

# Azure Static Web Apps with Full Stack .NET

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# What we will cover

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Azure Static Web Apps

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Full Stack Apps with Blazor and .NET

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Debugging and Deployment

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Advanced Scenarios

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# About Me

**azenix**

Lead Software Engineer &  
Developer Relations



Microsoft MVP  
Developer Technologies



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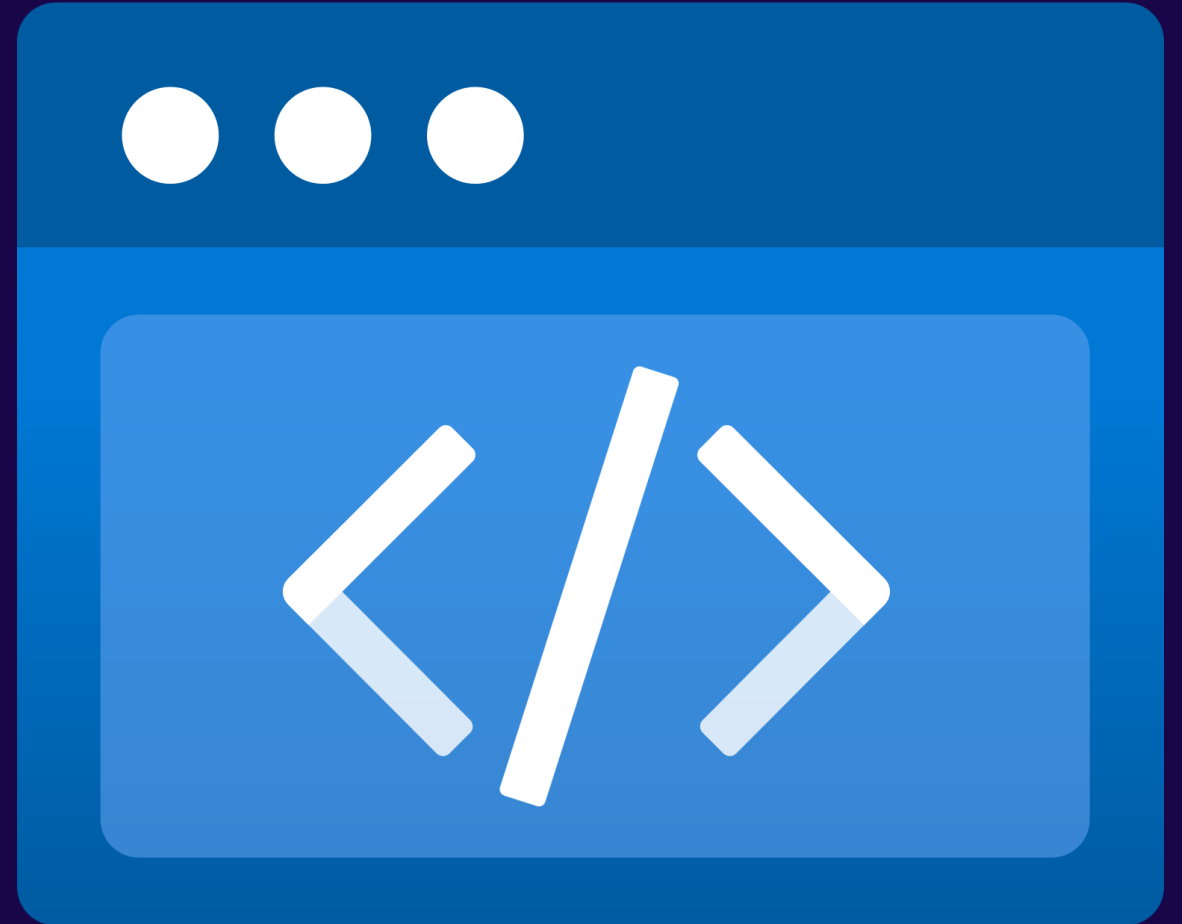
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# Azure Static Web Apps

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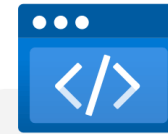
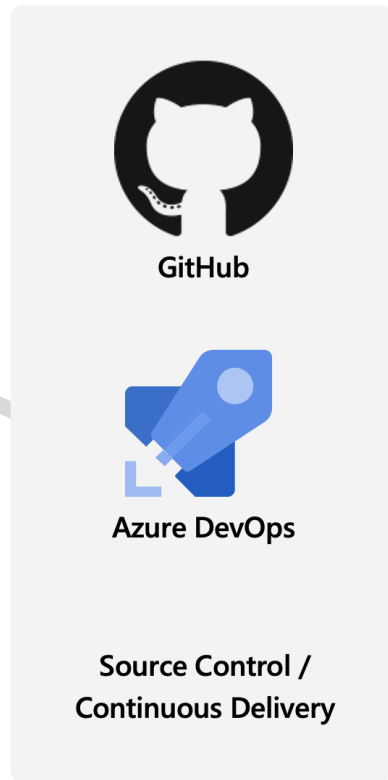


