ASP.NET Core Developer 🔖

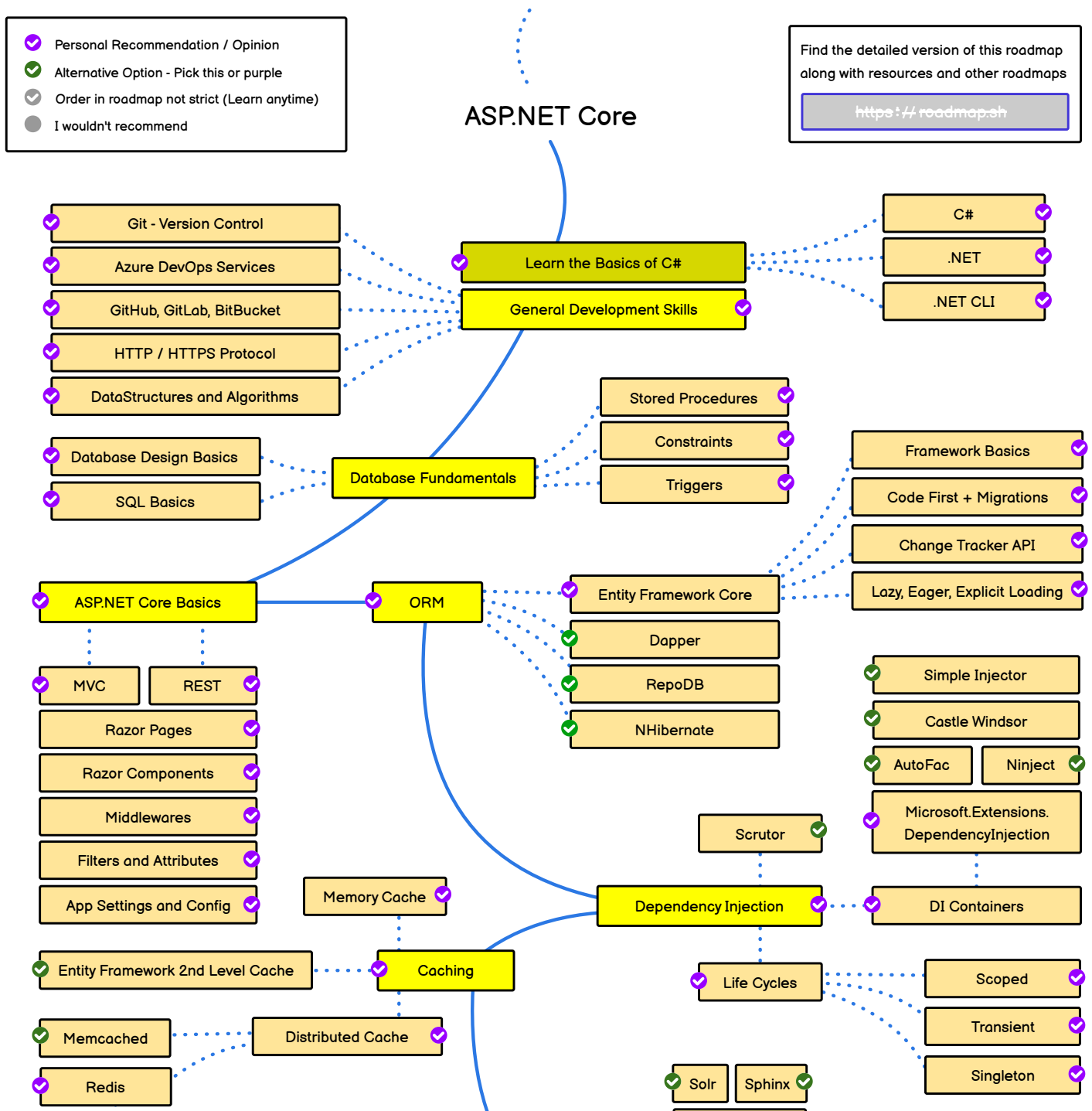Step by step guide to becoming an ASP.NET core