Delivery Methods

Public Class

Public expert-led online training from the convenience of your home, office or anywhere with an internet connection. Guaranteed to run .

Private Class

Private classes are delivered for groups at your offices or a location of your choice.

Course Outline

1. Introduction to ASP.NET
 1. Web Application Fundamentals
 2. Using Internet Information Services
 3. Web Forms
 4. ASP.NET MVC
 5. Web Services
 6. ASP.NET Features
2. Web Forms Architecture
 1. Page Class
 2. Web Forms Life Cycle

- 3. Web Forms Event Model
 - 4. Code-Behind
- 3. ASP.NET and HTTP
 - 1. Request/Response Programming
 - 2. HttpRequest Class
 - 3. HTTP Collections
 - 4. HttpResponse Class
 - 5. Redirection
 - 6. HttpUtility Class
- 4. Web Applications Using Visual Studio
 - 1. Using Visual Web Developer
 - 2. Visual Studio Forms Designer
 - 3. Using Components
 - 4. Shadow Copying
 - 5. Using the Global.asax File
 - 6. Data Binding
- 5. State Management and Web Applications
 - 1. Session State
 - 2. Application State
 - 3. Multithreading Issues
 - 4. Cookies
- 6. Server Controls
 - 1. HTML Server Controls
 - 2. Web Forms Server Controls
 - 3. Rich Controls
 - 4. Validation Controls
 - 5. User Controls
- 7. Caching in ASP.NET
 - 1. What Is Caching?
 - 2. Page-Level Caching
 - 3. Page Fragment Caching
 - 4. Optimizing Your ASP.NET Application
 - 5. Application Caching
- 8. ASP.NET Configuration and Security Fundamentals
 - 1. Configuration Overview
 - 2. Authentication and Authorization
 - 3. Forms Authentication
 - 4. Windows Authentication
 - 5. Security and ASP.NET
- 9. Debugging, Diagnostics and Error Handling
 - 1. Debugging
 - 2. Application Tracing
 - 3. Page Tracing
 - 4. Error Handling
- 10. More Server Controls
 - 1. Newer ASP.NET Controls
 - 2. Menus

- 3. Master Pages
- 11. ADO.NET and LINQ
 - 1. ADO.NET Overview
 - 2. .NET Data Providers
 - 3. Connections
 - 4. Commands
 - 5. DataReaders and Connected Access
 - 6. Data Sets and Disconnected Access
 - 7. Language Integrated Query
- 12. Data Controls and Data Binding
 - 1. Data Source Controls
 - 2. Connection String Storage
 - 3. GridView
 - 4. DetailsView
 - 5. FormView
 - 6. Object Data Sources
 - 7. ListView
 - 8. DataPager
 - 9. Entity Data Model
 - 10. EntityDataSource
- 13. ASP.NET AJAX
 - 1. Rich Client Applications
 - 2. AJAX
 - 3. ScriptManager
 - 4. UpdatePanel
 - 5. AJAX Client Library
 - 6. Remote Method Calls
- 14. ASP.NET MVC
 - 1. Model-View-Controller Pattern
 - 2. What is ASP.NET MVC?
 - 3. ASP.NET MVC versus Web Forms
 - 4. ASP.NET MVC Projects in Visual Studio
 - 5. Controllers
 - 6. Action Methods and Routing
 - 7. Views
 - 8. Strongly-Typed Views
 - 9. Model Binding
 - 10. Validation
- 15. ASP.NET Web API
 - 1. Web API
 - 2. Representational State Transfer
 - 3. REST and Web API
 - 4. HTTP Services Using Web API
 - 5. Using Fiddler
 - 6. Web API Clients
- 16. ASP.NET and Azure
 - 1. What Is Windows Azure?

2. A Windows Azure Testbed
3. Deploying an Application to Azure
4. Updating an Application on Azure

Class Materials

Each student will receive a comprehensive set of materials, including course notes and all the class examples.

Class Prerequisites

Experience in the following *is required* for this ASP.NET class:

- Good working knowledge of C# and the .NET Framework.

Experience in the following *would be useful* for this ASP.NET class:

- Knowledge of JavaScript is recommended for the AJAX lesson.