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IOIC  
IOIC  
Code changes



Azure Static Web Apps

**STATIC CONTENT**  
HTML, images, JavaScript, & CSS



**API**



Azure Functions



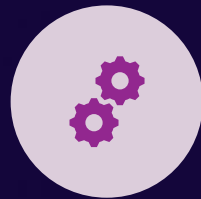
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Source <https://learn.microsoft.com/en-us/azure/static-web-apps/overview>

# Azure Static Web Apps



Globally-distributed hosting



Streamlined build and deployment



Custom domains and free SSL certificates



Built-in authentication and routing rules



Generated Staging Environments



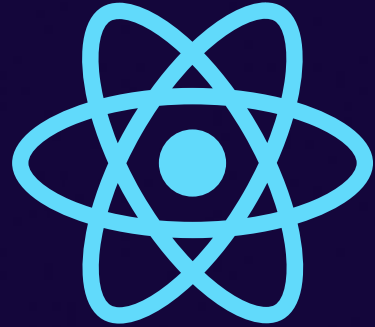
CLI Support



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# Supported Frameworks

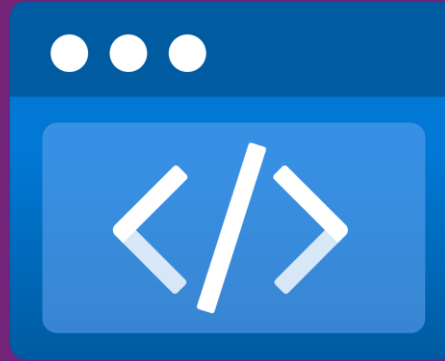
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Generally Available

# Azure Static Web Apps and .NET 7

.NET



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# Why Full Stack .NET?

Free and open source

Fast and cross-platform

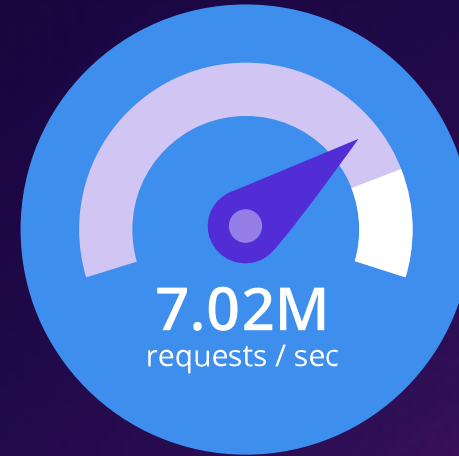
Modern and productive

Trusted and secure

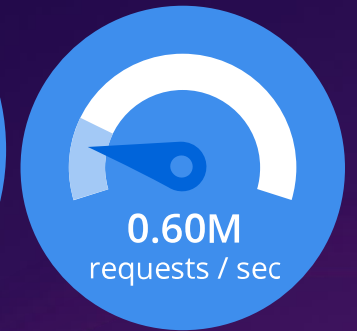
Supportive community



Java Servlet



.NET



Node.js

Data sourced from official tests available at [TechEmpower Round 21](#)



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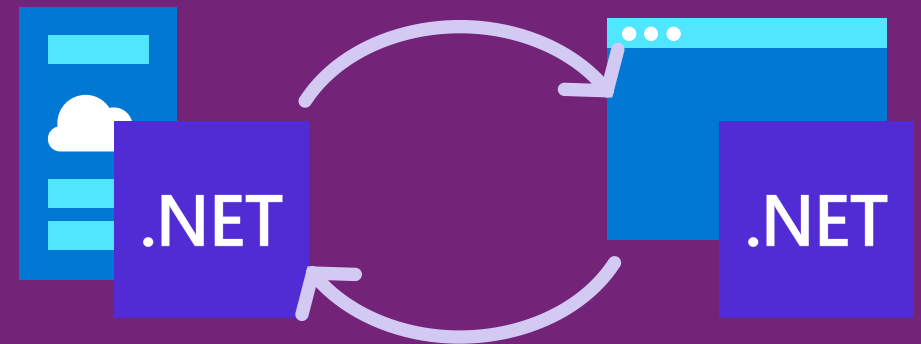
# Blazor WebAssembly

