

*LansA Informatics Pvt Ltd*



**DOT NET**

**SYLLABUS BOOK**

*Get trained from Industry experts and enhance your Future*

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## **ABOUT DOT NET COURSE SCOPE:**

The primary purpose behind this is technological innovation is becoming complicated every day with more personalized and simple to use programs. There are also changes in the purchasing styles and objectives of the clients. So all the dot net experts must update and change themselves with the modifying styles of technological innovation. They should obtain skills on enhance dot net technological innovation like ADVANCE DOT NET, ASP DOT NET with MVC etc.,

Students from Computer Science wish to create their career in programming or Software application development field, then dot net provides an excellent opportunity. Students who are willing to become a dot net developer they should be able to take into consideration that dot net has an excellent opportunity.

## **PROGRAM EDGES:**

- ❖ Our training segments are completely designed according to current IT market.
- ❖ We offer regular, speed up and end of the week coaching in DOT NET training.
- ❖ Our major concern is to offer DOT NET technology coaching to you so that you can be wiser and create effective programs and programs more quickly using any
- ❖ After finishing DOT NET training, students can easily create and set up your own real-time DOT NET program.
- ❖ Study material is provided with the course which includes ideas, illustrations and real-time illustrations.

## **MODULE I (.NET FRAMEWORK):**

### **1. Introducing .NET-The Big Picture**

- 1.1 Characterize the .NET Paradigm
- 1.2 Describe Web Services

### **2. Building .NET-The Framework**

#### Components

- 2.1 Describe the .NET Framework
- 2.2 Describe the Common Language Runtime (CLR)
- 2.3 Compare the .NET Class Framework to a Language-Specific Class Library
- 2.4 Decide When to Use .NET Windows Forms
- 2.5 Describe the Uses of Web Forms and Web Services
- 2.6 Identify When to Use Console Applications

### **3. Managing .NET-The Common Language Runtime Components**

- 3.1 Identify the Components of the CLR
- 3.2 Describe Microsoft Intermediate Language (MSIL)
- 3.3 Distinguish between the .NET Compilers
- 3.4 Describe How the CLR Manages Memory

### **4. Taking Advantage of the Common Language Runtime**

- 4.1 Re-use Code
- 4.2 Describe Multiple Language Support in .NET

- 4.3 Explain Cross-Language Interoperability
- 4.4 Explain Garbage Collection
- 4.5 Describe Structured Error-Handling

### **5. Unifying .NET-The Class Framework**

- 5.1 Describe the .NET Class Framework
- 5.2 Describe the Purpose of Namespaces
- 5.3 To Use or Not to Use Inheritance
- 5.4 Differentiate Between Interface- and Inheritance-Based Polymorphism

## **MODULE II (VB.NET):**

### **1. Introduction to VB.net**

- 1.1 Elements
- 1.2 Types
- 1.3 Windows programming
- 1.4 Menus and Dialog Boxes

### **2. Using ADO.NET**

- 2.1 Features of ADO.NET
- 2.2 Accessing Data with ADO.NET

### **3. Developing Components in Visual Basic .NET**

- 3.1 ASP.NET Features
- 3.2 Creating Web Controls
- 3.3 Creating Web Forms

### **4. Deploying Applications**

- 4.1 Overview of XML
- 4.2 Introduction to web services

- 4.3 Describing Assemblies
- 4.4 Deploying Applications

### **MODULE III (C#.NET):**

#### **1. Introduction**

- 1.1 The Creation of C#
- 1.2 The Evolution of C#

#### **2. Language and Syntax Enhancements**

- 2.1 C# Language Fundamentals
- 2.2 ARRAYS
- 2.3 Decision making
- 2.4 Loops
- 2.5 Methods

#### **3. Using Object-Oriented Programming in C# .NET**

- 3.1 Object Oriented Concepts
- 3.2 Boxing
- 3.3 Delegates
- 3.4 Events
- 3.5 Interfaces

#### **4. Using Forms**

- 4.1 Windows Forms
- 4.2 Input, Output, and Serialization
- 4.3 Processes, App Domains, Contexts, Threading,
- 4.4 Type Reflection, Late Binding, Attribute-based programming.

### **MODULE IV (ASP.NET):**

#### **1. History of ASP.NET**

- 1.1 Getting Started with ASP.NET
- 1.2 Building an ASP.NET Web Site

### **2. Designing Web Site with Master Pages**

- 2.1 Server Controls
- 2.2 CSS for ASP.NET 3.5
- 2.3 Creating Consistent Looking Web Sites

### **3. Introduction to Event Handlers**

- 3.1 Control Events and Event Handlers
- 3.2 Validation Controls
- 3.3 ADO.NET

### **4. Accessing LINQ Controls**

- 4.1 LINQ
- 4.2 ASP.NET - Security
- 4.3 ASP.NET - Data Caching
- 4.4 ASP.NET - Multi Threading
- 4.5 ASP.NET – Configuration

### **MODULE V (ASP.NET MVC):**

#### **1. Introduction to ASP.NET MVC**

- 1.1 The MVC Pattern
- 1.3 Web Standards and REST Architecture
- 1.4 Disadvantages
- 1.5 ASP.NET MVC vs. Web Forms

#### **2. Essential Language Features**

- 2.1 Automatically Implemented Properties
- 2.2 Using Object and Collection Initializes
- 2.3 Entity Framework
- 2.4 Lambda Expressions

### **3. Building the Model**

- 3.1 Microsoft Data Access Options
- 3.2 Repository Pattern
- 3.3 Validation and Business Rule Logic
- 3.4 Familiarizing yourself with ASP.NET MVC classes(namespace)

### **4. Routes and URLs**

- 4.1 Introduction to Routing
- 4.2 Defining Routes
- 4.3 Constraints
- 4.4 Areas
- 4.5 Ignoring Routes

### **5. Controllers**

- 5.1 IController and ControllerBase
- 5.2 Action Methods
- 5.3 Working with Parameters
- 5.4 Action Result Types
- 5.5 HTTP Verbs
- 5.6 Asynchronous Actions
- 5.7 ViewData and TempData
- 5.8 Model Binders

### **6. Views and View Templates**

- 6.1 Defining Views
- 6.2 ASP.NET View Engine
- 6.3 Razor View Engine
- 6.4 ViewData
- 6.5 Strongly-Typed Views
- 6.7 Using a ViewModel
- 6.7 Remote Validator

### **7. HTML Helper Methods**

- 7.1 Strongly-Typed Helpers
- 7.2 Html.ActionLink & HTML Forms
- 7.3 List Controls

7.4 WebGrid

7.5 Validation

### **8. Partials and Master Pages**

- 8.1 Master Pages & User Controls
- 8.2 Partial and RenderPartial
- 8.3 Action and RenderAction

### **9. Securing MVC applications**

- 9.1 Securing your MVC Application
- 9.2 Walkthrough: Using Forms Authentication in ASP.NET MVC
- 9.3 Authorize Attribute class
- 9.4 Preventing JavaScript Injection (XSS) Attacks

The logo for Lansa Informatics Pvt. Ltd. is centered in the background. It features a stylized 'L' composed of blue and yellow geometric shapes. Below the 'L', the word 'Lansa' is written in a bold, orange, sans-serif font, and 'Informatics Pvt. Ltd.' is written in a smaller, grey, cursive font below it.

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Informatics Pvt. Ltd.

**AFTER GRADUATION??  
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