



# Dot Net Programming Training Coimbatore

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## Curriculum

### 1. Introduction to .NET Development:

- ✓ Understanding the .NET framework and its significance.
- ✓ Setting up your development environment for efficient coding.
- ✓ Overview of Common Language Runtime (CLR) and the Common Type System (CTS).

### 2. C# Programming Essentials:

- ✓ Mastering the C# programming language.
- ✓ Navigating through variables, data types, and control flow structures.
- ✓ Advanced concepts: Delegates, Events, and Lambda expressions.

### 3. Object-Oriented Programming (OOP) with .NET:

- ✓ Application of OOP concepts in the .NET environment.
- ✓ Understanding classes, objects, inheritance, polymorphism, encapsulation, and abstraction.
- ✓ Design principles: SOLID principles and Design Patterns.

### 4. .NET Web Development:

- ✓ Creating dynamic web applications with ASP.NET.
- ✓ Exploring web forms, MVC architecture, and web services.
- ✓ Frontend frameworks: Introduction to HTML5, CSS3, and JavaScript.

### 5. Database Connectivity with ADO.NET:

- ✓ Seamless integration with databases using ADO.NET.
- ✓ Executing SQL queries and handling data manipulation.
- ✓ Entity Framework: Object-Relational Mapping (ORM) for .NET.

## **6. Advanced .NET Features:**

- ✓ Exploring advanced features like LINQ and asynchronous programming.
- ✓ Implementing error handling and debugging techniques.
- ✓ Unit testing in .NET: Introduction to NUnit and MSTest.

## **7. Mobile App Development with Xamarin:**

- ✓ Introduction to cross-platform mobile app development.
- ✓ Building mobile applications using Xamarin and .NET.
- ✓ Deploying mobile apps to different platforms.

## **8. .NET Core and Microservices Architecture:**

- ✓ Overview of .NET Core and its advantages.
- ✓ Designing scalable and maintainable applications with Microservices Architecture.
- ✓ Containerization with Docker and orchestration with Kubernetes.