



# START *coding* TODAY



**A PROVEN PATH TO GET A JOB  
IN 6 TO 8 MONTHS OR LESS**



# course designer

I am a teacher and entrepreneur for the past 12 years, I am managing the Software development company Kangaroo Software PVT LTD and the best Software Education Institute SHIVA CONCEPT SOLUTION. I am very much passionate about teaching and helping students.



**shiva gautam**

# PART 1: INTRODUCTION TO .NET CORE

## 1. Understanding .NET Framework and .NET Core

- Overview of .NET architecture.
- Differences between .NET Framework and .NET Core.
- Setting up the development environment.
- NET class library, explore nuget package manager
- ASP.NET Core vs ASP.NET MVC
- Explain Project & it's directory

## 3.C# OOPS

- What is OOPS
- Data Abstraction & Data Encapsulation
- Polymorphism, Constructor, Inheritance
- Interface & Abstract Class, sealed class
- Design Pattern in C#
- Dependency Injection, Singleton Class, IS-A & HAS-A relationship

## 2.C# Programming Basics

- Syntax, data types, and variables.Operator & it's type
- Control flow (if-else, loops).
- Switch Statement
- Array, Single Dimension, Multi Dimension, Jagged Array, Object Array
- String handling, string builder, string predefined method

## 4.C# Advance topics

- File Handling, File operations
- Exception Handling & Custom Exception
- Events, Delegate, type of delegate, Reflection
- Collections & it's type, Multithreading
- C# Interview Q/A

## **PART 2: .NET CORE WEB DEVELOPMENT**

### **1.ASP.NET Core MVC**

- Creating web applications using the MVC pattern.
- Routing, controllers, and views. ViewBag and TempData, Session vs Cookies,
- Razor syntax.Razor Form, Model Object, HTML Helper class, HTML, CSS, JS, Bootstrap, Template Design, Navigation, Menu, Master page, child page, partial render, validation using JS
- Communicate data from view to controller & Controller to view
- Create Dynamic form using Model Object

### **2.Entity Framework Core**

- ORM (Object-Relational Mapping) with EF Core.
- Database migrations and seeding.
- LINQ queries.,CODE First, Data First, migration
- SQL query, MS-SQL, MYSQL-DB,
- Data validation, File uploading, AJAX operation
- Database security, Reporting Services
- Create Login form & registration form
- Create Admin Dashboard
- Manage user login & logout
- Data First Approach & Code First Approach

## **PART 3: ADVANCED .NET TOPICS**

### **1.Dependency Injection and Middleware**

- Understanding DI in ASP.NET Core.
- Custom middleware development.

### **2.Authentication and Authorization**

- Implementing authentication (JWT, OAuth).
- Role-based access control.

## **PART 4: .NET WEB API AND MICROSERVICES**

### **1. Building RESTful APIs with ASP.NET Core**

- Creating API endpoints. API Authentication
- Versioning and documentation.
- Test API under Swagger

### **2. Microservices Architecture**

- Designing microservices.
- Communication patterns (REST, gRPC).

# PART 13: MS-SQL DATABASE INTEGRATION

## 1. Introduction to MS-SQL

- Overview of MS-SQL database management system
- Installing MS-SQL server and client

## 2. SQL Basics

- Understanding SQL syntax
- CRUD operations (Create, Read, Update, Delete)
- Data definition language (DDL) and data manipulation language (DML) commands.
- SQL Operator In, NOT IN, Between, Not Between, ANY, ALL, LIKE, etc

## 3. Database Design and Modeling

- Entity-relationship modeling
- Normalization and denormalization

## 4. Advance database Query

- Join, Set Operator
- Where , Group by, Order by, Having
- Procedure, Trigger, Cursor

# CORE VALUES

They're the heart of our institute, These values are the foundation of our daily operations, shaping our actions to provide an exceptional learning experience and empower students in programming.



## Innovation

We encourage creative thinking and new ideas in our teaching methods and curriculum to keep learning dynamic and engaging.



## Goals

We help you set clear objectives and work with you to achieve them, ensuring your progress and success.



## Transparency

We believe in open communication and clarity in all our processes, keeping you informed every step of the way.



## faculties

Our instructors are experienced professionals dedicated to providing quality education and guidance.



## Responsibility

We take our role seriously in nurturing your skills and ensuring a supportive learning environment.



## Trust

You can rely on us for honest guidance, fair practices, and a commitment to your educational journey.



## placement

We assist you in securing rewarding opportunities after completing your program, bridging the gap between education and employment.

# Connect with us.



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