Full-featured frontend framework

Runs .NET client-side on  
WebAssembly

Shared component model across  
the server and client browser

Full stack .NET Web Applications



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# Part of ASP.NET Core

## Web UI

MVC

Razor  
Pages

SPA

Blazor

## Services

HTTP  
APIs

SignalR

Worker

gRPC

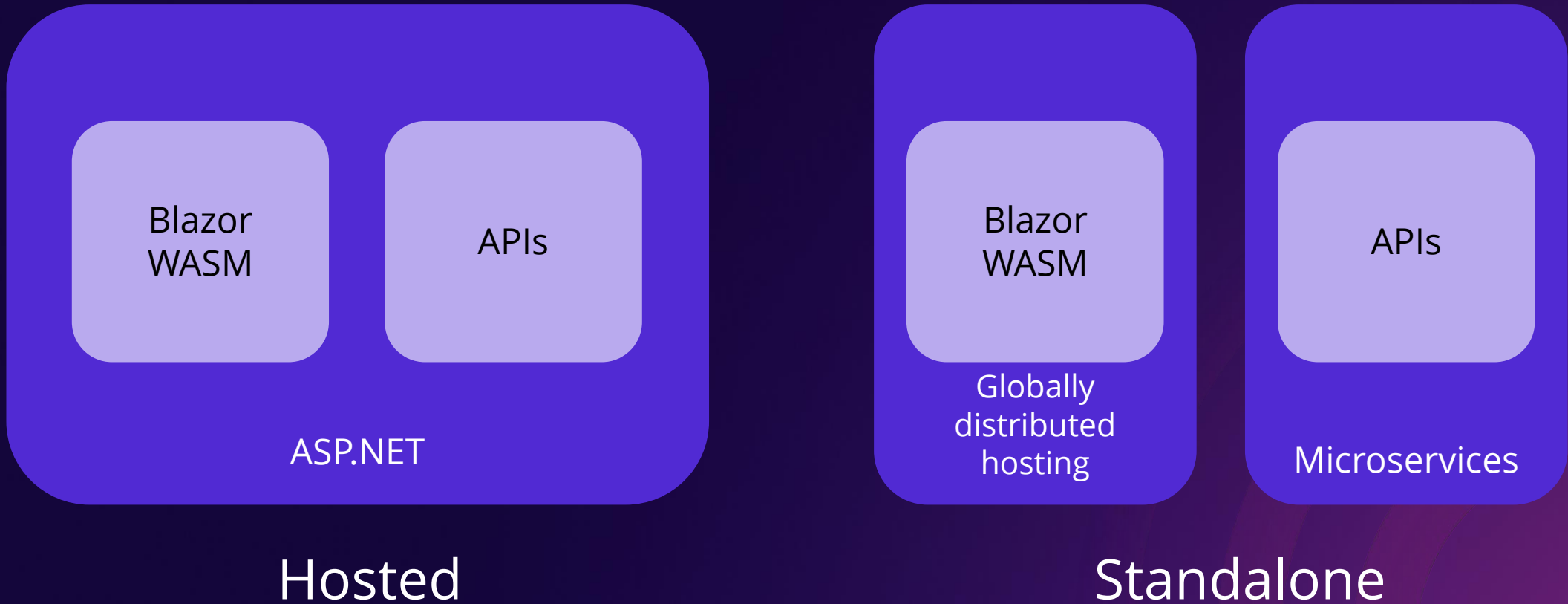


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# Hosting Blazor WebAssembly

