

Microsoft .Net Technologies

C#.NET (ADVANCED PROGRAMMING LinQ, WCF and WPF) – Total = 78 Hours

MICROSOFT .NET OVERVIEW

1Hr

1. Why .Net?
2. Introduction to .Net Framework
3. Basic functionality of CLR
4. MSIL
5. CTS &CLS
6. .Net Languages
7. System Requirements

C#-THE LANGUAGE

1Hr

1. Writing Programs in C#
2. Compiling and executing from command prompt
3. Conditional statements
4. Loops
5. Structures
6. Introduction to assemblies and namespaces
7. Base class Libraries
8. Datatypes
9. Boxing and Un-Boxing
10. Array
11. Collections

OBJECTS ORIENTED PROGRAMMING

3Hr

1. Structure Vs Class
2. Access Specifier
3. Properties
4. Method Overloading
5. Operator Overloading
6. Constructors
7. Shared Modifiers
8. Inheritance
9. Overloading and Overriding
10. THIS' Keyword
11. Sealed class
12. Interface
13. Polymorphism
14. Early-binding and Late-binding
15. Destructors

MEMORY MANGEMENT

1Hr

1. Garbage Collector
2. Stack and Heap
3. System.GC class

EXCEPTION HANDLING

2.15 Hrs

1. System defined exceptions
2. Custom exceptions
3. Try, Catch and Finally structure
4. Throwing exceptions

GUI APPLICATION DEVELOPMENT

3Hr

1. Introduction to "system.Windows.Form.DLL"
2. Basic Controls rich text box, dialog
3. Boxes and toolbars
4. Working with context menus
5. Main menu and MDI form
6. Visual Inheritance

WINDOWS CONTROL LIBRARY

2 ½ Hr

1. Creating user controls
2. Creating custom controls
3. Creating user controls by extending and existing controls

DELEGATES

1Hr

1. Introduction to delegate concepts
2. Even handling architecture with delegate

DATA ACCESS WITH ADO.NET

3 Hr

1. Introduction to data access,libraries and DAO
2. RDO and ADO
3. Drawback of ADO
4. ADO.NET managed data providers
5. Introduction to system.Data.Oledb
6. Datareader
7. Introduction to System.data sqlclient
8. Prepared statement
9. Transaction Handling
10. Introduction to System.Data.OracleClient
11. Dataset and DataAdapter
12. Databinding
13. Datagrid programming
14. Dataview
15. Datarelation

ADVANCED CONCEPTS MULTI THREADING

1Hr

1. Thread class
2. Sleep, suspend and resuming thread
3. Asynchronous connection
4. Synchronization of thread

ASSEMBLIES

1 ½ Hr

1. Introduction to COM architecture
2. Disadvantage of COM
3. Introduction to assemblies
4. Private Vs shared Assemblies
5. Creating private assembly
6. Probing and preparing configuration file
7. Strong name utility
8. Creating shared assembly
9. CLR Architecture
10. Native generator utility
11. Assembly versioning
12. Compatibility of assembly
13. Configuration file for shared assembly

WINDOWS SERVICES

2Hr

1. Introduction to window services
2. Creating your own windows services

VB

MICROSOFT .NET OVERVIEW

1Hr

1. Why .Net?
2. Introduction to .Net Framework
3. Basic functionality of CLR
4. MSIL
5. CTS &CLS
6. .Net Languages
7. System Requirements

INTRODUCTION TO VB.NET

1Hr

1. Features of VB.Net
2. Writing Programs in VB.Net
3. Compiling and executing from command prompt
4. Introduction to assemblies and Namespaces
5. Base class Libraries
6. Data types
7. Option statements
8. Boxing and un-boxing
9. Array
10. Sub programs

INTRODUCTION TO VISUAL STUDIO .NET

2Hr

1. VS 6.0 vs. VS.NET
2. File structure created by VS.Net application
3. Types of projects
4. Creating Demo console application

OBJECT ORIENTED PROGRAMMING

3Hr

1. Structure Vs Class
2. Access
3. Properties
4. Method Overloading
5. Constructors

6. Shared modifiers
7. Inheritance
8. Overloading & Overriding
9. My Base' Keyword
10. Shadowing abstract class
11. Interface Polymorphism Early-binding and Late-binding Destructor and Garbage collector