developer in 2023
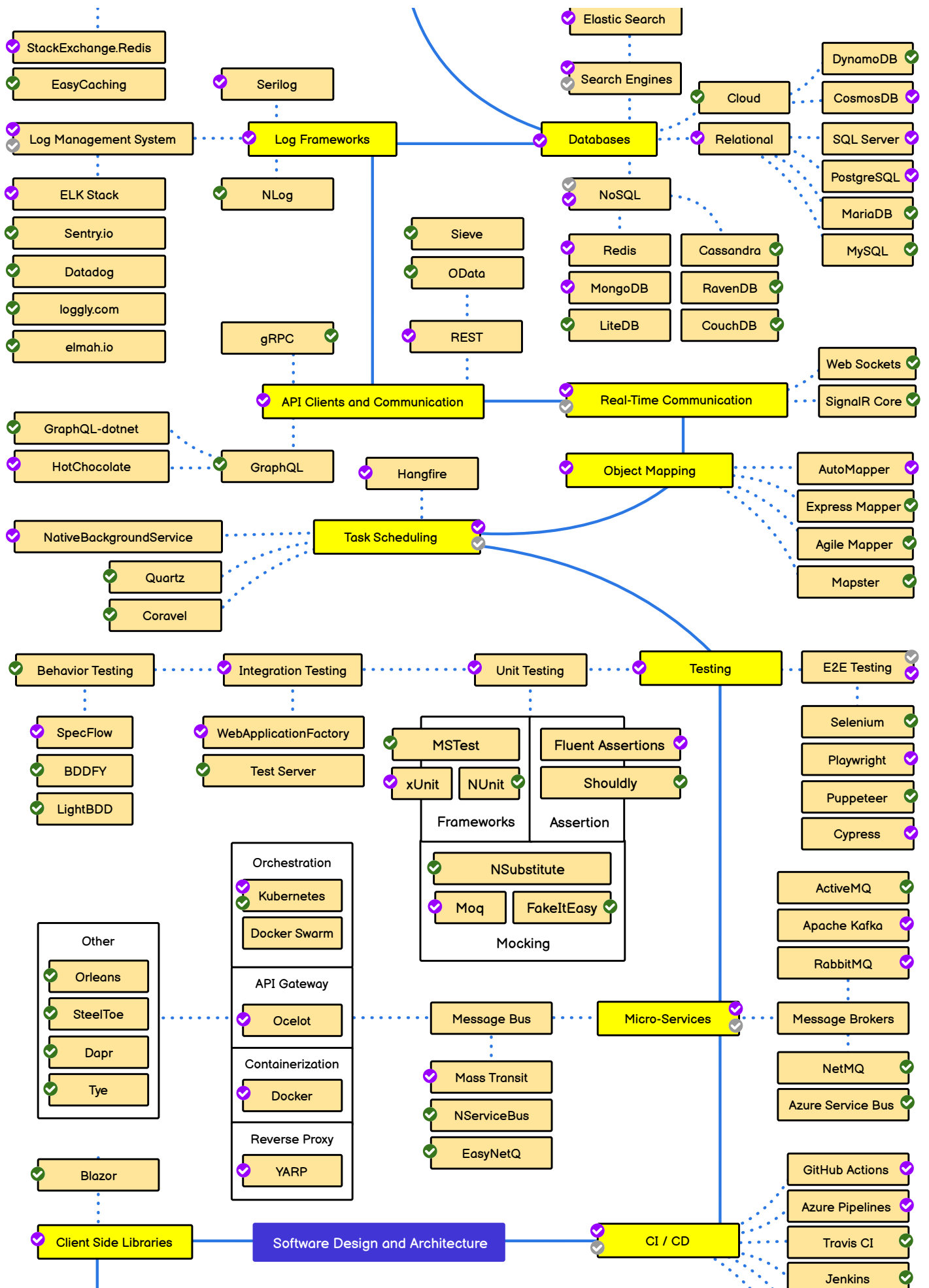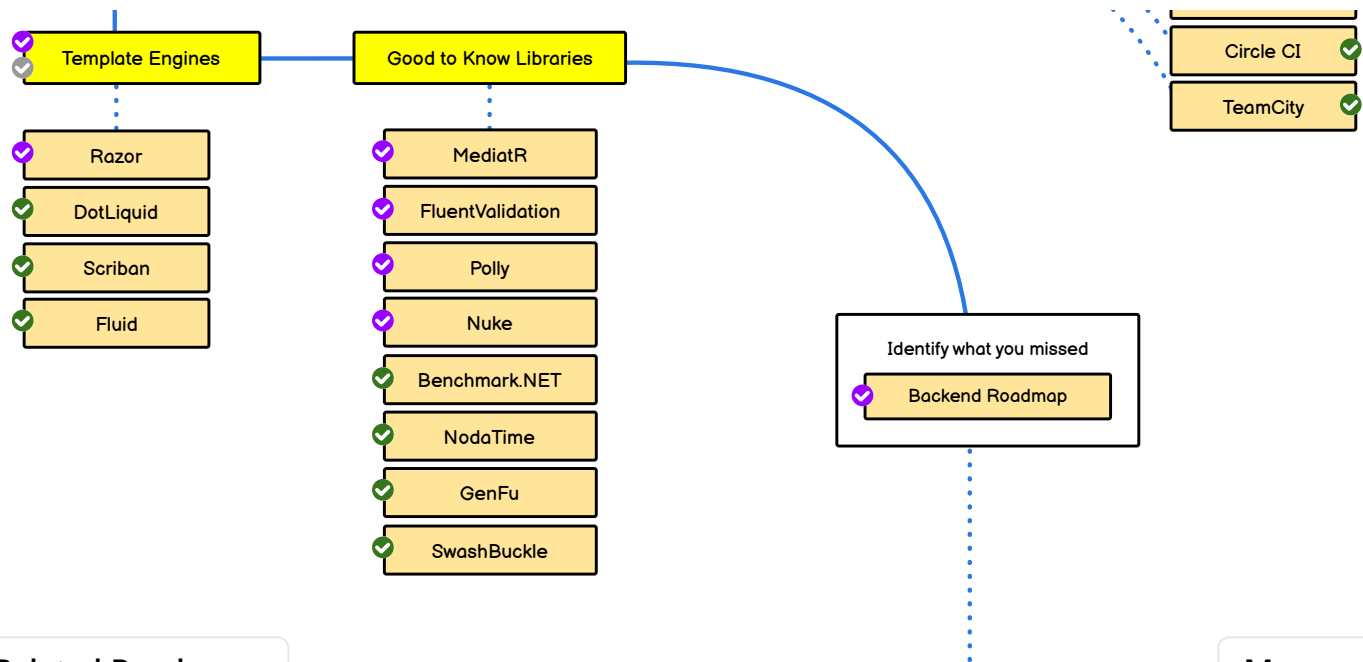
← ⬇   Suggest

