

Program: C#.Net (Basic with advance)  
Duration: 50hrs.

## C#.Net

### OVERVIEW

Strong Programming Features of C#

### ENVIRONMENT

The .Net Framework  
Integrated Development Environment (IDE) for C#

### PROGRAM STRUCTURE

Creating Hello World Program  
Compiling and Executing the Program  
C# Keywords

### BASIC SYNTAX

The using Keyword  
The class Keyword  
Comments in C#  
Member Variables  
Member Functions  
Instantiating a Class  
Identifiers  
C# Keywords

### DATA TYPES

Value Type  
Reference Type  
Object Type  
Dynamic Type  
String Type  
Pointer Type

### TYPE CONVERSION

C# Type Conversion Methods

## VARIABLES

Defining Variables  
Initializing Variables  
Accepting Values from User  
Lvalue and Rvalue Expressions in C#

## CONSTANTS AND LITERALS

Integer Literals  
Floating-point Literals  
Character Constants  
String Literals  
Defining Constants

## OPERATORS

Arithmetic Operators  
Relational Operators  
Logical Operators  
Bitwise Operators  
Assignment Operators  
Miscellaneous Operators  
Operator Precedence in C#

## DECISION MAKING

if Statement  
if...else Statement  
The if...else if...else Statement  
Nested if Statements  
Switch Statement  
Operator  
LOOPS  
While Loop  
For Loop  
Do...While Loop  
Nested Loops  
Loop Control Statements  
Infinite Loop

## ENCAPSULATION

Public Access Specifier  
Private Access Specifier  
Protected Access Specifier  
Internal Access Specifier

## **METHODS**

Defining Methods in C#  
Calling Methods in C#  
Recursive Method Call  
Passing Parameters to a Method  
Passing Parameters by Value  
Passing Parameters by Reference  
Passing Parameters by Output

## **ARRAYS**

Declaring Arrays  
Initializing an Array  
Assigning Values to an Array  
Accessing Array Elements  
Using the foreach Loop  
C# Arrays  
Multidimensional Arrays  
Two-Dimensional Arrays  
Passing Arrays as Function Arguments  
Array Class

## **STRINGS**

Creating a String Object  
Properties of the String Class  
Methods of the String Class

## **STRUCTURES**

Defining a Structure  
Features of C# Structures  
Class versus Structure

## **ENUMS**

Declaring enum Variable

## **CLASSES**

Defining a Class  
Member Functions and Encapsulation  
C# Constructors

C# Destructors  
Static Members of a C# Class

## **INHERITANCE**

Base and Derived Classes  
Initializing Base Class  
Multiple Inheritance in C#

## **POLYMORPHISM**

Static Polymorphism  
Dynamic Polymorphism

## **OPERATOR OVERLOADING**

Implementing the Operator Overloading  
Overloadable and Non-Overloadable Operators

## **INTERFACES**

Declaring Interfaces

## **NAMESPACES**

Defining a Namespace  
The using Keyword  
Nested Namespaces

## **PREPROCESSOR DIRECTIVES**

Preprocessor Directives in C#  
The #define Preprocessor  
Conditional Directives

## **REGULAR EXPRESSIONS**

Constructs for Defining Regular Expressions  
Character Escapes  
Character Classes  
Grouping Constructs  
Quantifier  
Backreference Constructs  
Alternation Constructs  
Substitution

Miscellaneous Constructs  
The Regex Class

## EXCEPTION HANDLING

Exception Classes in C#  
Handling Exceptions  
Creating User-Defined Exceptions  
Throwing Objects

## FILE I/O

C# I/O Classes  
The FileStream Class  
Advanced File Operations in C#  
Reading from and Writing to Text Files  
The StreamReader Class  
The StreamWriter Class  
Reading from and Writing into Binary files  
The BinaryWriter Class  
Windows File System  
The DirectoryInfo Class  
The FileInfo Class

## ATTRIBUTES

Specifying an Attribute  
Predefined Attributes  
AttributeUsage  
Conditional  
Obsolete  
Creating Custom Attributes  
Constructing the Custom Attribute  
Applying the Custom Attribute

## PROPERTIES

Accessors  
Abstract Properties

## DELEGATES

Declaring Delegates  
Instantiating Delegates

Multicasting of a Delegate  
Using Delegates

## **EVENTS**

Using Delegates with Events  
Declaring Events

## **COLLECTIONS**

ArrayList Class  
Hashtable Class  
SortedList Class  
Stack Class  
Queue Class  
BitArray Class

