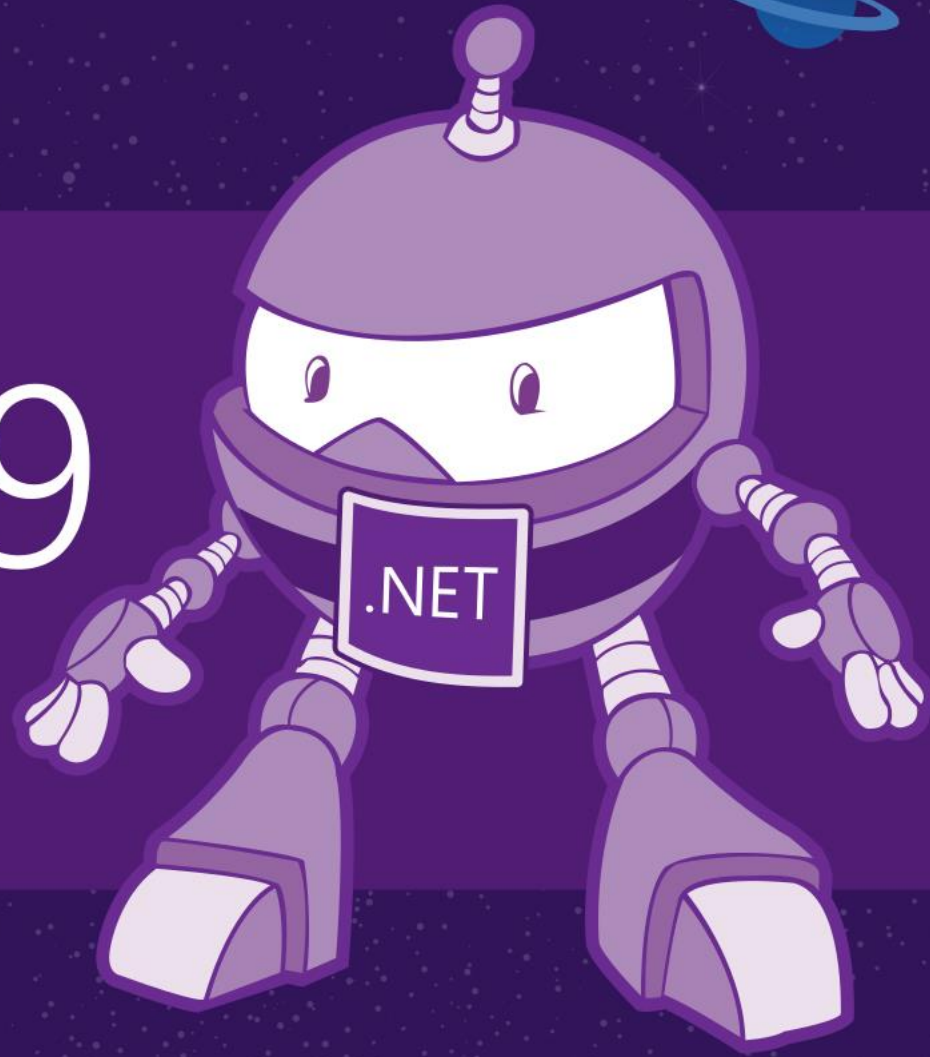


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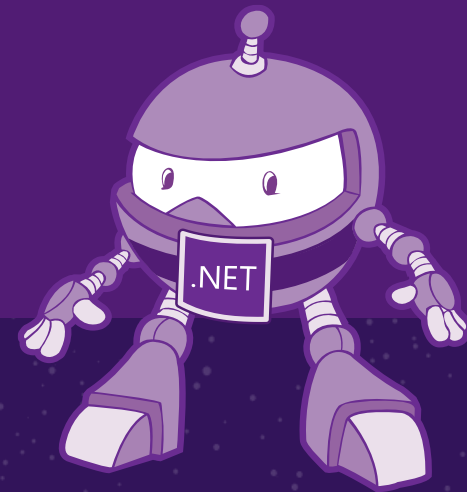


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Introduction to Web API development with ASP.NET Core

