ASP.NET Core Middleware: The Hidden Powerhouse of Your Web Apps

Middleware is the unsung hero of **ASP.NET** Core - the chain of components that quietly shapes every request/response. Here's what every senior dev should know:

The Pipeline Explained

Middleware components form a sequential pipeline where each:

- ✓ Can inspect/modify HttpContext
- ✓ Decides to pass control downstream
- ✓ Can short-circuit (like Static Files does)

♣ Pro Tips

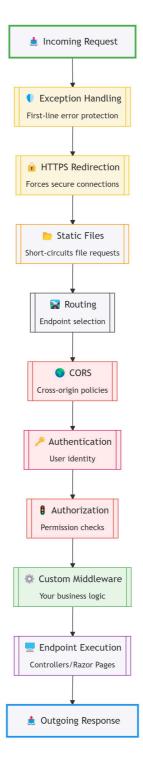
- Run() delegates are terminal no next parameter
- Map/MapWhen create smart pipeline branches
- Order is everything (Auth before Endpoints!)

Advanced Patterns

- UseWhen for conditional pipeline rejoins
- Endpoint-aware middleware for targeted logic
- Async all the way for max throughput
- Common Pitfalls
- **X** Blocking async calls (.Result) → deadlocks
- **X** Capturing scoped services → memory leaks
- **X** Swallowed exceptions → ghost bugs

I've just published a deep dive with diagrams, code samples, and battle-tested

patterns: https://shorturl.at/9haWS



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