Introduction of Dot Net Framework

- What is Dot Net?
- Why Dot Net?
- Advantages of Dot Net
- Component of Dot Net
- What is Framework?
- Versions of Framework
- CLR architecture
- CTS architecture
- CLS architecture
- DLR architecture
- What is JIT?
- Types of JIT?
- Pre-JIT COMPILER
- Econo-JIT COMPILER
- Normal-JIT COMPILER

Getting Started with Visual Studio

- Understanding Project and Solution Explorer
- Creating a Project and Solution
- Understanding Solution Explorer
- Comments in C#
- Debug Project
- Understanding Execution Process

Assemblies in .Net

- What is Assembly?
- Types of Assembly?
- How to make Private Assembly
- How to make Shared Assembly
- What is DLL HALL Problem?
- What is SN Key?
- What is GAC?
- How to Deploy Assembly in Cache
- What is MSIL?
- What is DLL & EXE?
- How make DLL& EXE.
- Use of Ilasm.exe (IL Assembler) & Use of Ildasm.exe (IL Disassembler).

Object Oriented Programming System (OOPS)

- What is OOPS?
- What is Class & Object?

- Difference b/w Class, struct, interface and enum
- Types of Variable
- Static Variable
- Const Variable
- Read Only Variable
- Instance & Static Members
- Inheritance & Types of Inheritance
- What is Interface?
- Encapsulation
- Abstraction
- Polymorphism
- Types of Polymorphism
  - Static Polymorphism
  - Dynamic Polymorphism
  - Concept of Method Overloading
  - Concept of Method Overriding
  - Concept of Early Binding
  - Concept of Late Binding
  - Concept of Up Casting
- Operator Overloading?
- What is Constructor?
- Types of Constructor
  - Default Constructor
  - Parameterized Constructor
  - Copy Constructor
  - Private Constructor
  - Static Constructor
  - Concept of This Keyword in Constructor
- Abstract Class & Abstract Method
- Static Class & Static Method
- Sealed Class & Sealed Method
- Partial Class & Partial Method
- Different types of Parameter
- Input Type
- Output Type
- Ref Type
- Params Type
- Dynamic Type

C# LANGUAGE FUNDAMENTALS

- Introductions of C#
- What is C#?

- Namespaces in C#?
- Create namespace in C#
- Data types in C#
- Value type
- Reference type
- Null able type
- Heap
- Stack
- Looping in C#
- For,While,Dowhile
- Foreach
- Conditional statement
- Switch case
- If, if-else, Nested if
- GoTo
- Break
- Continue
- Convertion Types
- Implicit {Boxing}
- Explicit {UnBoxing}

Array

- What is Array?
- Types of Array
- Simple Array
- Multi Array
- Jagged Array

File Handling

- Introductions of File Handing
- Working with Files and Directories
- Working with Directories
- Working with Files Using the File and FileInfo Classes
- Working with Directories Using the Directories and Directories Info Classes

Exception Handling

- Introductions of Exception Handling
- Role of Exception Handling
- What is Error, bug and exceptions?
- Try, catch & Finally block
- System Level & Application Level Exception
- Handel Multiple Exception
- Throw Exception

Software Engineering Models and Concept (Project Based)

- What is Software Development Life Cycle?
- Phases of a SDLC
- Project initiation and planning
- Feasibility study
- System design
- Coding
- Testing
- Implementation
- Maintenance

Collections

- Introductions of Collections
- Types of collections
- Generic
- List
- Dictionary
- Stack
- Queue
- Non Generic
- ArrayList
- HashTable
- Stack
- Queue

Delegate

- Introductions of Delegate
- Types of delegate
- SingleCast
- MultiCast
- Generic delegate

Events

- Introductions of Events
- Understanding Events and Event Handler
- Types of Event
- System Define Event
- User Define Event
- Event Life Cycle
- Binding Events
- Working with Event Handler

Reflection

- lIntroductions of Reflection
- Reflection Namespace
- Reflection Classes
- Access Assembly through Reflection
- Member Info
- Method Info
- Property Info
- Constructor Info
- Browsing Members
- Runtime Information

Threading

- Introductions of Threading
- Threading Namespace
- Understanding Thread LifeCycle
- Default Threading
- Multi Threading
- Priority in threading Member Info

Introductions of Properties

- set
- get
- Indexer
- Define Indexer
- Advantages of Indexer

Business Requirement Specification (Project Based)

- Objective of Project
- DFD
- UML Diagram
- Class Diagram
- ER Diagram

The SQL Server Management

- What is SQL?
- What is Database?
- Create Statement
- Create database
- Create table
- Use Identity
- Select Statement
- Insert statement
- Update statement

