

M4.1-R4: .NET FRAMEWORK AND ASP.NET USING C#M

Objective of the Course

Outline of Course

S. No.	Topic	Minimum number of hours
1.	The .NET framework	
2.	C# Basics	
3.	C# Using Libraries	
4.	Advanced Features Using C#	
5.	ASP.NET 2.0	
6.	Introduction to Programming with Visual Basic.NET	
7.	File and Database Applications	
8.	Advanced Programming Constructs	
9.	.NET Architecture and Advanced Tools	
	Lectures	=
	Practical/tutorials	=
	Total	=

Detailed Syllabus

1.The .NET framework

Introduction, Common Language Runtime, Common Type System, Common Language Specification, The Base Class Library, The .NET class library Intermediate language, Just-in-Time compilation, garbage collection, Application installation & Assemblies, Web Services, Unified classes.

2.C# Basics

Introduction, Data Types, Identifiers, variables & constants, C# statements, Object Oriented Concept, Object and Classes, Arrays and Strings, System Collections, Delegates and Events, Indexes Attributes, versioning.

3. C# Using Libraries

Namespace-System, Input Output, Multi-Threading, Networking and Sockets, Data Handling, Windows Forms, C# in Web application, Error Handling.

4. Advanced Features Using C#

Web Services, Windows services, messaging, Reflection, COM and C#, localization. Distributed Application in C#, XML and C#, Unsafe Mode, Graphical Device Interface with C#, Case Study (Messenger Application).

5. ASP.NET 2.0

Features of ASP.NET 2.0, Stages in Web Forms Processing, Introduction to Server Controls, HTML Controls, Validation Controls, User control, Data Binding Controls, Configuration, Personalization, Session State, ADO.NET

VB.NET programming language

6. Introduction to Programming with Visual Basic.NET

- Basic Concepts and a Simple Application
- Using Variables, Constants, Functions
- Processing Decisions
- Looping Structures and Lists

7. File and Database Applications

- File Access, Dialog Boxes, Error Handling, Menus
- Connecting to Databases

8. Advanced Programming Constructs

- Sub Procedures, Function Procedures, Modules
- Arrays, Structures, Collections

9. .NET Architecture and Advanced Tools

- Object-oriented Programming
- Creating Distributed Web Applications
- XML and ADO.NET
- Graphics, Printing, Reporting

RECOMMENDED BOOKS

MAIN READING

1. Shibi Panikkar and Kumar Sanjeev, "C# with .NET Frame Work", Firewall Media.
2. Schildt, "C#: The Complete Reference", TMH

SUPPLEMENTARY READING

1. Jeffrey Richter, "Applied Microsoft .Net Framework Programming", (Microsoft)
2. Fergal Grimes, "Microsoft .Net for Programmers", (SPD).
3. TonyBaer, Jan D. Narkiewicz, Kent Tegels, Chandu Thota, Neil Whitlow, "Understanding the .Net Framework", (SPD)
4. Balagurusamy, "Programming with C#", TMH