

## TRAINING SYLLABUS

# ASP.NET

*ASP.NET is the improved and advanced version of ASP technology released by Microsoft Corporation. ASP.NET classes offering .net training courses also teaches stuff to boost up the performance of the website. Skilled training and live project are ingredients to reach the level of best developer.*

*By Copperseeds Technologies Pvt. Ltd., Kinfra Park, Koratty*

# **.NET PLUS ASP.NET + MCTS + WCF SQL PACKAGE**

## **Module 1: ASP.NET 4.5 - Level 1 (using Microsoft Visual Studio 2012)**

### **1. .NET Platform**

- Explore NET Framework 4.5
- Understand Common Language Runtime
- Understand the role of CTS and CLS
- Learn about Base Class Libraries
- Explain the Difference between Managed Code and Unmanaged Code
- Start exploring IDE-Visual Studio 2012

### **2. Core C# Programming**

- Working with Console Class (Input and Output)
- Learn how to create C# Data Type and Variable
- Learn about Data Type Conversions
- Working with Operators
- Creating Conditional and Looping Constructs
- Working with Arrays and Array functions
- Implementing Methods and Parameters
- See how to use Named and Optional Parameters
- Explain the Difference between Value Types and Reference Types
- Learn how to implement String Handling

### **3. Object Oriented Programming**

- Creating Class and Object
- Explore OOP Features with examples
- Working with Constructor and Destructor
- Learn about Modifiers and Access Specifiers
- Learn how to use Abstract Class and Interface
- Developing Namespaces and Assemblies
- Using Exception Handling
- Working with File I/O Operations

### **4. HTML 5**

- Describe HTML 5
- Creating <canvas> element for 2D drawing
- Creating <video> and <audio> elements for media playback
- Implement content-specific elements <article>, <footer>, <header>, <nav>, <section>
- Working with controls- calendar, date, time, email
- Working with New Form Elements

### **5. JavaScript**

- Define JavaScript
- Create and Manipulate Variables
- Implement Functions
- Learn how to use JavaScript Events
- Developing Popup Boxes
- Learn how to use Client Side Validation

### **6. CSS3**

- Define CSS3
- Create Selectors

- Use Box Model
  - Implement Backgrounds and Borders
  - Use Text Effects
  - Learn how to use 2D/3D Transformations
  - Implementing Animations
  - Working with Multiple Columns
  - Explore User Interface
- 7. ASP.NET Web Application Development**
- Understand Web Application Fundamentals
  - Creating Standard Web Controls and Events
  - Working with Navigation Controls
  - Working with Rich Server Controls
  - Working with Validation controls
  - Create Web User Control
- 8. State Management**
- Create and manipulate Managing Session
  - Implementing View State
  - Create and manipulate Query Strings
  - Managing Cookies
- 9. Customizing Web Applications**
- Implementing Themes and Skins
  - Implementing Web User Control
  - Master Pages and Content Pages
  - Using Site Map Control
- 10. Designing and Implementing Databases with MS SQL Server 2012** Introduction to RDBMS
- Familiarizing SQL Server 2012
  - Creating Tables and Constraints
  - Implement Aggregate Functions, Order by and Group by
  - Join and Sub Query
  - Creating Stored Procedures
  - Backup, Restoring and Moving a database
- 11. ADO.NET**
- Learn about Data Binding
  - Create Database Application (Data Reader)
  - Create Database Application (Dataset)
  - Working with Grid View and Data Controls
  - Learn how to use XML and ADO.NET
- 12. Handling Emails**
- Describe Protocols for Email
  - Learn how to Send Mail using ASP.NET
  - Managing Attachments
- 13. Introduction to Advanced technologies in ASP.NET**
- Introduction to Ajax, Query
  - Introduction to WCF, Silverlight, WPF
  - Introduction to Cloud computing (Windows Azure)
  - Introduction to SharePoint Development

## **Module II:- Advanced ASP.NET 4.5 - Level 2 (using Microsoft Visual Studio 2012)**

### **1. C# Advanced Features**

- Working with Delegates and Events
- Creating Collections and Generics
- Learn about Language Integrated Query (LINQ)
- Create Private and Shared Assemblies
- Explore Dynamic Types and DLR
- Creating Processes and AppDomains
- Threading and Multi Threaded Application
- Create and implement Object Serialization

### **2. New Features in NET 4.5**

- Learn about Windows Store Apps
- Create Metro Style Applications
- Learn how to use Portable Class Libraries
- Managed Extensibility Framework (MEF)
- Working with Asynchronous Operations
- Working with Parallel Computing

### **3. Authentication and Authorization**

- Explain about Authentication and Authorization
- Describe Anonymous Authentication
- Understand Windows Authentication
- Learn how to use Forms Authentication

### **4. AJAX and JQuery**

- Working with Ajax Controls
- Explore Ajax Control Tool Kit
- Understand Ajax Web Form
- Extenders
- Introduction to JQuery
- Implement JQuery in Web Application

### **5. Language Integrated Query**

- Working with LINQ to DataSet.
- Working with LINQ to SQL.
- Working with LINQ to XML

### **6. Using Entity Framework**

- Generating and Querying an Entity Data Model (EDM).
- Querying data using object Services
- Customizing the Entity Data Model

### **7. Silverlight Application**

- Silverlight Design fundamentals
- Programming Silverlight applications
- Manipulating XAML Elements Programmatically
- Implement Event handling

### **8. WCF**

- WCF Essentials
- Address, Binding and Contract
- WCF Services and Clients
- WCF Service Libraries
- WCF Test Host and Test Client

### **9. Cloud Computing**

- Intro Cloud computing

- Access and use the Windows Azure Developer Portal
- Create Cloud computing Application
- Test a cloud application in Visual Studio
- Publish a cloud application in Live Microsoft Datacenter

#### 10. **MVC4**

- Creating MVC Models
- Creating a Data Repository
- Implementing MVC Controllers
- Implementing MVC Views

#### 11. **Windows Phone Mobile Application**

- Creating Mobile Web Forms
- Viewing and Testing Mobile Web Applications
- Using Mobile Controls

#### 12. **Deployment**

- Managing Web Server (IIS)
- IIS Express
- Deploy ASP.NET Web Application
- Copy and Publish Website
- ASP.NET Web Hosting