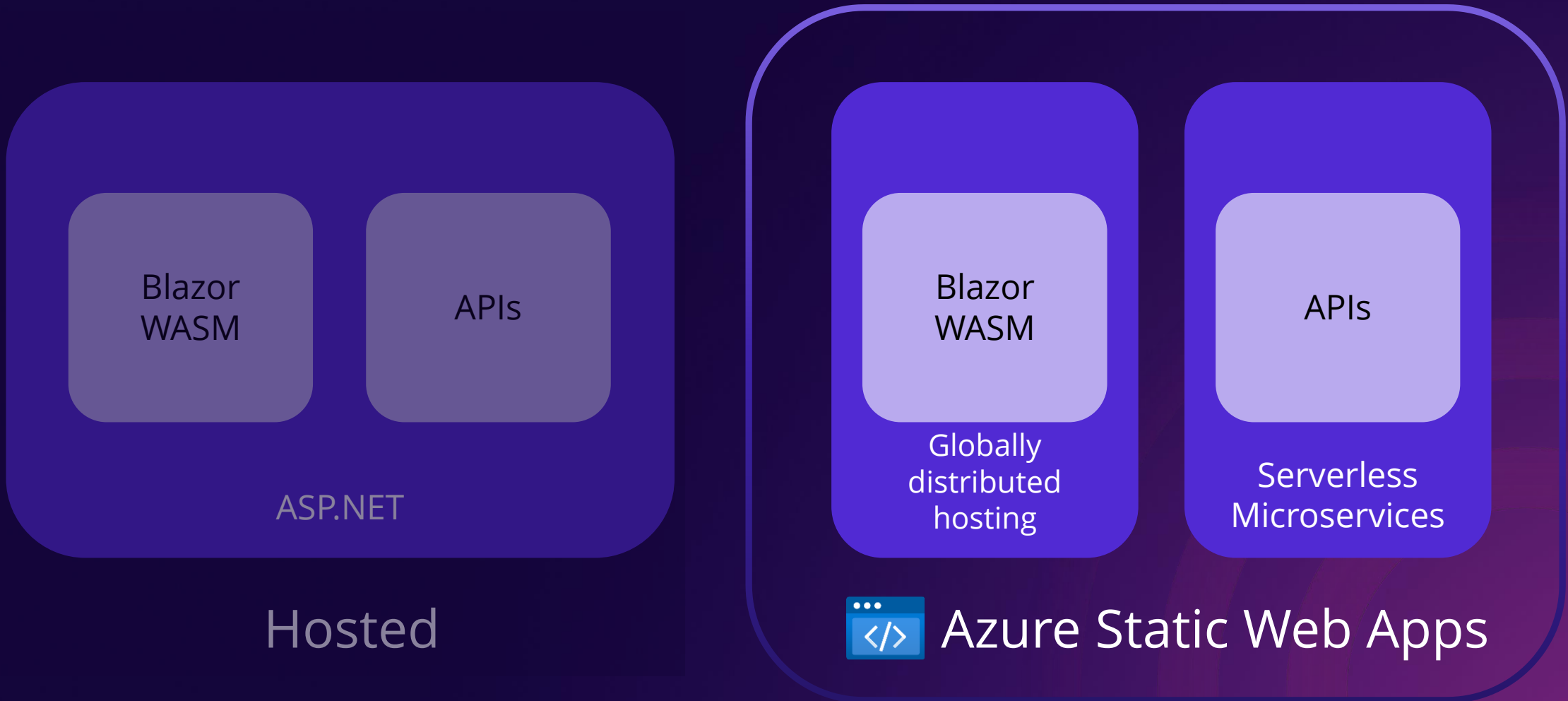


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# Hosting Blazor WebAssembly



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# Azure Functions and .NET

Serverless solution with .NET option

Run code blocks based on triggers

Event-driven automated scaling

No infrastructure management

Flexible pricing options

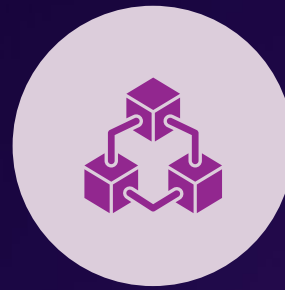
**Isolated Worker Model**



# Isolated Worker Model



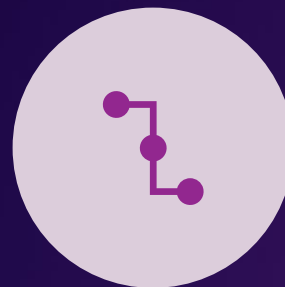
Isolated process from  
the functions runtime



More natural  
dependency injection



Full control of the  
process



Middleware support



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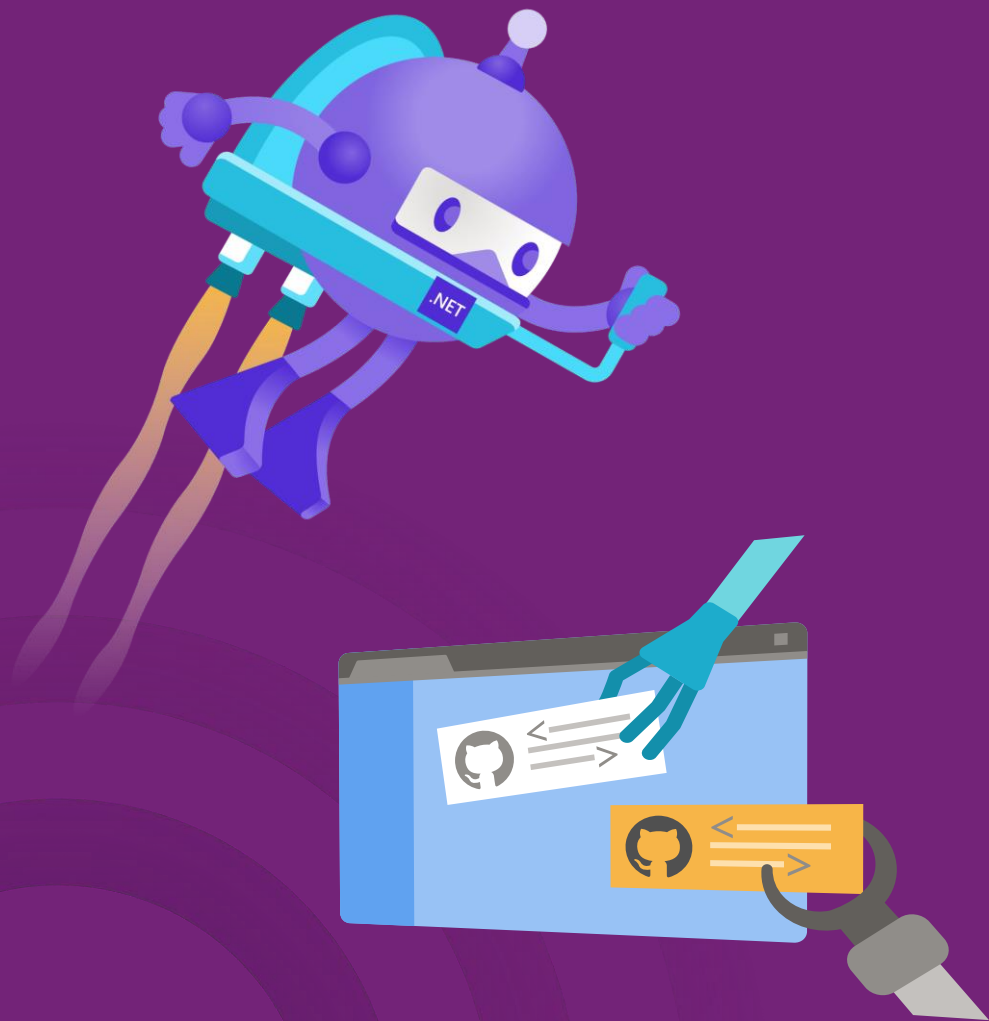


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# Demo







# Deployment

First class GitHub and Azure DevOps integration

Automatically build and deploy on code change

Staging versions based on Pull Requests

Globally Distributed Static Hosting

**Now GA:** GitLab and BitBucket Support



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# Static Web Apps CLI

All-in-One Local Development Tool For Azure Static Web Apps

[Get Started →](#)



## Install

Install the Azure Static Web Apps CLI using `yarn` or `npm`.



