

## Advance Dot Net Training Syllabus

**Duration: 4/6 Months**

**Fee: Rs 12,500 only**

**Web Designing Syllabus:(HTML5,CSS3,JavaScript,Jquery,Ajax,Xml,Photoshop) .**

**MS.NET Framework Introduction** ( The .NET Framework - an Overview ,Framework Components , Framework Versions , Types of Applications which can be developed using MS.NET , MS.NET Base Class Library , MS.NET Namespaces , MSIL / Metadata and PE files. , The Common Language Runtime (CLR) , Managed Code , MS.NET Memory Management / Garbage Collection , Common Type System (CTS) , Common Language Specification (CLS) ,Types of JIT Compilers , Security Manager ).

**SYNTAX & DATA TYPES , LANGUAGE FUNDAMENTAL** :(Data type and Control Constructs,Value and Reference Types,Declaring and Initializing Variables,Unicode Characters and Strings,C.T.S(Common Type System) Type,Implicitly Typed Local Variables,Conditional Syntax,C# Operator,Looping Syntax,Structure)

**ARRAY & STRING** :(Arrays in General,Declaring of different type Arrays,Initializing Arrays,Accessing element of different type Array Members,Arrays of Objects,Structure type array,Using foreach with Arrays,Understanding System. String class and its various operations)

**OOPS CONCEPTS CLASSES** :(Encapsulating Attribute,Class & Object Creation,Define Constructor,Type of Constructor,Define Methods and their Type,Overloading Methods and Constructor overloading,Define Property and their Types,The Memory Allocation with New Keyword,Passing Initial Values with Constructor,Invoking Property and Methods)

**INHERITANCE** :(Implementing Inheritance Hierarchies,Class Access Modifiers,Method Overloading, Overriding and Hiding Concepts,Run time polymorphism,Abstract and Sealed Class,Exposing Interface,Implementation Interface in a Class,Play with Namespaces,Interface Polymorphism,Operator Overloading,Partial Class)

**EXCEPTION HANDLING** :(Means of Error, Bug and Exceptions,Role of .Net Exception Handling,System Level Exception,Application Level Exception,Try and Catch Block,Handling Multiple Exception,Finally Block,Throw Exception on Request Custom Exception)

**EVENTS AND DELEGATES**:(Event Driven Programming,Delegate, Event and its association,Synchronous and asynchronous operation with delegate,User Defined events and delegates,Multicasting with Delegates,Anonymous methods,Anonymous Methods with events,Generic Delegates)

**MULTITHREADING** :(Understand multithreading process,The System Threading namespace,The Thread and Thread Start class,Thread life cycle,Thread Safety Concept,Thread synchronization,Understanding Thread Pool,Understanding Role of Thread Background Worker Component)

**I/O OPERATIONS WITH FILE SYSTEMS** :(File and Directory Class,Marshal Classes, File Info and Directory Info,Path Class,Drive Info Class,Stream Object with Files: Stream Reader, Stream Writer,File Stream and Memory Stream)

**INTRODUCTION TO ADO.NET**:(How ADO.NET works and how it differs from ADO?,Evolution of ADO to ADO.NET)

**ADO.NET AND IT'S ARCHITECTURE** :(Connection Object,Command Object,Dataset,Data Reader Object,Data Adapter Object,Concurrency and the Disconnected Data Architecture,Provider)

**DATA SET** :(Creating Tables in Dataset,Data Column,Data Row,Data Table,Updating, Inserting and Modification in Data Table,Saving Changes into Data Base using Command Builder,Working With Command and Connection)

**CONNECTIONS AND COMMAND OBJECT** :(Connection Object,Command Object,Execute Non Query,Execute Scalar)

**DATA READER** :(Reading Data in Connected Environment,Moving and Accessing Value of Record,Execute Reader)

**DATAGRIDVIEW & DATA BINDING** :(Row State Filter and Sort Property,Update records via a Datagridview,Insert records via a Datagridview,Delete records via a Datagridview)

**TRANSACTION** :(Introduction of Transaction (ACID),Transaction Class,Method and Property,Commit and Rollback)

**ASP.NET**

**INTRODUCTION TO WEB FORM** :(Need of Web Application,Http Protocol,Static and Dynamic Page,Concept Working of IIS and Browser,Differences between ASP and ASP.NET)

