

.NET Course Structure

C#.NET

Introduction to .NET Framework

- .NET Framework
- OverView
- CLR,CLS
- MSIL
- Assemblies
- NameSpaces
- .NET Languages
- Dll's(Vs)Exe's

Basics:

- Getting Started
- Using Variables and Arrays
- Methods and Parameters
- Decision Structures and Loops
- Handling Errors and Exceptions

OBJECT ORIENTED PROGRAMMING

- Classes, structures and enums
- Constructors
- Destructors
- Properties
- Inheritance
 - Shadowing(new methods)
 - Overriding
- Method Overloading
- this and base Keyword
- Sealed classes
- Interfaces, Abstract Classes
- Working with Delegates
- Designing and Implementing Events
- Generics
- Sealed classes and Partial classes
- C#.NET Application Architecture
- Solution, Projects

- Compiling, Debugging and Running in IDE

INTRODUCTION TO GUI PROGRAMMING

- System.Windows.Forms Assembly
- System.Drawing
- The Form Class
- Win Forms
- Visual Inheritance
- Programming with Controls
- User Controls

WORKING WITH COLLECTIONS, IO

System.IO

- Readers and Writers
- Streams

System.Collections

- Hashtable
- ArrayList

SERIALIZATION

Formatters

- Binary Serialization
- Formatters, Binary Formatter
- SOAP Serialization
- XML Serialization

ADO.NET I:

- Introduction
- Architecture
- System.Data.Dll
- System.Data.OleDb
- System.Data.SqlClient
- Data Readers
- Command Object

- Procedure Execution (PL/SQL)

ADO.NET II : Data Adapters and DataSets

- Data Tables
- Data Relations
- Data Views

ASSEMBLIES

- Strong Names
- GAC
- Private and Shared Assemblies
- SFA
- MFA

MULTITHREADING

- Threading Introduction
- System.Threading NameSpaces
- Thread Members
- Thread States

GUI PROGRAMMING CRYSTAL REPORTS WITH .NET

VB.NET

Overview of .NET

- Drawbacks of the Existing System
- Why .NET came into picture
- Difference between Java and .NET
- .NET Framework Architecture
- Versions of .NET Framework

Visual Basic .NET

- Disadvantages of Visual Basic
- Programming in VB .NET
- Operators
- Conditional Statements
- Arrays

OOPS

- Abstraction
- Encapsulation
- Constructors
- Inheritance
- Overloading Methods and Constructors
- Abstract Classes
- Interfaces
- Assemblies
- Access Specifiers

Exception Handling

- What is Exception
- Error Handling
- Using Try, Catch, Finally and Throw
- Defining our own exception classes
- Debugging the Application

Windows Programming

- Understanding Windows Programming
- Class Hierarchy
- Using Various Windows Components

ADO .NET

- Client Server Architecture
- Understanding Drivers and Providers
- ADO .NET Architecture
- Using OLEDB Providers
- Data Readers
- Using Oracle and SQL Server Managed Providers
- Disconnected Architecture with Data sets
- Data controls
- Data Table and Data View difference and usage
- Invoking Stored Procedures

Assemblies

- Why Assemblies
- Disadvantages of Com
- Architecture of Assemblies
- Creating Private and Shared Assemblies
- Deploying Shared Assemblies in GAC

Custom Windows Controls (User Controls)

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- Creating and Using them in other applications
- Defining properties to controls using Property Procedures
- Defining Events to controls and invoke them

Multithreading

- Difference between Multitasking and Multithreading
- Advantages of Multithreading
- Creating Multiple threads in application
- Thread Synchronization

Windows Services

- Understanding Windows Services
- Creating Windows Services
- Installing and Uninstalling Windows services

.NET Remoting

- Understanding Distributed Architecture
- Drawbacks of DCOM
- Remoting Advantages
- Remoting Vs web services

- Creating & Using Remote Applications

Crystal Reports

- Designing and Invoking Crystal Reports
- Datasets and Crystals Reports

ASP.NET

ASP.NET

- Basics
- Web Programming
- HTML, DHTML
- JavaScript
- IIS
- ASP

ASP.NET INTRODUCTION

- Difference Between ASP and ASP.NET
- Architecture
- Inline Technique & Code-Behind Technique
- Code Render Blocks
- Server Controls
- Page Basics, Page lifecycle
- Post back Request
- View State, Directives

PROGRAMMING WITH SERVER CONTROLS

- Html Server Controls
- Web Server Controls
- Basic Web Controls
- List Controls, Data Controls
- Adv Controls, User Controls

CUSTOM CONTROL Development

THEMES AND SKINS

MASTERPAGES AND SITE NAVIGATION

ADO.NET PROGRAMMING

- Architecture
- DataReaders and DataSets
- Command Object
- Transaction Programming
- Procedure Execution
- Data Adapter and Data Set
- Data Tables
- Data Relation
- Data Views
- Updating Dataset

ADO.NET AND ASP.NET

- Working with Data Controls
- GridView
 - Inserting, Updating, Deleting
 - Sorting in Data Grid
 - Paging in Data Grid
- DataSource Controls
- Dataset
- DetailsView
- FormView
- Data List
- Repeater Control
- Crystal Reports

XML PROGRAMMING

XML

- DTDs & XSDs
- Parsers
- SAX Model
- DOM Model
- XML Programming in .Net
- XML Readers
- XML Serialization

STATE MANAGEMENT WITH ASP.NET

- Context
- View State
- Cookie State
- Session State
- Session Tracking
- Application Object
- Session and Application Events

ASP .NET APPLICATION TUNING

- Machine.Config & Web.Config.
- App Setting
- Compilation Settings
- Custom Error Settings
- Session State Settings
- InProcess & OutProcess Session States
- State Server & SQL Server
- Cookieless Session State
- Application and Global.ASAX

CACHING

- Introduction to Caching
- Types of Caching
- Page Caching
- Diff. between Webuser Controls & Custom Controls
- Page fragmentation Caching
- Data Caching
- Data Caching – Application Object

TRACING

- Page Level
- Application Level

SECURITY

- Authentication & Authorization
- Windows Authentications
- Forms Authentications
- Passport Authentications
- Memberships

WEB SERVICES

- Architecture
- WSDL, SOAP, UDDI
- Publishing and Consuming Web Services
- Web Client
- Windows Client
- Caching Web Services
- Security in Web Services

WEBPARTS

- Webpart Manager
- Zone Types

Overview of Advanced .NET Technologies

- ASP.NET-AJAX
- WPF
- WCF
- Silverlight