

ASP.NET 3.5 Programming Using C#.NET

Duration: 60 HOURS | Price: INR 6000 **SAVE NOW! INR 5000 until December 1, 2011**

Students Will Learn

- .NET Framework Architecture
- C# Language Syntax
- Managing Run-time Exceptions
- Using Web Forms & Handling Events
- Working with ASP.NET Controls
- Designing Master Pages
- Managing State
- Building Secure Web Sites
- Interacting with Databases
- Using ASP.NET Data Bound Controls

Course Description: This course provides students with hands on experience using Visual Studio to create dynamic web applications with the ASP.NET 3.5 Framework using C#. This class provides a thorough introduction to the C# programming language, including coverage of the essentials of the C# programming language, built in data types, operators, control structures, classes and methods.

Students then learn how to leverage the power of the .NET Framework to build web user interfaces. Students will learn how to build web forms and work with a variety of ASP.NET controls, including validation controls and user controls. Students explore why state management is difficult within web applications and learn many different ASP.NET techniques for managing state, including application, session and view state objects, as well as effective use of cookies. Students also learn how to use ADO.NET to interact with data sources and display data.

Other topics include: error handling and debugging; using Web.config to control application configuration; uploading files and sending e-mail; using master pages to provide a consistent look and feel to a web application; developing and consuming web services; file I/O; using XML data with DataSets; and deploying ASP.NET applications. Comprehensive labs and exercises provide the students with experience creating and deploying dynamic web applications.

Course Prerequisites: Knowledge of fundamental HTML syntax is helpful, but not required. Prior experience with a scripting or programming language is required.

Follow-up Courses: Advanced .NET Framework Programming Using C#, Advanced ASP.NET Application Development Using C# and AJAX

ASP.NET 3.5 Programming Using C# Course Overview

Introduction to .NET

- Overview of the .NET Framework
- How .NET is Different from Traditional Programming
- Common Language Runtime (CLR)
- Common Language Specification (CLS)
- Common Type System (CTS)
- .NET Assemblies
- Microsoft Intermediate Language (CIL)
- .NET Namespaces
- .NET Framework Class Library

Language Fundamentals

- C# Program Structure
- Defining Namespaces
- Understanding C# Data Types
- Defining Variables and Constants
- Comparing Value Types versus Reference Types
- Working with Operators and Expressions
- Performing Type Conversions , Using Console I/O
- Formatting Numbers, Date and Times

Functions and Parameters

- Defining Static and Instance Functions
- Passing Parameters by value and by reference
- Overloading Functions
- Using Variable Length Parameter Lists

Collections

- Defining and Using Arrays
- Understanding System.Array
- Using .NET Collections
- Working with ArrayLists and Hashtables
- Using .NET Generic Collections
- Working with Lists and Dictionaries
- Introducing LINQ

Introduction to Visual Studio

- Setting Profiles
- Creating a Project
- Using the Code Editor
- Setting Project Properties
- Adding References
- Compiling a Program
- Running a Program
- Debugging a Program
- Using the MSDN (Help)

Conditionals and Looping

- if/else
- switch
- while
- do/while
- for
- foreach

Exception Handling

- What are Exceptions?
- .NET Exception Hierarchy
- Catching Exceptions
- Throwing Exceptions
- Managing Resources with Finally
- Defining Custom Exception Types

Object-Oriented Programming

- Overview of Object-Oriented Programming
- Working With Enumerations
- Defining and Using Classes
- Extending .NET Classes via Inheritance
- Defining and Implementing Interfaces
- Understanding the Role of Interfaces in .NET

ASP.NET 3.5 Features

- Overview of ASP.NET 3.5
- Understanding Client-Side vs. Server-Side Execution
- Working with Web Forms
- Understanding ASP.NET Application Folders
- Using Web.config

Using Controls

- Working with HTML Controls
- Working with Web Controls
- Creating Controls at Runtime
- Defining and Using Custom User Controls

Validation

- Understanding the ASP.NET Validation Controls
- Performing Client-Side Validation
- Performing Server-Side Validation
- Using the Regular Expression Validator
- Customizing Validation
- Working with Validation Groups

Maintaining State

- Understanding why the Web is Stateless
- Maintaining State within ASP.NET Applications
- Using the Application Object
- Using the Session Object
- Using the ViewState Object
- Reading and Writing Cookies
- Using the Query String

Using XML

- Understanding XML and XML Schemas
- Reading XML Data with a DataSet
- Writing XML Data with a DataSet

Creating ASP.NET Pages

- Building ASP.NET Pages
- Using Page Directives
- Working with the Code-Behind Model
- Understanding the Life-cycle of a Web Form
- Handling Page Events

Handling Events

- Understanding the Event Driven Programming Model
- Writing Event Handlers
- UnderstandingPostBack versus Non-PostBack Events
- Sharing Event Handlers between Events
- Using Global.asax

Master Pages

- Understanding the Master Page Architecture
- Designing a Master Page
- Designing Content Pages

ADO.NET

- Understanding the ADO.NET Object Model
- Connected vs. Disconnected Access
- Using a Connection to Connect to a Data Source
- Using a Command to Execute Queries and Stored Procedures
- Using a DataReader to Work with Cursors
- Using the DataSet with Disconnected Data
- Using DataAdapters with DataSets

Data Binding in ASP.NET 3.5

- Understanding ASP.NET Data Binding
- Examining ASP.NET Data Bound Controls
- Using the ListBox Control
- Using the GridView Control
- Using the DetailsView Control
- Using the FormView Control

Securing ASP.NET 3.5 Applications

- Understanding the ASP.NET 3.5 Security Model
- Authenticating Users
- Authorization User Requests
- Using the ASP.NET Login Controls
- Using the ASP.NET Web Site Administration Tool

Introduction to Web Services

- Overview of Web Services
- Creating a Web Service
- Using WSDL and Proxy Classes
- Consuming a Web Service

Deploying ASP.NET Applications

- Overview of ASP.NET 3.5 Deployment Options
- Using Copy Web Site Tool
- Using Publish Web Site Tool
- Using Web Setup Projects

Student Testimonials

"Good class. Labs were very helpful to work through mistakes to learn how to code up what we had just learned."

– Aravindh

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