**INTRODUCTION TO HTML CONTROLS** :(Creating a Simple HTML Page,Html Tags,Hosting a HTML Page,IIS virtual

Directory,Request Transfer Throws Get and Post Methods)

**SERVER PAGES USING ASP.NET** :(Creating sever pages,Architecture of handling request In Web server,Http request object,Http response object,Understanding post back)

**UNDERSTANDING PAGE LIFE CYCLE** :(Understanding of Application Life Cycle,Page Life-cycle Stages,Life-cycle Events,Autoeventwireup,Tracing and debugging asp.net pages

**STATE MANAGEMENT** :(Client side State Management,Introduction of stateless process,Http Cookies,Query String Method,View State,Hidden Field,Server Side State Management,Http Session,Http Application,Global.asax,Web.Config)

**SERVER CONTROL FORM VALIDATION** :(Working with Range, Regular Expression & Compare,Required Field Validator Controls,Use Control to Validate Property,Custom Validator Control,Implementation of Client and Server Side Validation,Working with Validation Summary)

**WEB FORM CONTROL**:(Textbox,Check Box,List Box,Dropdown List Control,Add Rotator Control,File Upload Control,Multi View Control,Login Control,Image control,Radio button control)

**DATA BINDING SERVER CONTROLS** :(Use of Data Binding Control,Type of Data Binding Control (Formatted and Unformatted))

**Working with Grid View Control** : (Data binding with Grid View(Working with Column Collection,Using Paging,Sort), Working with Data List Control(Working with Template,Working with Data List Events)

**MASTER PAGES** :(Introduction and Need of Master Page,Creating a Master Page,Default Contents,Master page with CSS and table layout,Applying Master Page through Configuration File(Dynamic setting a Master Page,Nested Master Page,Master Page and Relative Path)

**ASP.NET WEB SECURITY** : (Windows,Forms,Passport)

**ASP.NET AJAX** :(Introduction of AJAX,Role of script manager,Understanding and working with update panel,Understanding and Working with Update progress control,Understanding and Working with Timer control,Creating AJAX enabled website,Creating an AJAX enabled web service)

**SKIN & THEME** :(Cascading Style Sheets,Scoping Themes,Themes Vs Cascading Style Sheets,Create a Skin,Apply a theme to a Web Site

**MORE DATA BINDING SERVER CONTROLS** :(Working with Form View Control(Working with Template,Working with Form View Events),Working with Details View Control(Working with Template,Working with Details View Events,Understand Event Bubbling))

**.NET REMOTING** :(Introduction of Remoting,Remoting Architecture & scenario,Creating .NET Remoting object,Hosting a Remote Object,Activation type,Singleton,Single call,Creating channels,Implementations of a remote base application)

**WEB SERVICES** :(Introduction of web service,The SOAP architecture,SOAP and Web Service,SOAP Essentials,Wed Service attribute,WSDL Documentations,Disco & Disco Map file,Transaction in web service,Publishing a web service,Consuming a web service)

**ASP.NET CACHING** :(Introduction ,Need ,Type of caching,Page output Caching,Declarative output caching,Time duration and location setting,Parameter caching settings,Page fragment Caching,Time duration setting,Parameter caching Setting,Parameter caching setting,Caching with HTTPCachePolicy Class,Post Cache Substitution & Fragment,Data Caching,Managing Data into cache)

**COLLECTION CLASSES** :(Array list,Hash table,Stack,Queue,Sorted List,Name value Collection,Dictionary Entry structure,Interfaces,ICollection, IList, IEnumerable, IEnumerator, IClonable, IComparable)

**REFLECTION**(System. Reflection namespace,Core reflection classes,Accessing assembly through reflection,Method info,Member info,Property info,Browsing and Querying members,Invoking methods and property and runtime,Reflection on shared assembly)

**ASSEMBLIES & DEPLOYMENT** :(Role of .NET assembly,Building and consume a single file assembly,Building and consume a multi file assembly,Private assembly,Shared assembly,Creating multiple version of a single assembly,Removing .DLL hell problem)

**GLOBALIZATION & LOCALIZATION** :(Introduction of multilingual application,Understanding Culture and UICulture,Setting the UICulture and Culture,Culture Info Class,Overriding Initialize culture,Auto attribute,Local and

