

.NET Full Learning Roadmap (Enhanced Edition)

1. C# Fundamentals (Week 1)

- Variables, Data Types
- Loops & Conditions
- Methods & Classes
- OOP Concepts
- Exception Handling
- async/await basics

2. ASP.NET Core Basics (Week 2–3)

- What is .NET Core
- Controllers & Routing
- Middleware
- Dependency Injection
- REST API Development
- Swagger
- MVC vs Web API

3. Entity Framework Core (Week 4)

- Code First Migrations
- DbContext & DbSet
- One-to-Many, Many-to-Many
- CRUD with EF Core

4. SQL Server Basics (Week 4)

- SELECT, INSERT, UPDATE, DELETE
- JOINS
- Basic Stored Procedures

5. Beginner Projects (Week 5)

- Student Management System
- Notes API
- Authentication using JWT

6. Advanced Concepts (Week 6)

- Logging (Serilog)
- Authentication & Authorization
- Custom Middleware
- API versioning

7. Full-Stack Development (Week 7–8)

- React + ASP.NET Core API
- State Management
- Database Integration

8. Deployment (Week 9)

- Azure App Service Deployment
- CI/CD Basics
- Publishing API

Tools to Install

Tool	Purpose
Visual Studio 2022 / VS Code	IDE for .NET development
.NET SDK (latest)	Run and compile .NET applications
SQL Server + SSMS	Database & management
Postman	API testing

Estimated Duration: 1.5–2 Months (2–3 hours daily)

Goal: Become a Full-Stack .NET + React Developer.