GUI APPLICATION DEVELOPMENT

3Hr

1. Basic controls and event driven programming
2. Advance controls rich textbox, dialog
3. Boxes, toolbar
4. Working with context menus
5. Main menu and MDI form
6. Visual Inheritance

WINDOWS CONTROL LIBRARY

2 ½ Hr

1. Creating User controls
2. Creating custom controls
3. Creating Custom Controls

DELEGATES

1Hr

1. Introduction to delegate concept
2. Event handling architecture with delegate
3. Handlers, Add handler and Remove handler

ASSEMBLIES

2 ½ Hr

1. Introduction to COM Architecture
2. Disadvantages of COM
3. Introduction to assemblies
4. Private Vs shared Assemblies
5. Creating private assembly
6. Probing and preparing configuration file
7. Strong name utility
8. Creating shared assembly
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DATA ACCESS WITH ADO.NET

3Hr

1. Introduction to data access libraries, DAO
2. RDO and ADO
3. Drawback of ADO
4. ADO.net managed data providers
5. Introduction to System.Data.OleDb
6. Data reader
7. Introduction to system.Data.SqlClient
8. Prepared statement
9. Transaction handling
10. Introduction to system.Data.OracleClient
11. Dataset and DataAdapter
12. Databinding
13. Datagrid programming
14. DataView
15. Data relation

ADVANCED CONCEPTS

MULTI-THREADING

1Hr

1. Thread class
2. Sleep. Suspend and resuming thread
3. Asynchronous connection
4. Synchronization of thread

WINDOWS SERVICES

1.15Hr

1. Introduction to Windows services
2. Creating your own windows services

ASP.NET

WEB TECHNOLOGIES

1Hr

1. HTML
2. Server side scripting languages
3. Client side scripting languages

ASP.NET

1.30Hr

1. ASP Vs ASP.NET
2. What is ASP.NET
3. IIS Architecture
4. Post back technique
5. Event driven programming support
6. Page life cycles
7. Code behind Technique

CONTROLS

2Hr

1. Client side controls
2. Server side controls
3. Data controls
4. User controls
5. Custom controls
6. Inline coding in controls
7. Validation controls

VALIDATION CONTROL

1.30Hr

1. RequiredFieldValidation Control
2. CompareValidator Control
3. RangeValidator Control
4. RegularExpressionValidator Control
5. CustomValidator Control

STATE MANAGEMENT

4Hr

1. Cookies
2. Session state
3. Application state
4. View state
5. Maintaing Viewstate in page and controls
6. About global.aspx page
7. Scope of viewstate,session and application variables
8. Writing Session and Application events

CACHING

1Hr

1. Importance of caching
2. Output caching or page caching
3. Fragment caching Data caching

ASP.NET CONFIGURATION

1Hr

1. WEB.CONFIG File
2. Compilation settings
3. Custom error settings
4. Application settings

ADO.NET

5Hr

1. Data Providers
2. Data binding with data controls
3. Programming with data grid
4. Programming with data repeater
5. Programming with Data list
6. Programming with Data view
7. Inline coding supports in page and data controls

ASP.NET TRACING

SECURITY IN ASP.NET

1Hr

1. Authentication
2. Authorisation
3. Authentication modes

ADVANCED PROGRAMMING

XMLPROGRAMMING

1Hr

1. Introduction to XML
2. Creating and reading XML document
3. XML parsers
4. Data transformation using XML

WEB SERVICES

3Hr

1. What is Web service
2. WSDL Utility
3. Session state with Web services
4. Caching with Web services
5. Proxy with Asynchronous methods
6. Securing Web Services
7. SSL
8. SOAP Headers

CRYSTAL REPORTS

2Hr

1. SSRS (SQL Server Reporting Services)
2. MS-Reports

LINQ: NET Language-Integrated Query**4Hr**

1. NET Language-Integrated Query
2. Getting Started with Standard Query Operators
3. Language Features Supporting the LINQ Project
4. More Standard Query Operators
5. Query Syntax
6. LINQ to SQL: SQL Integration

WCF: Windows Communication Foundation**5Hr**

1. What Is Windows Communication Foundation?
2. Fundamental Windows Communication Foundation Concepts
3. Windows Communication Foundation Architecture
4. Guide to the Documentation

WPF: Windows Presentation Foundation**5Hr**

1. Getting Started (WPF)
2. Application Development
3. WPF Fundamentals
4. Accessibility
5. Controls
6. Data

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