

# Resources and Links for "Clean Architecture in C#"

## Contents

This course gives an introduction to the modern interpretation of the Clean Architecture as expressed in C# and .NET. We develop a service from scratch by building all components of the required Clean Architecture as expressed in the Presentation, Infrastructure, Application, and Domain layers.

We apply a number of indispensable tools and packages such as MediatR, FluentValidation, and ErrorOr when building a simple URL shortener service from the bottom up.

The course consists of both module presentations and practical exercises.

## Prerequisites

This course is aimed at C# developers with a working knowledge of C# and cursory knowledge of ASP.NET Core Web API.

## Agenda

The course has a duration of 1 course day following the agenda outlined below.

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| Day 1 | Introduction<br>Module 01: "Setting the Scene"<br>Module 02: "Introducing Clean Architecture"<br>Module 03: "Our Running Example"<br>Module 04: "CQRS and Mediator"<br>Module 05: "Error Handling"<br>Module 06: "Validation"<br>Module 07: "Architecture Tests"<br>Module 08: "Variations and Alternatives" |
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## Resources and Links

- .http files in Visual Studio 2022
  - <https://learn.microsoft.com/en-us/aspnet/core/test/http-files?view=aspnetcore-8.0>
- CQS
  - <https://martinfowler.com/bliki/CommandQuerySeparation.html>
- CQRS
  - <https://www.eventstore.com/cqrs-pattern>
  - <https://martinfowler.com/bliki/CQRS.html>
- MediatR
  - <https://github.com/jbogard/MediatR/wiki>
- Problem Details Specification
  - <https://www.rfc-editor.org/rfc/rfc7807.html>
- ErrorOr

- <https://www.youtube.com/watch?v=2hiKyFi1mgI>
- Fluent Validation
  - <https://docs.fluentvalidation.net/en/latest/>
- Architecture Tests
  - <https://www.youtube.com/watch?v=66GQSphX9kA>
  - <https://archunitnet.readthedocs.io/en/latest/>
  - <https://github.com/BenMorris/NetArchTest>
- Fluent Assertions
  - <https://fluentassertions.com/>
- Variations and Vertical Slices
  - [https://www.youtube.com/watch?v=\\_yJRn2\\_SFg&t=31s](https://www.youtube.com/watch?v=_yJRn2_SFg&t=31s)

## Background

- <https://www.milanjovanovic.tech/blog/how-to-build-a-url-shortener-with-dotnet>