

# **COURSE CONTENT**

# Microsoft .NET 4.5



## Microsoft .NET 4.5 Training (Beginner Level)

#### .NET 4.5 Fundamentals

- Understanding Object-Oriented Programming
- Understanding Data Types and Collections
- Understanding Events and Exceptions
- Understanding Code Compilation and Deployment
- Understanding Input/Output (I/O) Classes
- Understanding Security

#### Web Development Fundamentals

- Creating a Web Page
- Creating an Interactive Web Page
- Working with XML, Data Objects, and WCF
- Working with Data
- Working with Client-Side Scripting
- Troubleshooting and Debugging Web Applications
- Configuring and Deploying Web Applications

### Microsoft Advance Level .NET 4.5 training (Expert level)

#### Programming in HTML5 with JavaScript and CSS3

- Overview of HTML and CSS
- Creating and Styling HTML5 Pages
- Introduction to JavaScript
- Creating Forms to Collect Data and Validate User Input
- Communicating with a Remote Data Source
- Styling HTML5 by Using CSS3
- Creating Objects and Methods by Using JavaScript
- Creating Interactive Pages using HTML5 APIs
- Adding Offline Support to Web Applications
- Implementing an Adaptive User Interface
- Creating Advanced Graphics
- Animating the User Interface

- Implementing Real-Time Communications by Using Web Sockets
- Creating a Web Worker Process

#### Programming in C#

- Review of C# Syntax
- Creating Methods, Handling Exceptions, and Monitoring Applications
- Developing the Code for a Graphical Application
- Creating Classes and Implementing Type-safe Collections
- Creating a Class Hierarchy by Using Inheritance
- Reading and Writing Local Data
- Accessing a Database
- Accessing Remote Data
- Designing the User Interface for a Graphical Application
- Improving Application Performance and Responsiveness
- Integrating with UnmanagedCode
- Creating Reusable Types and Assemblies
- Encrypting and Decrypting Data

#### **Developing ASP.NET MVC 4 Web Applications**

- Exploring ASP.NETMVC4
- Designing ASP.NET MVC 4 Web Applications
- Developing ASP.NET MVC 4 Models
- Developing ASP.NET MVC 4 Controllers
- Developing ASP.NET MVC 4 Views
- Testing and Debugging ASP.NET MVC 4 Web Applications
- Structuring ASP.NET MVC 4 Web Applications
- Applying Styles to ASP.NET MVC 4 Web Applications
- Building Responsive Pages in ASP.NET MVC 4 Web Applications
- Using JavaScript and jQuery for Responsive MVC 4 Web Applications
- Controlling Access to ASP.NET MVC 4 Web Applications
- Building a Resilient ASP.NET MVC 4 Web Application
- Using Windows Azure Web Services in ASP.NET MVC 4 Web Applications
- Implementing Web APIs in ASP.NET MVC 4 Web Applications
- Handling Requests in ASP.NET MVC 4 Web Applications
- Deploying ASP.NET MVC 4 Web Applications