## Init

Setup your project using `swa init`



## Login

Authenticate with Azure services using `swa login`



## Start

Preview and debug your static web app using `swa start`.



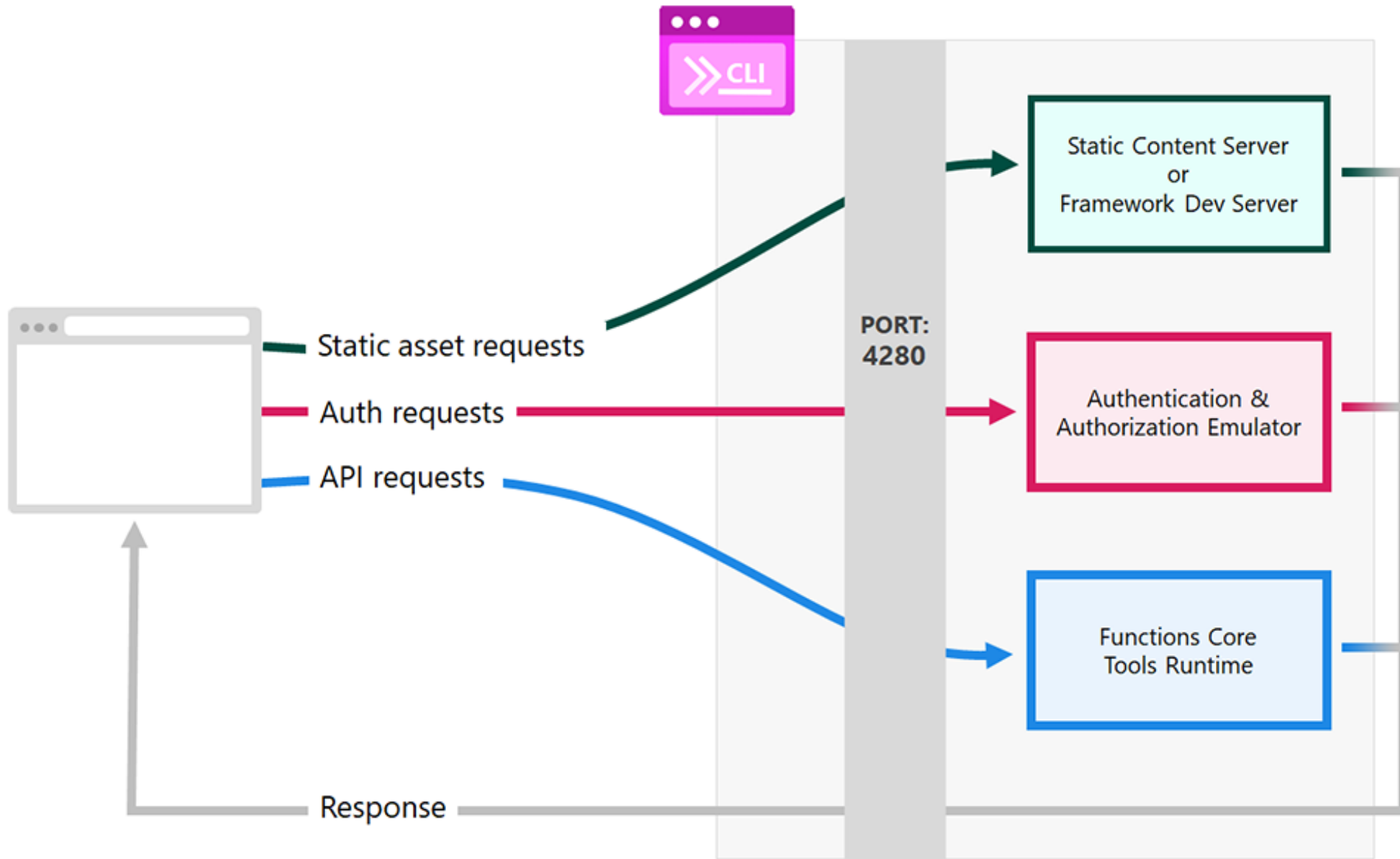
## Deploy SWA (cloud)