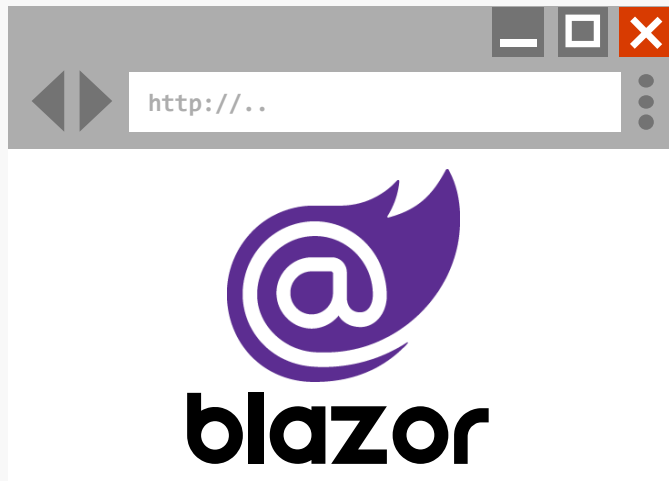


Marco Minerva
Microsoft MVP
<https://about.me/marcominerva>



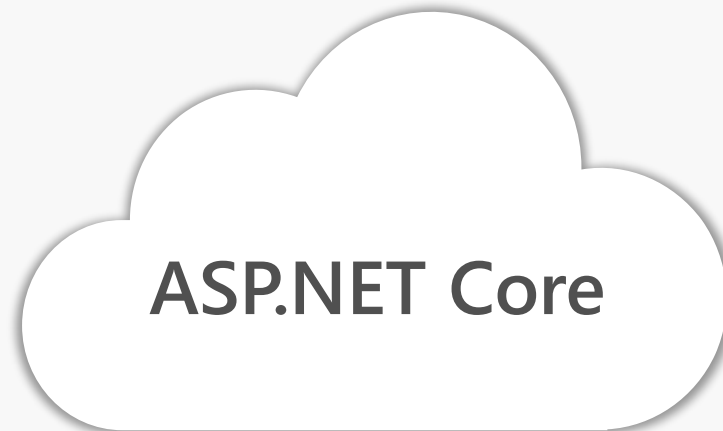
ASP.NET Core 3.0: A full stack solution

Client



- Blazor
- Components
- SPA (JavaScript)

Frontend



- MVC / Razor Pages
- SignalR
- Security & identity

Backend



- Web APIs
- Worker services
- gRPC

ASP.NET Core 3.0



gRPC

High performance contract-based RPC services with .NET

Works across many languages and platforms



Worker Service

Starting point for long running back processes like Windows Server or Linux daemon

Producing or consuming messages from a message queue

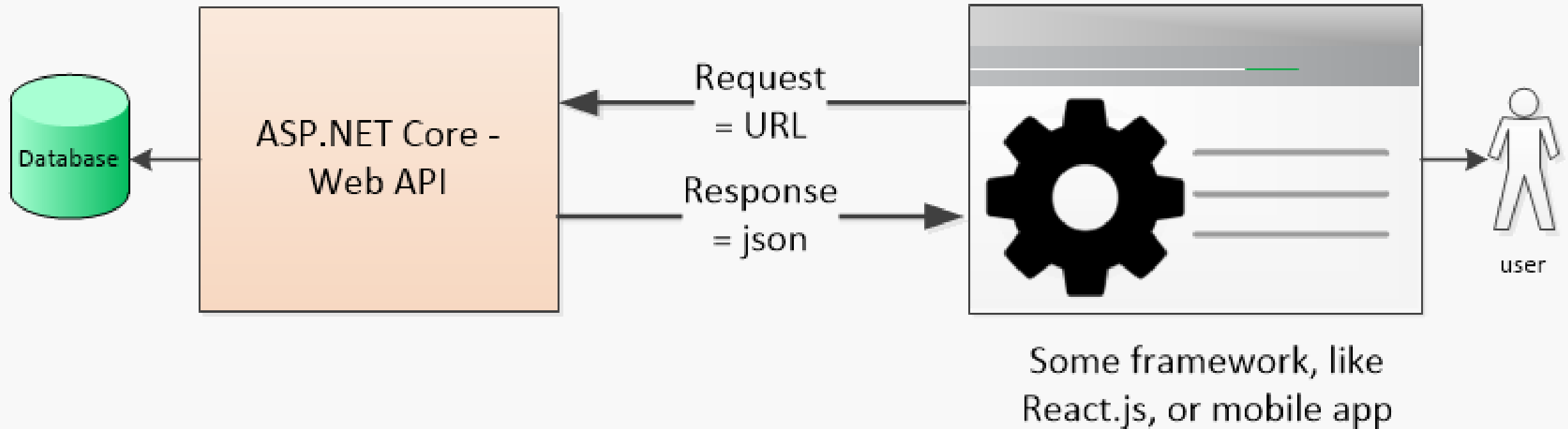


Web API's + Identity

Add security and authentication to Web API's

ASP.NET Core Web API architecture

The external system is in charge



ASP.NET Core Web API at a glance

```
[ApiController]
[Route("[controller]")]
public class HelloController : ControllerBase
{
    [HttpGet]
    public ActionResult Get(string name)
    {
        return Ok(new
        {
            Message = $"Hello, {name}!",
            Date = DateTime.UtcNow
        });
    }
}
```

The screenshot shows the Swagger UI interface in a browser window. The address bar displays `https://localhost:44363/index.html`. The page title is "My API v1 OAS3" and the URL is `/swagger/v1/swagger.json`. A dropdown menu at the top right shows "Select a definition" with "My API V1" selected. The main content area displays the "Hello" endpoint with a "GET" method and a "Try it out" button. Below the endpoint, there is a "Parameters" section with a table:

Name	Description
name	

The "name" parameter is a string (query) with a text input field containing the value "name".

The screenshot shows the "Try it out" panel in the Swagger UI. The "Request URL" field contains `https://localhost:44363/Hello?name=Marco`. The "Server response" section shows a 200 status code and a response body:

```
{
  "message": "Hello, Marco!",
  "date": "2019-10-21T15:00:36.4914701Z"
}
```

There is a "Download" button next to the response body. The "Response headers" section is partially visible at the bottom.

Demo

My First Web API



ASP.NET Core cross-platform



Demo

ASP.NET Core on Linux



Resources

- <https://docs.microsoft.com/aspnet/core>
- <https://dotnet.microsoft.com/apps/aspnet/apis>
- <https://docs.microsoft.com/en-us/dotnet/core/install/linux-package-manager-ubuntu-1904>
- <https://github.com/marcominerva/WebAPI-Samples>

Thanks! Questions?



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