NEXT-GEN
.NET WITH AI

Ociuz
SKILLS ACADEMY

Why .NET DEVELOPER?

The .NET Full Stack Developer Program Is Designed To Build Expertise In C#, ASP.NET, MVC, SQL Server, And Modern .NET Core Technologies. Learners Will Master Frontend To Backend Development, Database Integration, Deployment, And Real-Time Applications With Signalr And AI Integration Using ML.NET And ONNX.

Course Structure

- ➡ 3 Months Course

- ➡ 3 Months Internship

- ➡ 100% Placement Assistance

By the end of the course, you will learn :

- Introduction To .NET Framework

- Object-Oriented Programming With C#

- Console Applications

- Database Management With SQL Server

- Web Development With ASP.NET

- Web Communication And APIs

- Three-Tier Architecture

- Entity Framework

- ASP.NET MVC Framework

- ASP.NET Core

- Advanced Topics

Syllabus

➡ INTRODUCTION TO .NET FRAMEWORK

1. Overview of Microsoft .NET Platform

2. Understanding CLR, CLS, and FCL

3. Framework architecture and components

4. Types of .NET applications (Console, Windows, Web)

5. Visual Studio IDE setup and project creation

➡ OBJECT-ORIENTED PROGRAMMING WITH C#

1. Classes, Objects, and Methods

2. Inheritance, Polymorphism, and Abstraction

3. Interfaces and Abstract Classes

4. Exception Handling and Delegates

5. Events and Collections (List, Dictionary, Arrays)

6. String operations and basic algorithms

➡ CONSOLE APPLICATIONS

1. Basic Programming Constructs

2. Conditional Statements (If, Switch)

3. Loops (For, While, Do-While, For-Each)

4. Arrays (1D, 2D, Matrix)

5. OOP-based console programs

6. ADO.NET integration in console applications

DATABASE MANAGEMENT WITH SQL SERVER

1. Database creation and table management

2. Primary Keys, Relationships, and Joins

3. Stored Procedures and Functions

4. Views and Triggers

5. CRUD operations with SQL Server

6. Aggregate and Scalar functions

WEB DEVELOPMENT WITH ASP.NET

1. Introduction to ASP.NET framework

2. Web Forms and Controls

3. ADO.NET for database connectivity

4. State Management (Session, Cookies, ViewState)

5. Validation Controls and Navigation

6. Data Controls (GridView, ListView, FormView, Repeater)

7. AJAX integration and Reporting

8. Hosting with IIS

WEB COMMUNICATION AND APIS

1. Introduction to WCF and Web API

2. Service-oriented architecture

3. CRUD operations using WCF and Web API

4. Dataset and DataAdapter usage

5. Difference between Web Service and WCF

6. Advantages of RESTful APIs

⮕ THREE-TIER ARCHITECTURE

1. Introduction to Layered Architecture
2. Data Access Layer (DAL), Business Logic Layer (BLL), and Presentation Layer (UI)
3. CRUD using Stored Procedures
4. Integrating 3-tier structure in Web Applications

⮕ ENTITY FRAMEWORK

1. Introduction to ORM concepts
2. Setting up EF in .NET
3. CRUD operations with EF
4. LINQ Queries (Select, Where, GroupBy, OrderBy)
5. Using EF with Web Forms and MVC
6. GridView, FormView, DataList integration with EF

⮕ ASP.NET MVC FRAMEWORK

1. MVC Architecture (Model, View, Controller)
2. Razor Syntax and Layout Views
3. HTML, CSS, Bootstrap, jQuery, AJAX integration
4. CRUD using Entity Framework in MVC
5. Validations and Data Annotation
6. JSON and AJAX Binding
7. Report generation and PDF creation

⊙ ASP.NET CORE

1. Introduction to .NET Core and its benefits

2. Framework architecture and cross-platform features

3. Building REST APIs with ASP.NET Core

4. Dependency Injection, Middleware, and Routing

5. Hosting and Deployment

⊙ ADVANCED TOPICS

1. JWT Authentication

2. SignalR Core for Real-Time Communication

3. AI with ML.NET (Machine Learning in .NET)

4. Using Pre-trained AI Models (ONNX Integration)

⊙ INTERNSHIP & CAPSTONE PROJECT

1. Real-time Project Development

2. Version Control using Git & GitHub

3. Team Collaboration & Documentation

4. Deployment and Hosting

5. Mock Interviews, Technical Tests & Resume Building

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