Testing Security: Custom Logic & Middleware

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Overview

Use the Strategy Pattern to make authorization decisions

ASP.NET Core Middleware

First up:
Using the Strategy Pattern to make authorization decisions

Demo

The President Database is going start selling subscriptions

- Basic → Search

- Ultimate → Search + Images

Decide if a user is authorized to do something

Strategy Pattern

- Strategy encapsulates algorithms & business logic

IUserAuthorizationStrategy

DefaultUserAuthorizationStrategy

Next up:
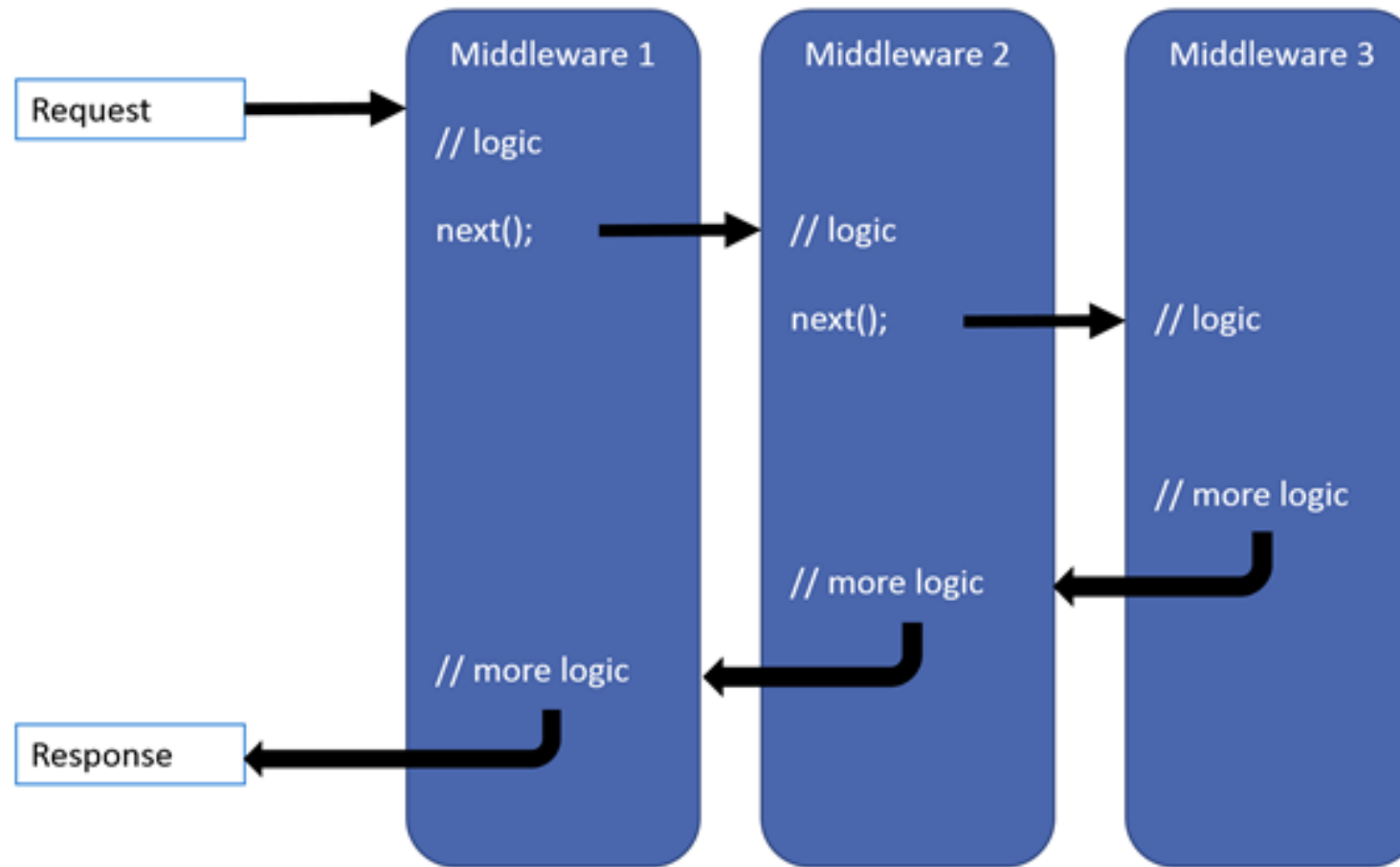Middleware

ASP.NET Core Middleware

What is middleware?

It's stuff in the middle

Middleware lets you plug
your code into the
ASP.NET Core execution pipeline

Middleware

https://docs.microsoft.com/en-us/aspnet/core/fundamentals/middleware

"What does middleware have to do with security?"

Not necessarily anything...

...but it can be really helpful in security scenarios

Use Middleware to hook into the execution pipeline and populate claims

Implementing Middleware

Really easy

Create a class that implements Microsoft.AspNetCore.Http.IMiddleware

InvokeAsync(HttpContext context, RequestDelegate next)

Configure Startup.cs

Next up:
Middleware Demo

Demo

ASP.NET Core Middleware

Load information about user's subscription status

Populate claims

Unit Tests

Summary

Use the Strategy Pattern to make authorization decisions

ASP.NET Core Middleware

Next up:
Testing Web API