0 of 168 Done   ⬆ Share Progress

ASP.NET Core

Legend:
- ✓ Personal Recommendation / Opinion
- ✓ Alternative Option - Pick this or purple
- ✓ Order in roadmap not strict (Learn anytime)
- ● I wouldn't recommend

Find the detailed version of this roadmap along with resources and other roadmaps
https://roadmap.sh

- Git - Version Control
- Azure DevOps Services
- GitHub, GitLab, BitBucket
- HTTP / HTTPS Protocol
- DataStructures and Algorithms

- Learn the Basics of C#
  - C#
  - .NET
  - .NET CLI
- General Development Skills

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

- Framework Basics
- Code First + Migrations
- Change Tracker API
- Lazy, Eager, Explicit Loading

- ASP.NET Core Basics
  - MVC
  - REST
  - Razor Pages
  - Razor Components
  - Middlewares
  - Filters and Attributes
  - App Settings and Config
- ORM
  - Entity Framework Core
  - Dapper
  - RepoDB
  - NHibernate

- Simple Injector
- Castle Windsor
- AutoFac
- Ninject
- Microsoft.Extensions.DependencyInjection

- Scrutor
- Dependency Injection
  - DI Containers
  - Life Cycles
    - Scoped
    - Transient
    - Singleton

- Memory Cache
- Entity Framework 2nd Level Cache
- Caching
- Memcached
- Distributed Cache
- Redis

- Solr
- Sphinx

Software Design and Architecture

Caching
- StackExchange.Redis
- EasyCaching

Log Management System
- ELK Stack
- Sentry.io
- Datadog
- loggly.com
- elmah.io

Log Frameworks
- Serilog
- NLog

Databases
- Elastic Search
- Search Engines
- Cloud
  - DynamoDB
  - CosmosDB
- Relational
  - SQL Server
  - PostgreSQL
  - MariaDB
  - MySQL
- NoSQL
  - Redis
  - Cassandra
  - MongoDB
  - RavenDB
  - LiteDB
  - CouchDB

API Clients and Communication
- gRPC
- Sieve
- OData
- REST
- GraphQL
  - GraphQL-dotnet
  - HotChocolate

Real-Time Communication
- Web Sockets
- SignalR Core

Object Mapping
- AutoMapper
- Express Mapper
- Agile Mapper
- Mapster

Task Scheduling
- Hangfire
- NativeBackgroundService
- Quartz
- Coravel

Testing
- Behavior Testing
  - SpecFlow
  - BDDFY
  - LightBDD
- Integration Testing
  - WebApplicationFactory
  - Test Server
- Unit Testing
  - Frameworks
    - MSTest
    - xUnit
    - NUnit
  - Assertion
    - Fluent Assertions
    - Shouldly
  - Mocking
    - NSubstitute
    - Moq
    - FakeItEasy
- E2E Testing
  - Selenium
  - Playwright
  - Puppeteer
  - Cypress

Micro-Services
- Message Brokers
  - ActiveMQ
  - Apache Kafka
  - RabbitMQ
  - NetMQ
  - Azure Service Bus
- Message Bus
  - Mass Transit
  - NServiceBus
  - EasyNetQ

Orchestration
- Kubernetes
- Docker Swarm

API Gateway
- Ocelot

Containerization
- Docker

Reverse Proxy
- YARP

Other
- Orleans
- SteelToe
- Dapr
- Tye

Client Side Libraries
- Blazor

CI / CD
- GitHub Actions
- Azure Pipelines
- Travis CI
- Jenkins

Template Engines — Good to Know Libraries

Razor
DotLiquid
Scriban
Fluid

MediatR
FluentValidation
Polly
Nuke
Benchmark.NET
NodaTime
GenFu
SwashBuckle

Circle CI
TeamCity

Identify what you missed

Backend Roadmap

Related Roadmaps

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