Build/deploy to multiple environments using `swa deploy`



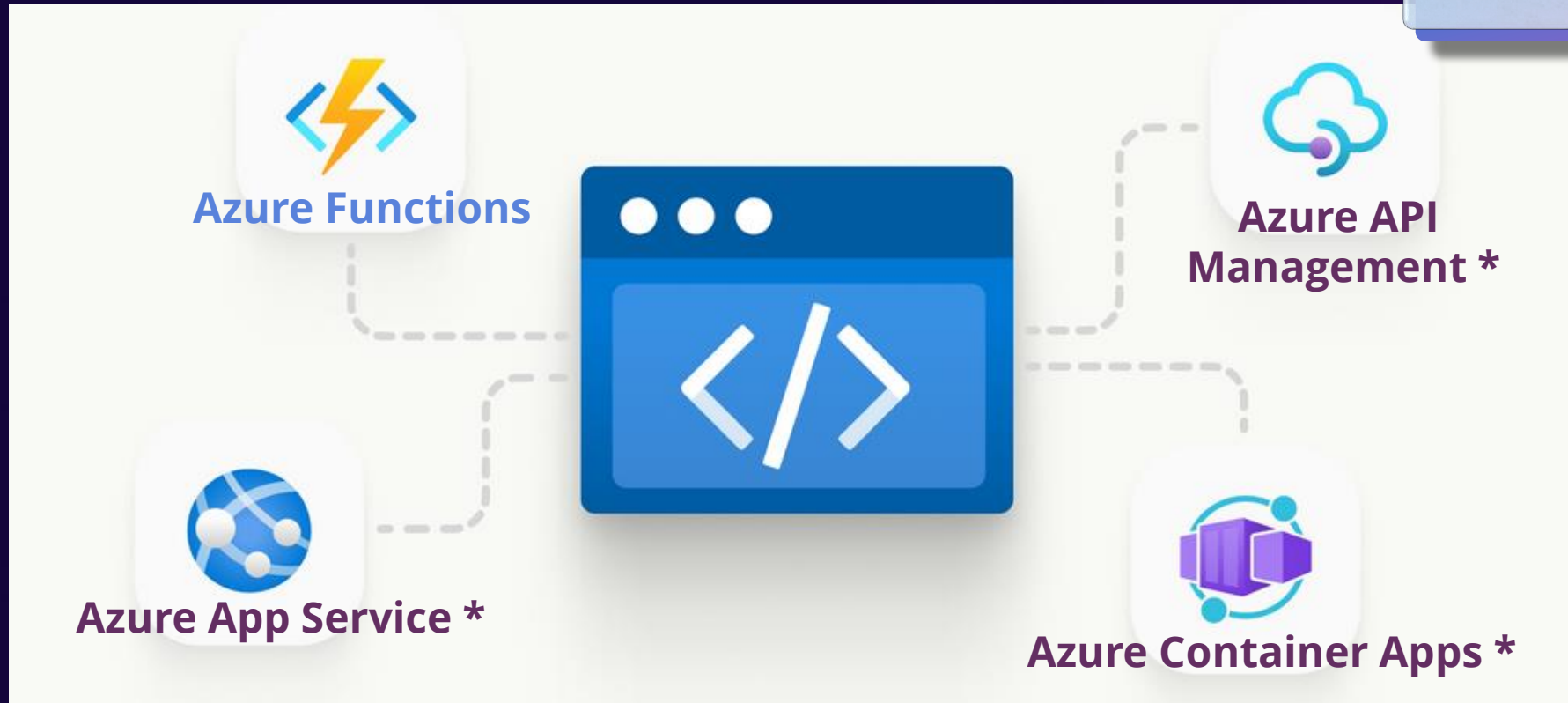
## Configure

Setup `environment variables` and `config settings`.



# New Backend API Options

\* Public Preview



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Source: <https://techcommunity.microsoft.com/t5/apps-on-azure-blog/new-api-backend-options-in-azure-static-web-apps/ba-p/3516882>

