**C#.Net**

**Introduction To .Net**

* What is .Net?
* .Net platform independent or not
* .Net Framework
* CLR(Common Language Runtime)

.CLS(Common Language Specification)

.CTS(Common Type System)

.GC(Garbage Collector)

.JIT(Just In Time

* BCL(Base Class Libraries) or
* FCL(Framework Class Libraries)

**Introduction To C#.Net**

* Features of C#.Net
* Data Types in C#.Net
* Value Types and Reference Types
* Boxing and Unboxing
* Console Applications
* Console Class Methods
* Conditional and Looping control statements
* Arrays

.Single Dimensional Array

.Two Dimensional Array

.Jagged Array

.Array Class Methods

.Array Properties

* Functions
* Pointers
* Structures
* Enumerations

**Object Oriented Programming(OOP)**

* OOP Features

.Class and Object

.Encapsulation

.Abstraction

.Polymorphism

.Inheritance

* Access Modifiers

.Private

.Protected

.Internal

.Protected Internal

.Public

* Creating Classes
* Creating Fields, Properties and methods in class
* Constructors
* Types of Constructors

.Instance and Non Instance

* Destructors
* Method Overloading
* Method Overriding
* Abstract Methods and Abstract Classes
* Polymorphism

.Compile Time Polymorphism

.Run Time Polymorphism

* Abstraction

.Properties

.Types of Properties

.Readonly Property

.Writeonly Property

.Readwrite Property

.Accessors(set and get)

* Sealed Classes
* Partial Classes
* Keywords new, this, base
* Interfaces
* Delegates
* Types of Delegates

.Single Cast delegate

.Multi Cast delegate

* Generics

.Generic Methods

.Generic Classes

.Constraints on Generics

* Exception Handling

.Types of Errors

.Syntactical Errors

.Compilation Errors

.Runtime Errors

* Exception Handling Mechanism

.Logical Implementation

.Try Catch Implementation

**Class Libraries and Assemblies**

* Creating User defined Class Library
* Assemblies

.Types of Assemblies

.Private

.Public or Global or Shared Assembly

.GAC(Global Assembly Cache)

**Windows Forms**

* Introduction
* Forms and Controls
* Properties and Methods
* Basic Controls: Textbox,button,label,checkbox,Radiobutton,Listbox,Combobox,Timer,Richtextbox
* Dialog Controls: Open File Dialog, Save File Dialog, Font Dialog, Color Dialog
* Menus and Toolbars: Menu strip, Context Menu strip
* Container Controls: Group box, Panel, Tab Container
* SDI(Single Document Interface) Forms
* MDI(Multiple Document Interface) Form
* User Controls
* Windows Forms Control Library

**ADO.Net**

* Introduction
* ADO.Net Data Providers

.SqlClient

.OracleClient

.OLEDB

.ODBC

* ADO.Net Architecture

.Connected Architecture

.Disconnected Architecture

* Stored Procedures
* Types of Stored Procedures
* Calling Stored Procedures using ADO.Net
* Objects in ADO.Net

.Connection

.Command

.Parameter

.DataReader

.DataAdapter

.Dataset

* Implementing 3-Tier Architecture

**Crystal Reports**

* What is Report?
* Creation of Simple Report
* Steps to Create Reports
* Creating Reports with chart