< Coding♪onata />

# 15 Libraries in ASP.NET Core Every Developer Should Know About

## With Alternatives

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# ASP.NET Core Serilog

Write structured logging on a wide range of outputs (sinks) with the ability to write your own sink, distinguish between the levels of logs and fine grain the formatting for your logs to match your logging requirements.

## Alternative?

Log4Net

# ASP.NET Core Authentication JwtBearer

.NET

Build a solid JWT Authentication in your ASP.NET Core Web API with a cryptographically secure JWT Generation and Validation.

## Alternative?

- **OpenIddict** or **IdentityServer4 (DuendeSoftware)** for Security Token Services (STS)
- **Auth0** or **KeyCloak** for Identity Providers (IdP)
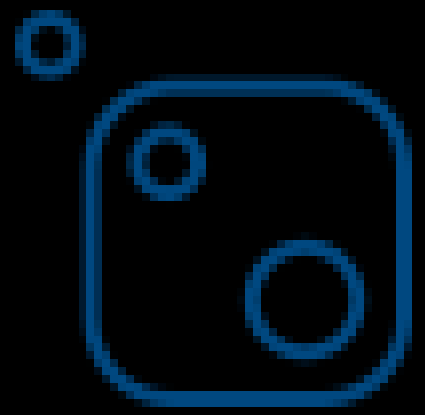
# Newtonsoft.Json

A high-performance library to easily convert between JSON and .NET Objects, create and parse JSON Objects, query JSON objects using LINQ and provide formatting HTTP Responses.

## Alternative?

System.Text.Json

# SwashBuckle
# ASP.NET Core Swagger

Makes your RESTful APIs discoverable by generating OpenAPI Specification file, it can enable your clients visualize and test your APIs with an elegant web-based interface (Swagger UI).

## Alternative?
NSwag

# Mapster

Rely on a simple yet powerful, blazing-fast, configuration-based tool to handle the objects mapping for you. Supports Fluent API, Nested Mappings, Immutable Collections.

**Alternative?**

**AutoMapper**

# Entity Framework Core

.NET

A widely-popular and easy to use Object-relational Mapping library, it provides you with a convenient way to build a comprehensive data access layer that can connect to virtually any relational or non-relational databases.

## Alternative?

**Dapper**

# ASP.NET Core MVC Versioning

Apply versioning for your RESTful APIs to swiftly release new changes on your APIs while not affecting your current clients.

**Alternative?**

Asp.Versioning.Http

# ASP.NET Core Fluent Validation

Apply seamless and easy validations on models and entities with strongly-typed validation rules based on the Fluent API.

**Alternative?**

**.NET Data Annotations**
(System.ComponentModel.DataAnnotations)

# StackExchange Redis

A higly-reliable and scalable solution for Distributed Caching, Streaming and Messaging. Redis is an in-memory data store that can store different formats of data structures, like strings, hashes, dictionaries, lists and others.

## Alternative?
NCache

# Refit

Handle and manage all the API Calls to other web services with a clean interface and simplified implementation for interceptors. Refit was inspired by the widely-popular Android/Java Retrofit library, and now considered as the Retrofit of .NET.

## Alternative?

**RestSharp**

# Hangfire

Create and manage different types of background jobs, including fire-and-forget, delayed, batches and others.

Hang fire is your best library to run background jobs in .NET including ASP.NET Core and other service applications

**Alternative?**
**Quartz.NET**

# MediatR

Decouple your intra communicating components by introducing a Mediator object to handle all communications.
With the support of requests, responses, separation of commands and queries, notifications and events you can easily implement the Mediator Design Pattern.

**Alternative?**
**Brighter**

@AramT87

# xUnit.net

Support your test-driven development approach with tests that are tailored towards Facts and Theories with the support of range of input data. This great testing tool and library enables you to run your tests on multiple .NET frameworks, to check your code compatibility with your targeting versions.

**Alternative?**

**NUnit**

# Polly

Widely popular library to make your .NET app resilient and reliable against transient-faulty situations.

Using Polly you can apply fluent-api based policies like retry, circuit breaker, timeout, fallback and many more to make your application resilient for network issues, server errors and request timeouts

**Alternative?**

**Http.Resilience**

# Moq

Easily build strongly-typed Mocks for your classes and interfaces by leveraging lambda expressions to support you to build solid tests and simplify your test-driven development.

**Alternative?**

**JustMock or NSubstitute**

# Thank You

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