# Introduction to Microsoft Orleans

for your cloud native applications

Johnny Hooyberghs

# Here's Johnny


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Microsoft® Most Valuable Professional

- Passionate Developer
- Principal Software Consultant/Architect (.NET)
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https://github.com/Djohnnie/IntroductionToOrleans-TechoramaCafe-2022

geert (geert)
killer (djohnnie)
geert (geert)

# CSharpWars

```
var step = LoadFromMemory<Int32>("STEP");
if( step % 3 == 0 )
{
    TurnLeft();
}
else
{
    WalkForward();
}
step++;
StoreInMemory<Int32>("STEP", step);
```

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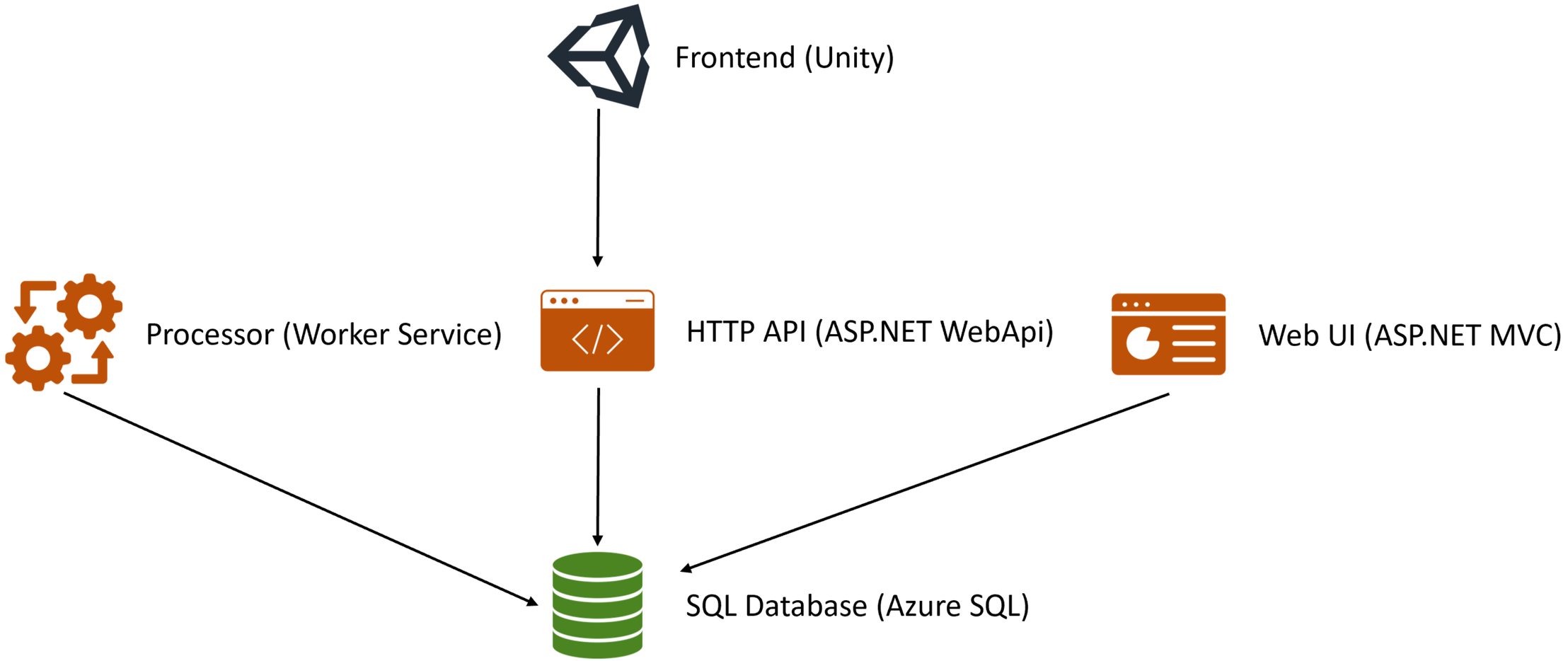
# CSharpWars (first version)