## **GENERICS**

Features of Generics  
Generic Methods  
Generic Delegates

## **ANONYMOUS METHODS**

Writing an Anonymous Method

## **UNSAFE CODES**

Pointers  
Retrieving the Data Value Using a Pointer  
Passing Pointers as Parameters to Methods  
Accessing Array Elements Using a Pointer  
Compiling Unsafe Code

## **MULTITHREADING**

Thread Life Cycle  
Properties and Methods of the Thread Class  
Creating Threads  
Managing Threads  
Destroying Threads

Program: ASP.Net 3.5 with ADO.Net & RDBMS  
Duration: 50hrs.

## INTRODUCTION

About ASP.NET  
ASP.NET Web Forms Model  
The ASP.NET Component Model  
Components of .Net Framework 3.5

## ENVIRONMENT SETUP

The Visual Studio IDE  
Working with Views and Windows  
Adding Folders and Files to your Website  
Projects and Solutions  
Building and Running a Project

## HTML SERVER

Advantages of using HTML Server Controls

## CLIENT SIDE

Client Side Scripts (**Java Script**)  
Client Side Source Code  
**CSS (Style Sheet)**

## Master Page

## LIFE CYCLE

ASP.NET Application Life Cycle  
ASP.NET Page Life Cycle  
ASP.NET Page Life Cycle Events

## FIRST EXAMPLE

Page Directives  
Code Section  
Page Layout

Using Visual Studio IDE

## **EVENT HANDLING**

Event Arguments  
Application and Session Events  
Page and Control Events  
Event Handling Using Controls  
Default Events

## **SERVER SIDE**

Server Object  
Request Object  
Response Object

## **SERVER CONTROLS**

Properties of the Server Controls  
Methods of the Server Controls

## **BASIC CONTROLS**

Button Controls  
Text Boxes and Labels  
Check Boxes and Radio Buttons  
List Controls  
The ListItemCollection Object  
Radio Button list and Check Box List  
Bulleted lists and Numbered Lists  
HyperLink Control  
Image Control

## **DIRECTIVES**

Application Directive  
Assembly Directive  
Control Directive  
Implements Directive  
Import Directive  
Master Directive  
MasterType Directive  
OutputCache Directive

Page Directive  
PreviousPageType Directive  
Reference Directive  
Register Directive

## **STATEMANAGEMENT**

Cookies  
Query string  
View State  
Control State  
Session State  
Application State

## **VALIDATORS**

BaseValidator Class  
RequiredFieldValidator Control  
RangeValidator Control  
CompareValidator Control  
RegularExpressionValidator  
CustomValidator  
ValidationSummary  
Validation Groups

## **DATABASE ACCESS**

Retrieving and Displaying Data  
The DataSet Class  
The DataTable Class  
The DataRow Class  
The DataAdapter Object  
The DataReader Object  
DbCommand and DbConnection Objects

## **FILE UPLOADING**

## **AD ROTATORS**

The Advertisement File  
Properties and Events of the AdRotator Class  
Working with AdRotator Control

## **CALENDARS**

Properties and Events of the Calendar Control  
Working with the Calendar Control

## **MULTI VIEWS**

Properties of View and MultiView Controls

## **PANEL CONTROLS**

Working with the Panel Control

## **AJAX CONTROLS**

The ScriptManager Control  
The UpdatePanel Control  
The UpdateProgress Control  
The Timer Control

## **DATA SOURCES**

Data Source Views  
The SqlDataSource Control  
The ObjectDataSource Control  
The AccessDataSource Control

## **DATA BINDING**

Simple Data Binding  
Declarative Data Binding

## **CUSTOM CONTROLS**

User Controls  
Custom Controls  
Working with Custom Controls

## **WEB SERVICES**

Creating a Web Service  
Consuming the Web Service

## MULTITHREADING

Creating Thread  
Thread Life Cycle  
Thread Priority  
Thread: Properties and Methods

## CONFIGURATION

Configuration Section Handler declarations  
Application Settings  
Connection Strings  
System.Web Element

&

## RDBMS

SQL server

APOLLO EDUCATION  
COMPUTER EDUCATION  
PALLAVARAM