



DOT NET SYLLABUS FOR 4 WEEKS

INTRODUCTION TO .NET

Domain of .Net

D.N.A. Architecture

One Tier

Two Tier

Three Tier

N-Tier

THE COMMON LANGUAGE RUNTIME (C.L.R.)

CLR Architecture and Services

The .Net Intermediate Language (IL)

Just- In- Time Compilation and CLS

Disassembling .Net Application to IL

Strict Type Checking

.NET FRAMEWORK CLASS LIBRARY

System Namespace

System .Object Namespace

System .Collection Namespace

System .Type

Exception

SYNTAX & DATA TYPES

LANGUAGE FUNDAMENTAL

Data type and Control Constructs

Value and Reference Types

Declaring and Initializing Variables

Unicode Characters and Strings

C.T.S Type

Implicitly Typed Local Variables

Conditional Syntax

C# Operator

Looping Syntax

Structure

ARRAY & STRING

Arrays in General

Declaring of different type Arrays

Initializing Arrays

Accessing element of different type Array Members

Arrays of Objects

Structure type array

Using foreach with Arrays

Understanding System. String class and its various operations

OOPS CONCEPTS CLASSES

Encapsulating Attribute

Class & Object Creation

Define Constructor

Type of Constructor
Define Methods and their Type
Overloading Methods and Constructor overloading
Define Property and their Types
The Memory Allocation with New Keyword
Passing Initial Values with Constructor
Invoking Property and Methods
INHERITANCE

Implementing Inheritance Hierarchies
Class Access Modifiers
Method Overloading, Overriding and Hiding Concepts
Run time polymorphism
Abstract and Sealed Class
Exposing Interface
Implementation Interface in a Class
Play with Namespaces
Interface Polymorphism
Operator Overloading
Partial Class
EXCEPTION HANDLING

Means of Error, Bug and Exceptions
Role of .Net Exception Handling
System Level Exception
Application Level Exception
Try and Catch Block
Handling Multiple Exception
Finally Block
Throw Exception on Request Custom Exception
EVENTS AND DELEGATES

Event Driven Programming
Delegate, Event and its association
Synchronous and asynchronous operation with delegate
User Defined events and delegates
Multicasting with Delegates
Anonymous methods
Anonymous Methods with events
Generic Delegates
MULTITHREADING

Understand multithreading process
The System Threading namespace
The Thread and Thread Start class
Thread life cycle
Thread Safety Concept
Thread synchronization
Understanding Thread Pool
Understanding Role of Thread Background Worker Component
I/O OPERATIONS WITH FILE SYSTEMS

File and Directory Class
Marshal Classes, File Info and Directory Info
Path Class
Drive Info Class
Stream Object with Files: Stream Reader, Stream Writer
File Stream and Memory Stream
INTRODUCTION TO ADO.NET



How ADO.NET works and how it differs from ADO?

Evolution of ADO to ADO.NET

ADO.NET AND IT'S ARCHITECTURE

Connection Object

Command Object

Dataset

Data Reader Object

Data Adapter Object

Concurrency and the Disconnected Data Architecture

Provider

DATA SET

Creating Tables in Dataset

Data Column

Data Row

Data Table

Updating, Inserting and Modification in Data Table

Saving Changes into Data Base using Command Builder

Working With Command and Connection

CONNECTIONS AND COMMAND OBJECT

Connection Object

Command Object

Execute Non Query

Execute Scalar

DATA READER

Reading Data in Connected Environment

Moving and Accessing Value of Record

Execute Reader

DATAGRIDVIEW & DATA BINDING

Row State Filter and Sort Property

Update records via a Datagridview

Insert records via a Datagridview

Delete records via a Datagridview

TRANSACTION

Introduction of Transaction (ACID)

Transaction Class

Method and Property

Commit and Rollback

Project work is mandatory after the completion of the training program.