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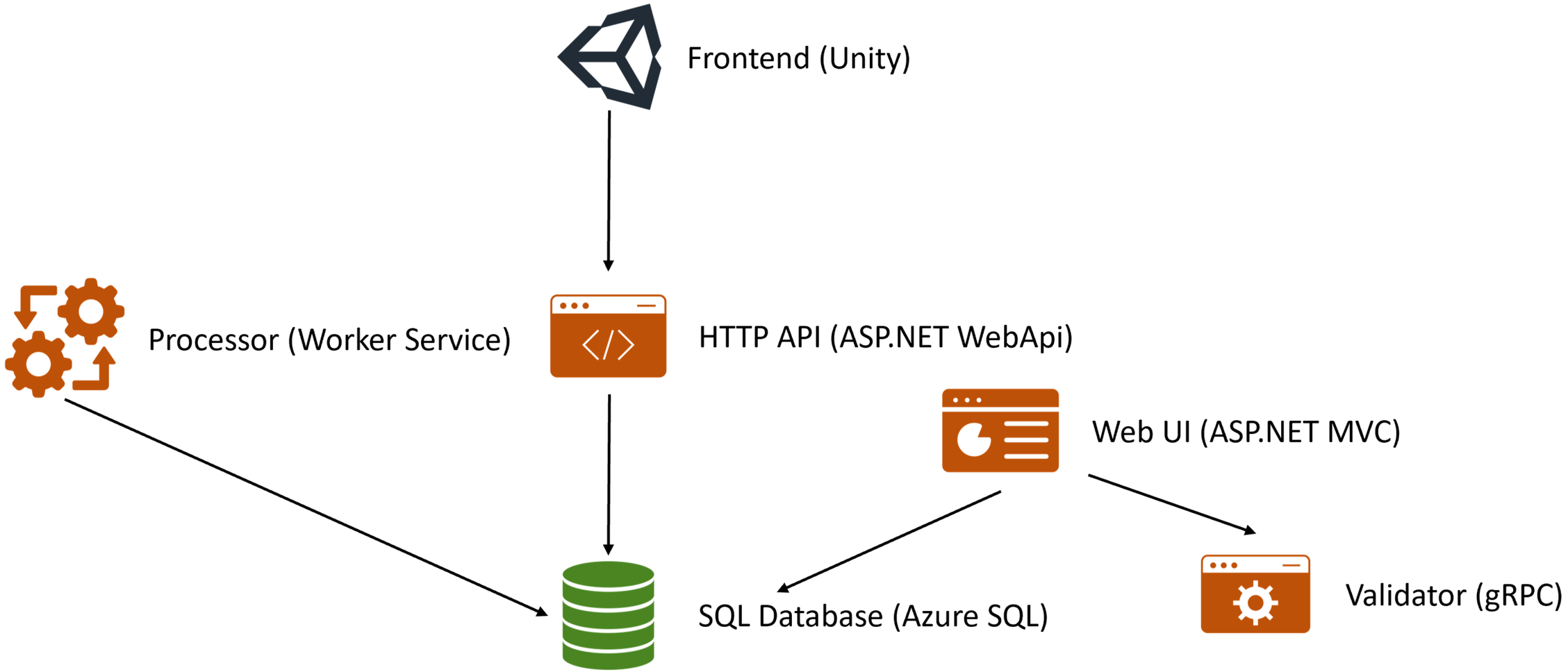
# CSharpWars (second version)

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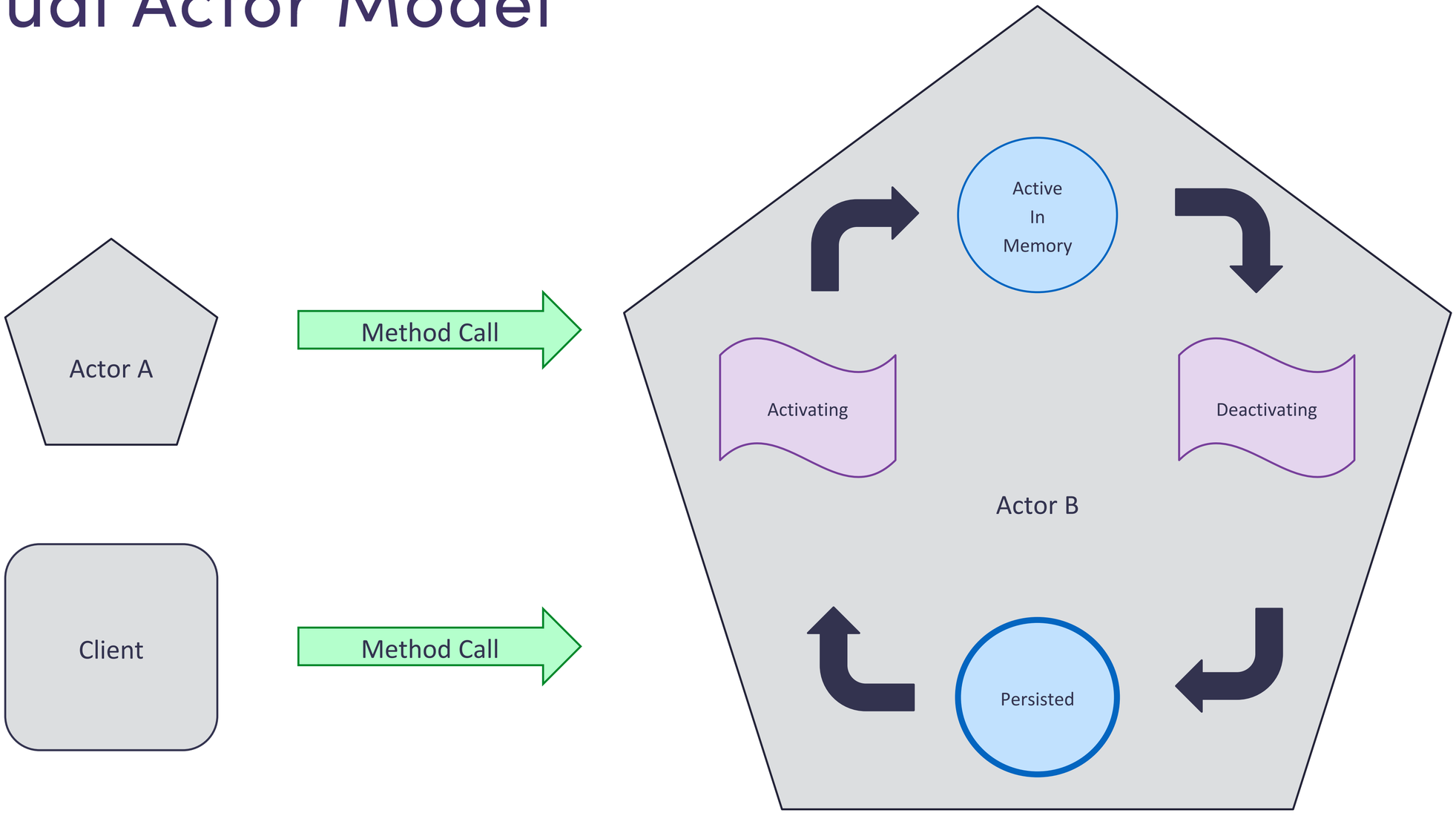
# Virtual Actor Model