Global resources)

**LINQ INTRODUCTION** : (Introduction of LINQ, Understanding Automatic Properties, Understanding Initializers, Understanding Type Inference, Understanding Anonymous Types, Understanding Generics, Understanding Lambda Expressions, Understanding Extension Methods)

**LINQ to SQL** : (Performing standard Database Commands with LINQ to SQL, LINQ to Objects Versus LINQ to SQL, Selecting with LINQ to SQL, Inserting with LINQ to SQL, Updating with LINQ to SQL, Deleting with LINQ to SQL, Dynamic Queries, Debugging LINQ to SQL)

**WINDOWS COMMUNICATION FOUNDATION (W.C.F.)** : (The role of W.C.F, W.C.F project template, Understanding WCF Addressing, Understanding WCF Bindings, Understanding WCF Contracts, Understanding WCF Endpoint, Composition of basic W.C.F, Building a W.C.F service, Hosting a W.C.F service, Building a W.C.F client application)

**WINDOWS PRESENTATION FOUNDATION (W.P.F.)** :

(What is WPF, (Goals, Benefits & Drawbacks), First WPF Application, Types of WPF Application (Windows Based and Browser Based), XAML – Extensible Application Markup Language., Content Models, Brief Introduction to Expression Blend, (Label, Button, CheckBox, RadioButton, RepeatButton, ToggleButton, ToolTip, Expander, GroupBox), (Text Controls, TextBox, TextBlock, RichTextBox, PasswordBox), (List Controls Combo Box, ListBox, Menu, StatusBar, TabControl, Toolbar, TreeView, ListView), (General Controls Progress Bar, Image, Slider, ScrollBar, Rectangle, Ellipse, MediaElement), DataGridView, (Panels, Border, Canvas, Grid, StackPanel, WrapPanel), WPF Data binding, WPF Drawing 2D, WPF Animation)

**SILVER LIGHT** : (Introduction, What is Silverlight?, How to Install Silverlight, What is XAML?, What tools are available?, How does Silverlight compare to Flash?, Silverlight Objects, How to Declare an Object in XAML, How to Set a Property in XAML, Canvas, Shapes: Rectangle, Ellipse, Line, Path, TextBlock, MediaElement, InkPresenter, Object Hierarchy)

**CRYSTAL REPORT** : (Crystal report overview, Getting start with Crystal Report, Creating Basic Report, Working with sub report, Integration with Windows Application, Customizing Appearance and Layout of Report Viewer, Creating XML Report Web service, Working with .Net Data, Adding a Database or Table to a Report, Working with ADO.Net, Formulas and Logic, Report Formatting, Integration with Web Application, Working With Crystal Report Engine)

**MVC 3.0** : (Model-View-Controller and ASP.NET, MVC Architecture, Understanding Routes and URLs, Routing Compared to URL Rewriting, The Controller Class and Actions, Working with Parameters, Working with Multiple Parameters, Specifying a View, Strongly Typed Views, Using HTML Helper Methods)

**SQL Server 2008 DataBase:-Introduction of SQL Server 2008/2012, Data Type , Data Definition Language** – create Database/Table, Drop Database/ Table, Rename Database/Table, **Constraints key**(primary key, foreign key, Not Null, Check, unique, Default), On Cascade Update On cascade Delete, **Data Manipulation Language**-bulk Insert, Update, Delete, select, Truncate, **Where clause operator** – Arithmetic, Relational, Logical, NOT, IN, BETWEENLIKE, ORDER BY, GROUP BY, HAVING, **Use** –As, DISTINCT, EXIST, UNION, INTERSECT, EXPERT, join –Cross join, Inner join, Outer join (Left outer, Right outer, Full outer), Sub Queries (Nested Queries), System stored procedures, System functions, **Sequence, views, Indexing, Triggers-DDL(Database, server), DML**, T-SQL- Stored procedure & Stored Function (Table-valued, Scalar-valued), Cursor, Transaction Control (Begin, Commit, Rollback) & Exception Handling (Try- Catch), Database Security & Integrity, Login – SQL Server Authentication, Permission-Grant, Revoke, Database-Import, Export, Attach, Detach, Scripting.

**Note: Project work is mandatory after the completion of the training program.**