

## ASP.NET WITH C#

Duration: 60 Hrs.

### Overview

ASP.net is a server-side scripting technology that can be used to create dynamic and interactive Web applications. One can combine ASP with Extensible Markup Language (XML) and Hypertext Markup Language (HTML) to create powerful interactive Web sites. You can code your applications in any language compatible with the common language runtime (CLR), including Microsoft Visual Basic and C# etc. ASP.NET is part of the .NET Framework, and when coding ASP.NET applications you have access to classes in the .NET Framework.

### Course Objective

This 80 hours training program will help the learner understand the entirely new programming model for creating network applications that take advantage of the Internet. On completion of the training, learner will have good knowledge of .Net framework, C# language fundamentals, classes, inheritance, and web applications, HTML, JS, CSS, Deployment and Hosting.

### Prerequisite

No prior knowledge or experience is required.

### Learning Content

Topic	Sub Topic
.NET Framework Fundamentals	History of .NET Framework
	The CLI Concept
	Components of .NET Framework
	Advantages Of .NET Framework
	.NET Framework Versions
	Limitation Of .NET Framework
C# Language Fundamentals	C# History
	C# Language Features
	Compilation & Execution of C# Programs
	Naming Conventions for Identifiers, Keywords ,Variables & Constants
	Data Types
	Operators
	Programming Constructs(Control Statements & loops)
	Type Casting, Boxing & UnBoxing

	Taking Input from Console
OOP's Concepts Overview	Programming Approaches
	What is OOP's ?
	Class & Object
	State & Behaviour of Objects
	Abstraction, Encapsulation, Inheritance, Polymorphism
	Object Base and Object Oriented Programming Languages
Classes in C#	Classes and Methods
	Class Members
	Access Specifiers in C#
	Methods In C#
	Method Parameters
	-Value, Ref, Out, Named Parameters
	Method Overloading
	Constructors and Their overloading
Properties in C#	Properties in C#
	Types of Properties and their Implementation
Array and String	Array in C#
	Types of arrays and their use
	Arrays with params keyword as Method Parameter
	String In C#
	Types of string(String & StringBuilder Class)
Inheritance & Interface Implementation	What is Inheritance?
	Types of Inheritance
	Visibility of Class members in Inheritance
	Abstract Classes and Abstract Methods
	Interface in C#
	Interface Implementation
Collections Framework	Collections?
	System.Collections namespace
	Collection Implementation
Delegate & Events	What is delegate?
	Types of delegate
	delegate implementation
	what are events?
	event instantiation and invocation
Assembly & Namespaces	What are Namespaces?
	Namespace implementation
	What is Assembly?
	Types of Assembly
	Global Assembly Cache(GAC)

	Creating Assemblies and Using them into other Applications
Exception Handling	What are Exceptions?
	Handling Exceptions in C#
	try, catch, finally mechanism
Introduction to Web Applications	Distributed Application Fundamental
	Client-Server Architecture Application
	What Are Client And Server
	Role Of Web Server
	IIS(Internet Information Services) overview
ASP.NET Overview	Evolution Of ASP .NET
	Drawback Of Classic ASP
	Advantages of ASP.NET over ASP
	Features Of ASP .NET
	Creating Web Sites Using Visual Studio
HTML Basics & JavaScript	HTML Basics
	Formatting Tags
	Using Images And Hyperlinks
	Tables And Forms
	Input Controls
	Using JavaScript with HTML & ASP.NET
Web Forms in ASP.NET	Web Forms Fundamentals
	Page Life Cycle
	isPostBack & AutoPostBack Properties
Web Interface Development	Creating Webpages
	ASP.NET Controls
	Most Commonly used Server Controls
Master Page & CSS	Master Pages in ASP.NET
	Working with Master Pages
	CSS with Webpages
Working with SQL Server	SQL Basics
	DDL,DML and DRL Queries
ADO.NET	Introduction to ADO .NET
	ADO.NET Components
	Connected & Disconnected Implementation
	Data Binding With Controls
Data Controls in ASP.NET	Data Controls overview
	Working with GridView,DataList and Repeater controls
State Management in ASP.NET	What is State Management?
	HTTP Protocol
	Client Side State Management(ViewState,QueryString,Cookies)
	Server Side State Management(Session & Application)

	Global Application Class File Overview
Validation	What Is Validation?
	Validation Controls
	Client Side Validation
	Server Side Validation
Security in ASP.NET	Why Security?
	Types Of Security
	Authentication And Authorization
	Login Controls
Ajax with ASP.NET	Ajax Introduction
	Ajax Extension Controls
	Ajax Toolkit Overview
Introduction to Silverlight	Silverlight Overview
	ASP.NET with Silverlight
Deployment and Hosting	Deployment Basics
	Publishing and Hosting Web Applications on Web Server

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