- Delete statement
- Drop statement
- Truncate statement
- Difference between delete, drop & truncate
- Alter Query
- Clauses
- lGroup By
- lOrder By
- lBasic Queries
- lStored Procedure
- lUse Input and Output Type parameter in Stored Procedure
- lFunction
- lTypes of Functions
- lTrigger
- lCursor
- lUnion & Union All
- lTransaction
- lJoins
- lIndexes
- lViews
- lConstraints
- lTracing sql query with SqlProfiler
- System Requirement Database Structure (Project Based)
- lDatabase Table Structure
- lDatabase Design
- lDDL
- lDML
- lStored Procedure
- lDatabase Security

ADO .NET 10

- What is ADO.NET?
- Difference between ADO & ADO.NET?
- Architecture of ADO.NET
- Disconnected mode Architecture
- Using SqlDataAdapter Class
- Using DataSet Class
- SqlCommandBuilder Class
- Connected Mode Architecture
- Using SqlConnection Class
- Using SqlCommand Class

- Using SqlDataReader Class
- Understanding ExecuteNonQuery method
- Understanding ExecuteScalar method
- Uunderstanding ExecuteReader method
- Working with DataTable class
- Creating PrimaryKey Column on VirtualTable
- Using Constraints Class
- ForeignKeyConstraints Class
- UniqueConstraints Class
- Store table in datatable
- Apply Insert,update,delete operations on VirtualTable
- Show, next,first,last,all by datatable
- Executing Stored Procedure
- Executing Function
- What is Sql Injection
- Applying SqlInjection

ASP.NET 4.6 Framework

- Asp.Net Introduction
- Evolution of Web Development
- ASP .NET different versions
- Understanding protocol and domain

Understanding static & dynamic page

- Server-side programming
- Client-side programming
- HTML and HTML Forms
- Creating a simple html page
- Developing ASP.NET Applications
- Creating Websites
- Creating a New Web Application
- Page Life Cycle
- Understanding Events of Page Life Cycle
- Websites and Web Projects
- Adding Web Forms
- Migrating a Website from a Previous Version
- Difference b/w inline and code behind concept

Asp.Net special directory

- What is Application Directories
- Different types of Application Directories
- Understanding application label and page label variable
- Need of Global class

- What is Configuration file?
- Need of Configuration file
- Difference b/t app.config & web.con file
- Nested Configuration

State Management

- Need of state management technique
- Types of state management
- Understanding Server side and Client side state management
- ViewState
- HiddenField
- Cookies
- Cache
- QueryString

Session

- Session Tracking
- Session Configuration
- Session mode
- Cookieless
- Session Timeout
- Session Mode
- Application
- Transferring Information between Pages
- Transferring Information between Cross Pages
- Web Controls in ASP.Net
- Types of web controls
- Server Controls
- Standard Controls
- Data Controls
- Validation Controls
- Navigation Controls
- Login Controls
- Ajax Extensions
- Ajax ToolKit
- Html Controls
- User Controls
- Data Controls
- DataList
- DetailsView
- FormsView
- GridView

- ListView
- Repeater
- DataGrid
- EntityDataSource
- Object DataSource
- LinqDataSource
- XmlDataSource
- Working with Templates of Data Controls
- Working with events of Data Controls
- CSS
- Understanding CSS
- Types of CSS
- Inline CSS
- Internal CSS
- External CSS
- Selectors in CSS
- Themes & Skins
- Working with Image gallery
- Working with ImageSlide
- Master Page
- Nested Master Page
- Page Tracing
- Mail & Messaging
- Caching Techniques
- Understanding Caching
- Types of Caching
- Output Caching
- Data Caching
- Web Security
- Need of security
- Types of security
- Forms Authentication
- Windows Authentication
- Confidentiality with SSL
- Password Format
- Types of password format
- MD5
- SHA1
- Clear
- Performance tuning

- Ajax
- Understanding Gmail,Facebook and Twitter API's
- Deploying ASP.NET Applications
- ASP.NET Applications and the Web Server
- How Web Servers Work
- Understanding Virtual Directory
- Web Application URLs
- Web Farms
- Internet Information Services (IIS)
- Installing IIS
- Registering the ASP.NET File Mappings
- Verifying That ASP.NET Is Correctly Installed
- Managing Websites with IIS Manager
- Creating a Virtual Directory
- Configuring a Virtual Directory
- Deploying a Simple Site
- Web Applications and Components
- Other Configuration Steps
- Code Compilation
- Verifying That ASP.NET Is Correctly Installed
- Deploying a Visual Studio IDE
- Creating a Virtual Directory for a New Project
- Copying a Website
- Publishing a Website
- Verifying That ASP.NET Is Correctly Installed