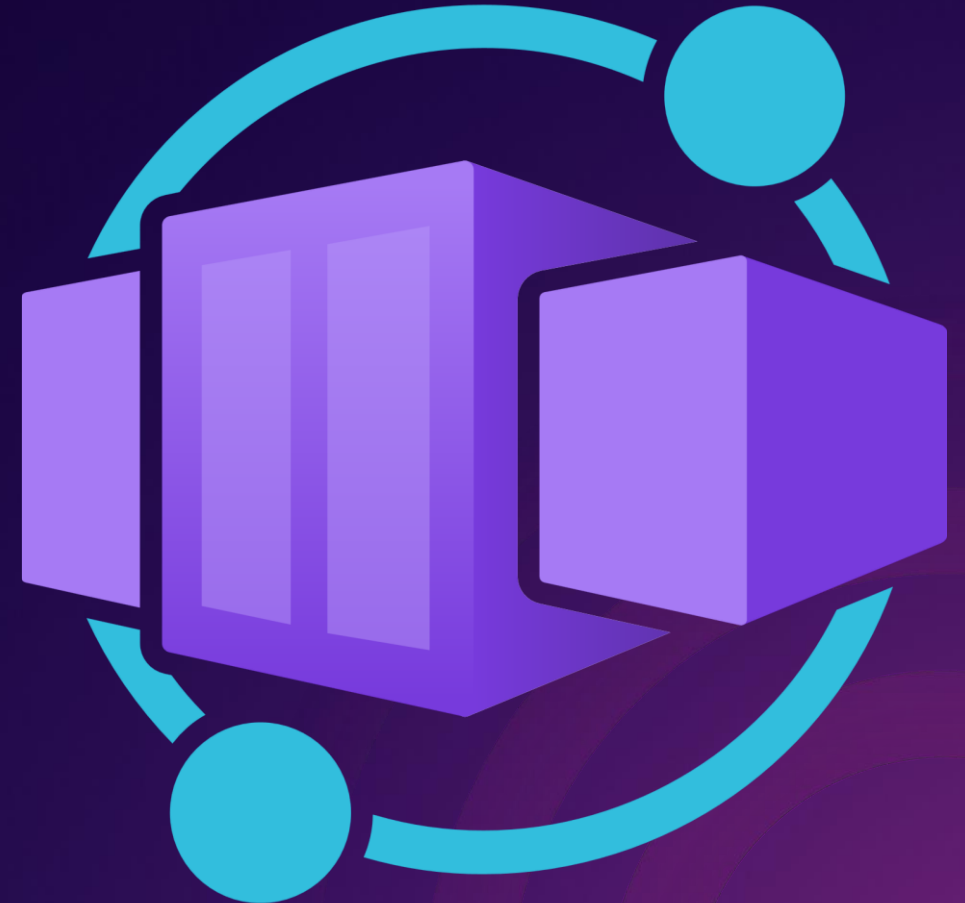
# Azure Container Apps

Serverless containers for  
microservices

ASP.NET Web APIs and Minimal APIs

Worker Service for background  
services

Focus on apps, not infrastructure



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# Demo



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# Enterprise-Grade Edge

Combines capabilities of Azure SWA, Azure Front Door, and Azure CDN

Caching assets at the edge

Global presence

Faster Page Loads

Enhanced Security



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# Authentication



Azure Active  
Directory



GitHub



Twitter



Custom  
Providers



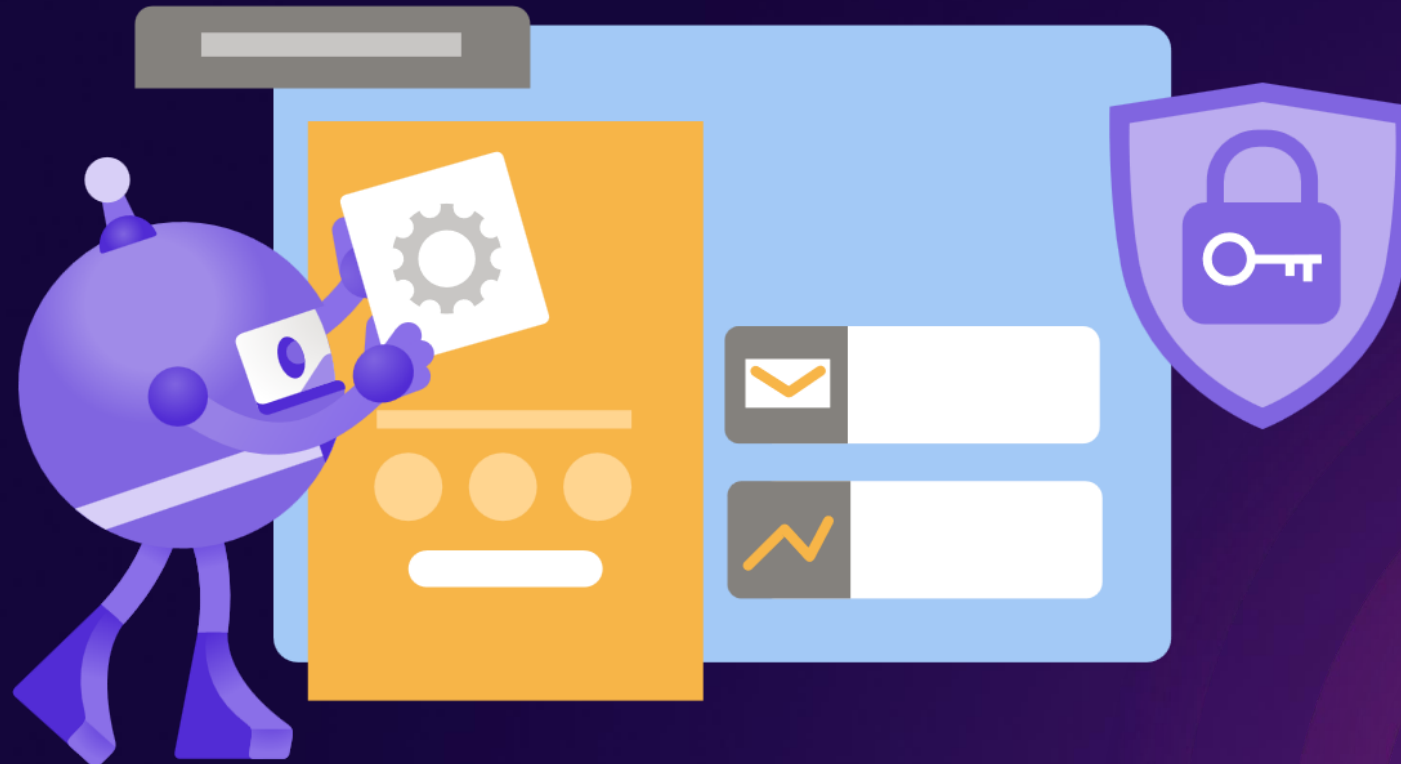
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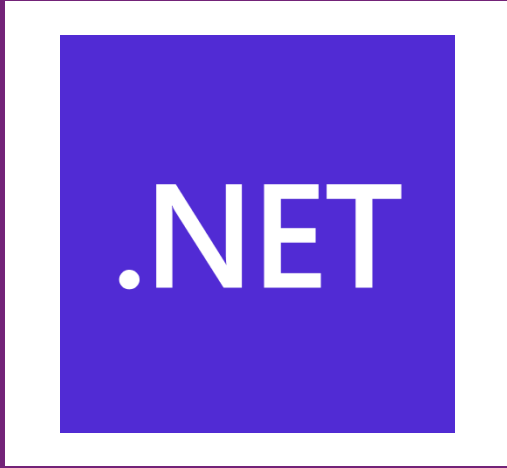
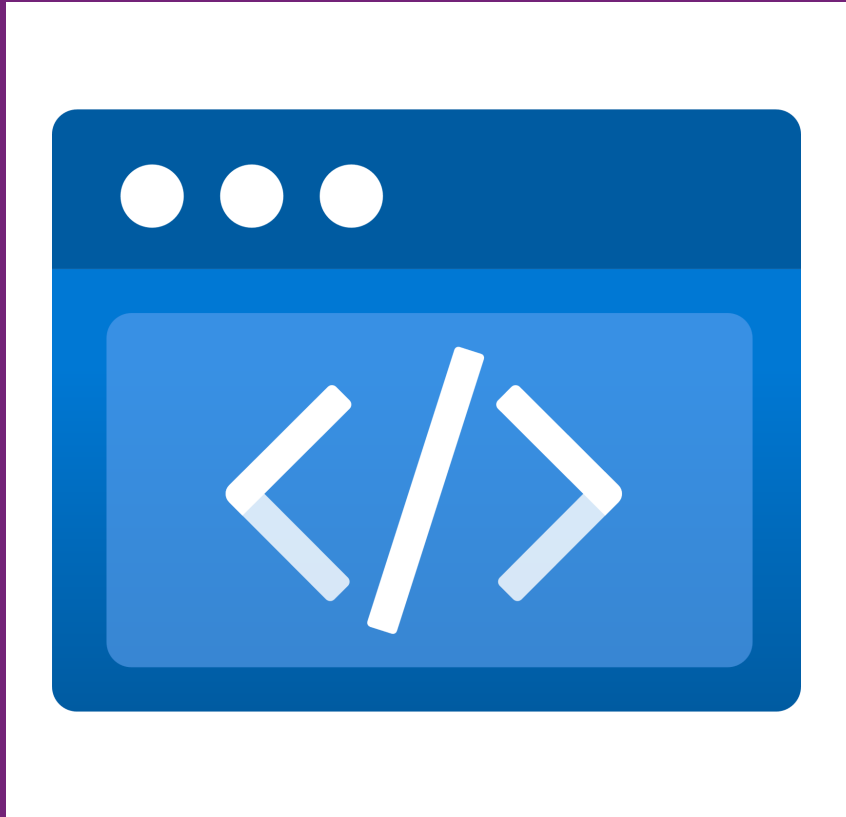


