

- ✔ Personal Recommendation / Opinion
- ✔ Alternative Options
- ✔ Optional / Learn anytime

Special thanks for the roadmap contribution
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- ✔ Git - Version Control
- ✔ GitHub, GitLab, BitBucket
- ✔ HTTP / HTTPs Protocol
- ✔ Data Structures and Algorithms

- ✔ ASP.NET Core Basics
 - ✔ MVC
 - ✔ REST
 - ✔ Minimal APIs
 - ✔ Razon Pages
 - ✔ Razor Components
 - ✔ Middlewares
 - ✔ Filters and Attributes
 - ✔ App Settings and Configs

- ✔ Entity Framework 2nd Level Cache

- ✔ Search Engines
 - ✔ Elastic Search
 - ✔ Solr
- ✔ Cloud
 - ✔ Cosmos DB
 - ✔ Dynamo DB
- ✔ Relational
 - ✔ SQL Server
 - ✔ PostgreSQL
 - ✔ MariaDB
 - ✔ MySQL
- ✔ NoSQL
 - ✔ MongoDB
 - ✔ Cassandra
 - ✔ LiteDB
 - ✔ CouchDB

- ✔ Web Sockets
- ✔ SignalR Core

- ✔ Object Mapping
 - ✔ AutoMapper
 - ✔ Mapperly
 - ✔ Manual Mapping
- ✔ Task Scheduling
 - ✔ Hangfire
 - ✔ Quartz
 - ✔ Coravel

- ✔ Message Brokers
 - ✔ ActiveMQ
 - ✔ RabbitMQ
 - ✔ Azuer Service Bus
- ✔ Message Bus
 - ✔ NServiceBus
 - ✔ Mass Transit
 - ✔ EasyNetQ
- ✔ API Gateway
 - ✔ Ocelot
 - ✔ YARP
- ✔ Containerization
 - ✔ Docker
 - ✔ Kubernetes
- ✔ Other
 - ✔ .NET Aspire
 - ✔ Orleans
 - ✔ SteelToe
 - ✔ Dapr

- ✔ Razor
- ✔ Scriban
- ✔ Fluid
- ✔ Scalar
- ✔ MediatR
- ✔ FluentValidation
- ✔ Polly
- ✔ Marten
- ✔ Nuke
- ✔ Benchmark.NET
- ✔ Distributed Lock

ASP.NET Core

Find the detailed version of this roadmap along with other similar roadmaps
roadmap.sh

- ✔ Learn the Basics of C#
- ✔ General Development Skills

- ✔ C#
- ✔ .NET
- ✔ .NET CLI
- ✔ StyleCop Rules

- ✔ Database Fundamentals
- ✔ Object Relational Mapping

- ✔ SQL Basics
- ✔ Database Design Basics
- ✔ Stored Procedures
- ✔ Constraints
- ✔ Triggers

- ✔ Entity Framework Core
 - ✔ Framework Basics
 - ✔ Code First + Migrations
 - ✔ Change Tracker API
 - ✔ Lazy, Eager, Explicit Loading
- ✔ Dependency Injection
 - ✔ Scrutor
 - ✔ Life Cycles
 - ✔ Scoped
 - ✔ Transient
 - ✔ Singleton

- ✔ DI Containers
 - ✔ Microsoft.Extensions
 - ✔ AutoFac

Databases

- ✔ Serilog
- ✔ NLog

Log Frameworks

- ✔ GraphQL .NET
- ✔ HotChocolate
- ✔ GraphQL
- ✔ REST
- ✔ Gridlify
- ✔ Odata

API Clients and Communication

- ✔ gRPC

Real-Time Communication

Object Mapping

- ✔ Native Background Service

Task Scheduling

Testing

- ✔ E2E Testing
 - ✔ Playwright
 - ✔ Puppeteer
 - ✔ Cypress
- ✔ Integration Testing
 - ✔ WebApplicationFactory
 - ✔ Test Containers
 - ✔ .NET Aspire
 - ✔ Respawn
- ✔ Behavior Testing
 - ✔ Specflow
 - ✔ Light BDD
- ✔ Unit Testing Frameworks
 - ✔ MSTest
 - ✔ XUnit
 - ✔ NUnit
- ✔ Assertions
 - ✔ Shouldly
- ✔ Fake Data Generation
 - ✔ AutoFixture
 - ✔ Bogus
- ✔ Mocking
 - ✔ NSubstitute
 - ✔ Moq
 - ✔ FakeItEasy

Microservices

- ✔ GitHub Actions
- ✔ Azure Pipelines
- ✔ GitLab CI/CD
- ✔ Circle CI

CI / CD

Software Design and Architecture

Client-Side .NET

- ✔ Template Engines
 - ✔ Blazor
- ✔ Frameworks
 - ✔ .NET MAUI

Good-to-Know Libraries

Visit Backend path and see what you missed
[Backend Roadmap](#)