Technical Design & Development (Project Based)

- Working with Project
- Programming Language: C# (Asp.Net)
- Designing Tools
- HTML
- Using CSS
- Using Ajax
- Using JavaScript

<div align="center">

ADVANCE .NET

</div>

Introduction to LINQ

- What is linq?
- Limitation of linq
- Sorting Data
- Filtering Data
- Grouping Data

- Joining Data
- Set Operations
- Datacontext in linq
- Select data by linq
- Perform dml by linq
- Stored procedure by linq?
- Linq with dataset
- Linq query expression
- Linq with generic & non generic collection

Entity Framework 6.0

- Overview of the Entity Framework
- Difference between Linq to sql and Entity Framework
- Learn how to create an Entity Data Model
- Conceptual schema definition languages (CSDL)
- Store schema definition languages (SSDL)
- Mapping specification language (MSL)
- Techniques for using LINQ to Entities to query data in SQL Server database
- Creating/Managing 1-Many and many-1 relations
- Associations & Foreign Keys
- Procedure Mapping
- Mapping object to Data

Introduction To WCF

- What is Distributed Application
- Evolution of WCF
- Evolution of Service Oriented Architecture (SOA)
- Four Tenets of SOA
- What is WCF.
- Where does WCF Services fit in?
- WCF comparison with WebServices and
- .Net Remoting.

Endpoints in WCF

- What is Endpoint in WCF
- End points in Configuration File.
- ABC - Address, Binding & Contract of the service in Configuration File.
- Understanding importance of base address

Importance of IMetadataExchange

- Contract / Endpoint.
- IMetadataExchange Contract/Endpoint for Http and tcp.
- Configuring service behavior in configuration file
- WCF Service Configuration Editor

- Creating Endpoints through Code

Developing WCF Service Application

- Hosting WCF Service in IIS/ASP .NET Development Server
- Hosting WCF service in Managed Application(Self Hosting).
- Use of WCF Service Library Project.
- Use of Wcf Service with Entity Framework

Understand Contracts in WCF service

- ServiceContract.
- OperationContract.
- DataContract
- Fault Contract
- Message Contract

Understand Instancing behavior in WCF service

- Single
- PerCall
- PerSession

MVC 5 (Model View Controller) Getting Started

- What is MVC
- Life cycle of MVC
- The MVC Pattern
- The Road to MVC

Models

- Scaffolding
- What Is Scaffolding
- Scaffolding and the Entity Framework
- Executing the Scaffolding Template
- Executing the Scaffolding Code
- Editing
- Building a Resource to Edit
- Responding to the Edit POST Request
- Model Binding
- The DefaultModelBinder
- Explicit Model Binding

Views

- The Purpose of Views
- View Basics
- Understanding View Conventions
- Strongly Typed Views
- How View Bag Falls Short
- Understanding View Bag, View Data, and TempData

- View Models
- Adding a View
- The Razor View Engine
- What Is Razor
- HTML Encoding
- Code Blocks
- Razor Syntax Samples
- Layouts
- View Start
- Specifying a Partial View

Forms & Html Helpers

- Using Forms
- The Action and the Method
- To GET or to POST?
- HTML Helpers
- Automatic Encoding
- Making Helpers Do Your Bidding
- Inside HTML Helpers
- Adding Inputs
- Helpers, Models, and View Data
- Strongly Typed Helpers
- Helpers and Model Metadata
- Templated Helpers
- Helpers and ModelState
- Other Input Helpers
- Html.Hidden
- Html.Password
- Html.RadioButton
- Html.CheckBox
- Rendering Helpers
- Html.ActionLink and Html.RouteLink
- URL Helpers
- Html.Partial and Html.RenderPartial
- Html.Action and Html.RenderAction

Data Annotations & Validations

- Annotating Orders for Validation
- Using Validation Annotations
- Controller Actions and Validation Errors
- ValidatableObject
- Display and Edit Annotations

- Display
- Scaffold Column
- Display Format

Controllers

- Controllers, Actions, and Action Results
- Routing to Controller Actions
- Working with the Application Model

Routing

- Introduction to Routing
- Comparing Routing to URL Rewriting
- Routing Approaches
- Defining Attribute Routes
- Defining Traditional Routes
- Choosing Attribute Routes or Traditional Routes
- Named Routes
- MVC Areas
- Catch-All Parameter
- Multiple Route Parameters in a Segment
- StopRoutingHandler and IgnoreRoute
- Debugging Routes
- Inside Routing: How Routes Generate URLs

Bootstrap Introduction

- Responsive app,layouts
- Components
- Developing site with bootstrap

Interview Preparation :

- Technical Interview Preparation
- Mock interview Preparation
- HR Session