

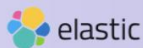
This presentation uses the [Pretendard](#) and [D2Coding](#) font.
Photo by [Rubaitul Azad](#) on [Unsplash](#)



.NET Conf 2024 x Seoul

Empowering Tomorrow - Full Stack, AI Enhanced, Developer Focused

Sponsored by 



 INFRAGISTICS



**.Net
Dev**

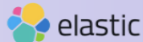
Build Cloud-Native Apps with .NET Aspire

유저스틴 | Senior Cloud Advocate | Microsoft

github: @justinyoo | linkedin: @justinyoo



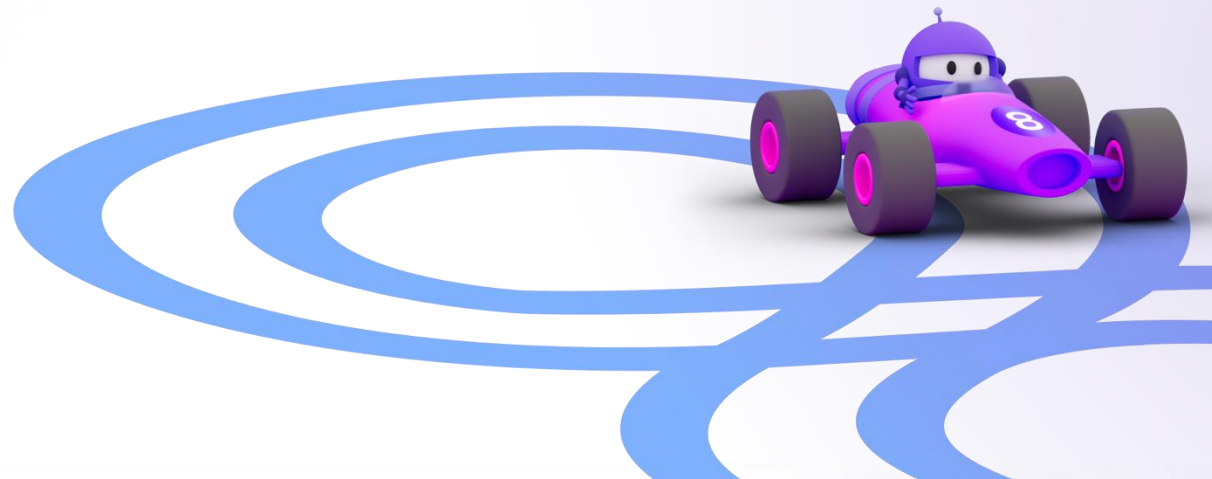
Sponsored by 



 INFRAGISTICS



.NET in Cloud Native



Health checks
Kestrel
HttpClientFactory
gRPC
Container builds
Native AOT



Health checks
Kestrel
HttpClientFactory
gRPC
Container builds
Native AOT

How to put them together properly?

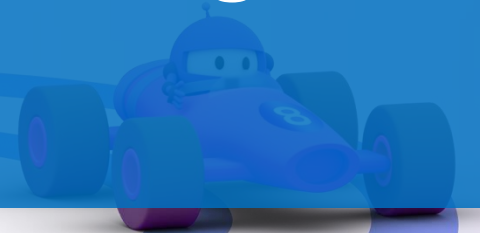


How to get my web app to talk to API app?
What should I do with dev/production config?
Should/shouldn't I use containers?
What should I do with E2E logging/monitoring?

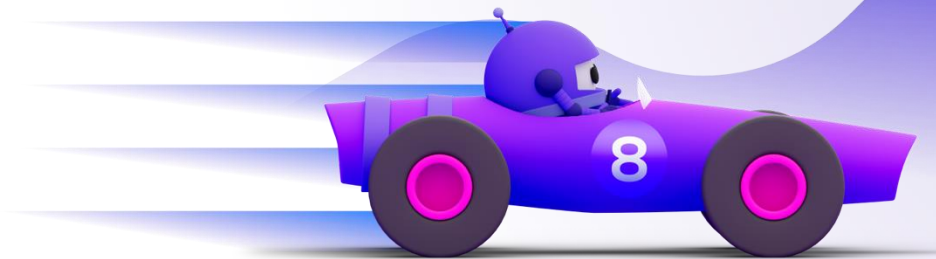


How to get my web app to talk to API app?
What should I do with dev/production config?
Should/shouldn't I use containers?
What should I do with E2E logging/monitoring?

It's not fun at all



What's Aspire?



How to add Redis Cache to Web App?

Add StackExchange.Redis package

Add.AspNetCore.HealthChecks.Redis package

Add Redis in DI and configure from appsettings.json

Add Redis health check for availability

Shim Redis client to output logging to ILogger

Do plumbing Redis client events/profilers to metrics

Do wrapping Redis client with resiliency policy & logic



Too many bits & pieces to take care of



How to add “Aspire” Redis Cache to Web App?