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# Demo





# Summary

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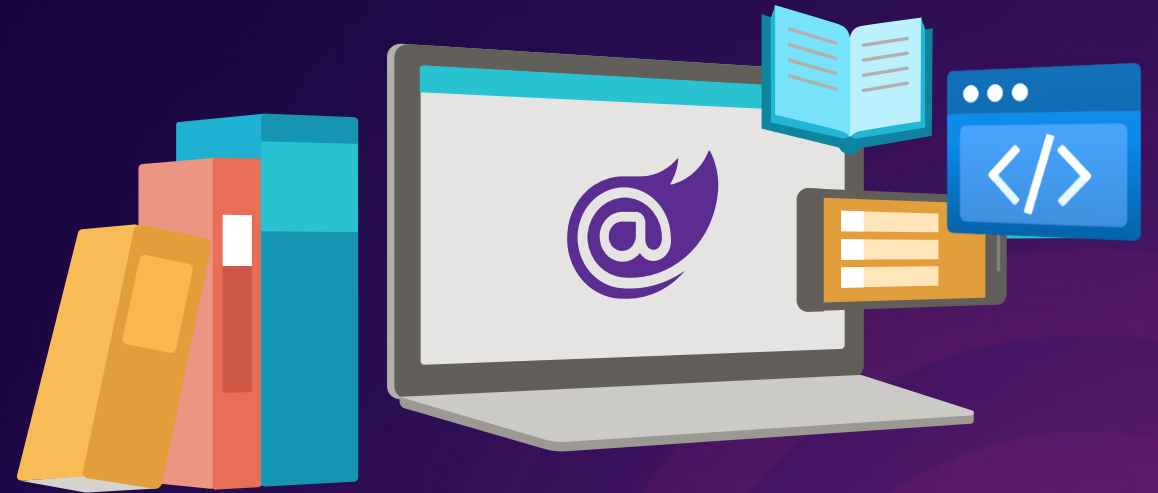
# Get started today

Full-stack .NET Serverless Web Apps

Streamlined CI/CD to Azure

Free plan option

Free learning resources



[aka.ms/SWA-Blazor](https://aka.ms/SWA-Blazor)



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# Thank you!



<https://bit.ly/ndclondon23-swa>



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