Add `Aspire.StackExchange.Redis.OutputCaching` package

Add `builder.AddRedisOutputCache("cache");`

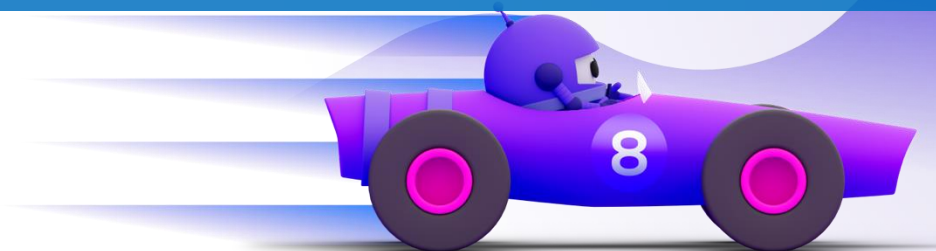
Override default configuration through `appsettings.json` (Optional)



.NET Aspire is:

An opinionated, cloud ready stack

building observable, production ready, distributed applications



.NET Aspire is:

An opinionated, cloud ready stack

building observable, production ready, distributed applications

Delivered through a collection of NuGet packages

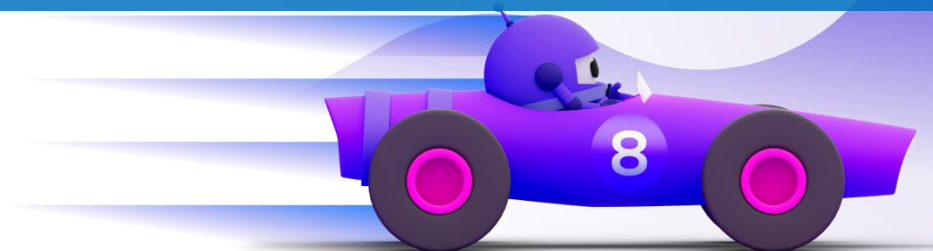
handle specific cloud-native concerns



.NET Aspire provides:

Orchestration

for running and connecting multi-project apps and dependencies



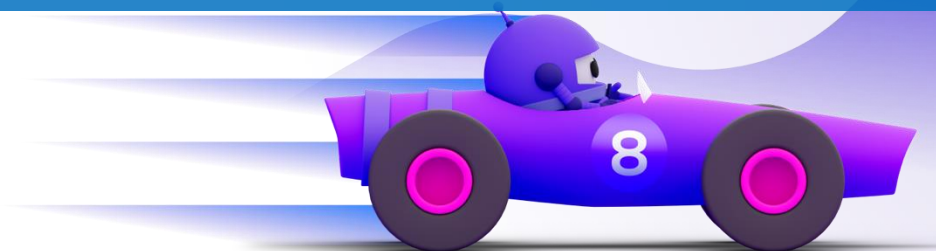
.NET Aspire provides:

Orchestration

for running and connecting multi-project apps and dependencies

Components

NuGet packages with standardized interfaces



.NET Aspire provides:

Orchestration

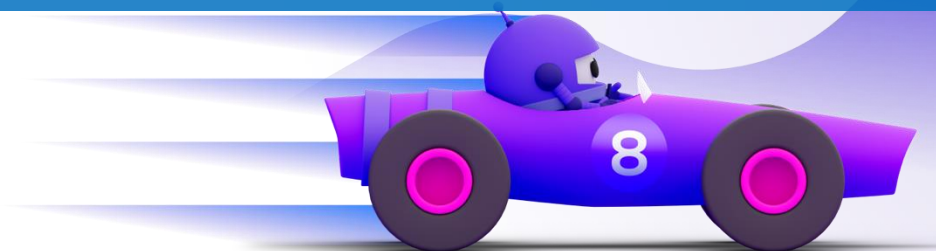
for running and connecting multi-project apps and dependencies

Components

NuGet packages with standardized interfaces

Tooling

help you create and interact with .NET Aspire apps



.NET Aspire projects:

`dotnet workload install aspire`



.NET Aspire projects:

```
dotnet new aspire-starter
```



.NET Aspire projects:

- AspireSample.WebApp
- AspireSample.ApiApp



.NET Aspire projects:

- AspireSample.WebApp
- AspireSample.ApiApp
- AspireSample.AppHost
- AspireSample.ServiceDefaults



.NET Aspire projects:

`dotnet new aspire`



.NET Aspire projects:

- AspireSample.AppHost
- AspireSample.ServiceDefaults



Demo – localhost



Using Docker Desktop Using GitHub Codespaces



Demo – Serverless Container Service





Azure Container Apps



AWS Fargate



Google Cloud Run



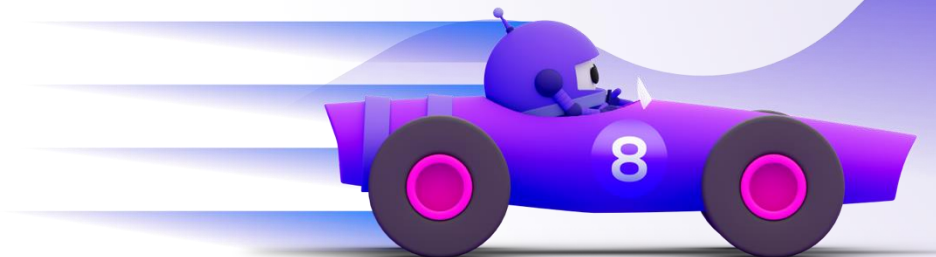
Demo – Managed Kubernetes Cluster



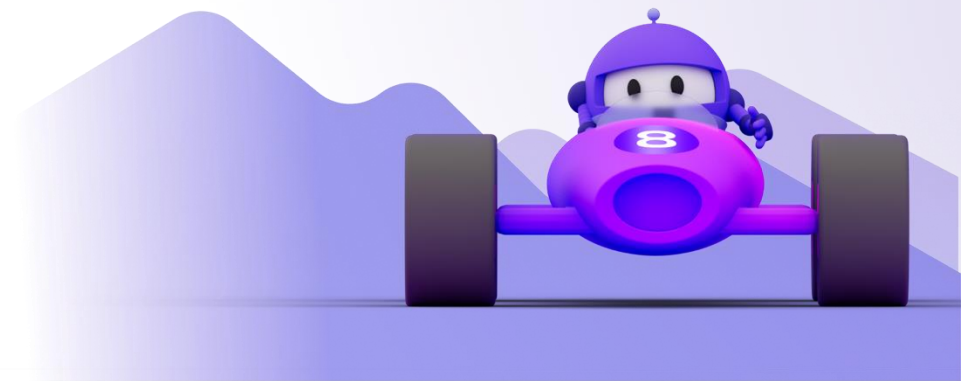
- ✓ Azure Kubernetes Service
- ✓ Amazon Elastic Kubernetes Service
- ✓ Google Kubernetes Engine
- ✓ Any managed Kubernetes cluster



- 👉 Azure Kubernetes Service
- 👉 Amazon Elastic Kubernetes Service
- ✅ Google Kubernetes Engine
- ✅ Any managed Kubernetes cluster



Summary



Intro to .NET Aspire



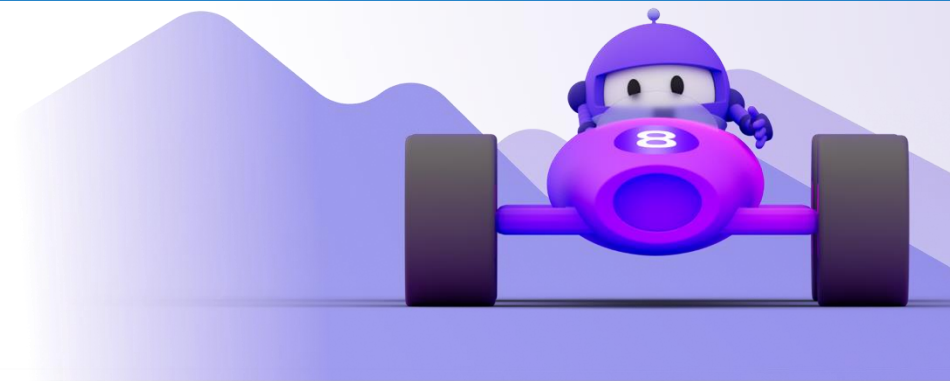
Intro to .NET Aspire

Deploy apps to serverless containers



Intro to .NET Aspire

- Deploy apps to serverless containers
- Deploy apps to managed k8s cluster



.NET 8

<https://aka.ms/get-dotnet-8>

.NET Aspire

<https://aka.ms/dotnet/aspire>

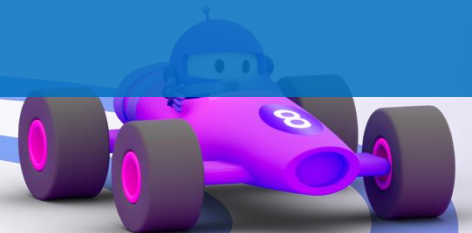
.NET Aspire samples

<https://aka.ms/dotnet/aspire/samples>



.NET Aspire Workshop

aka.ms/aspireinadaykr/workshop



Thank you!



Presented by