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# Grains

player/djohnnie

In-Memory or persisted

(Player)Grain = identity + behavior [ + state]

PlayerGrain : Grain, IPlayerGrain

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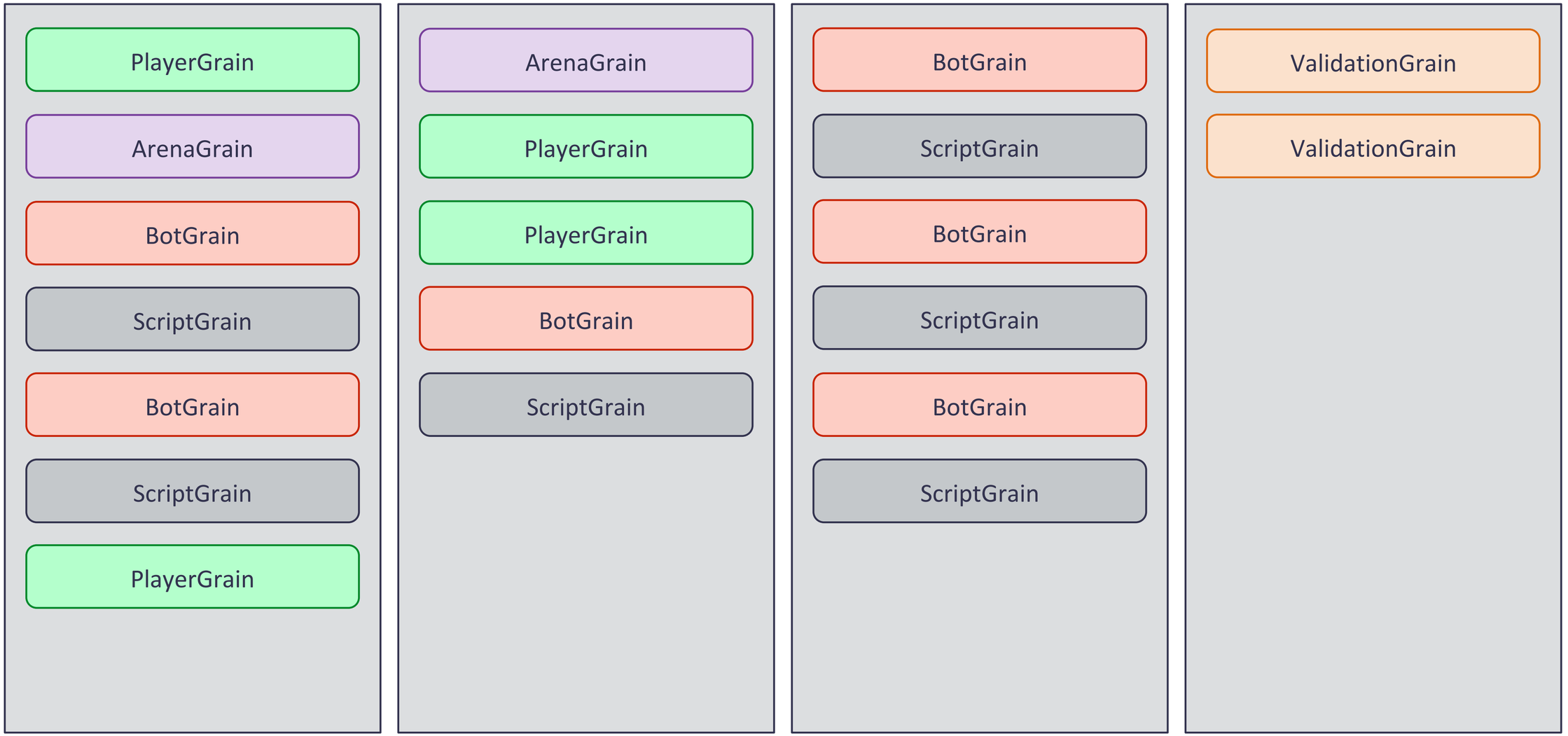
# Silos

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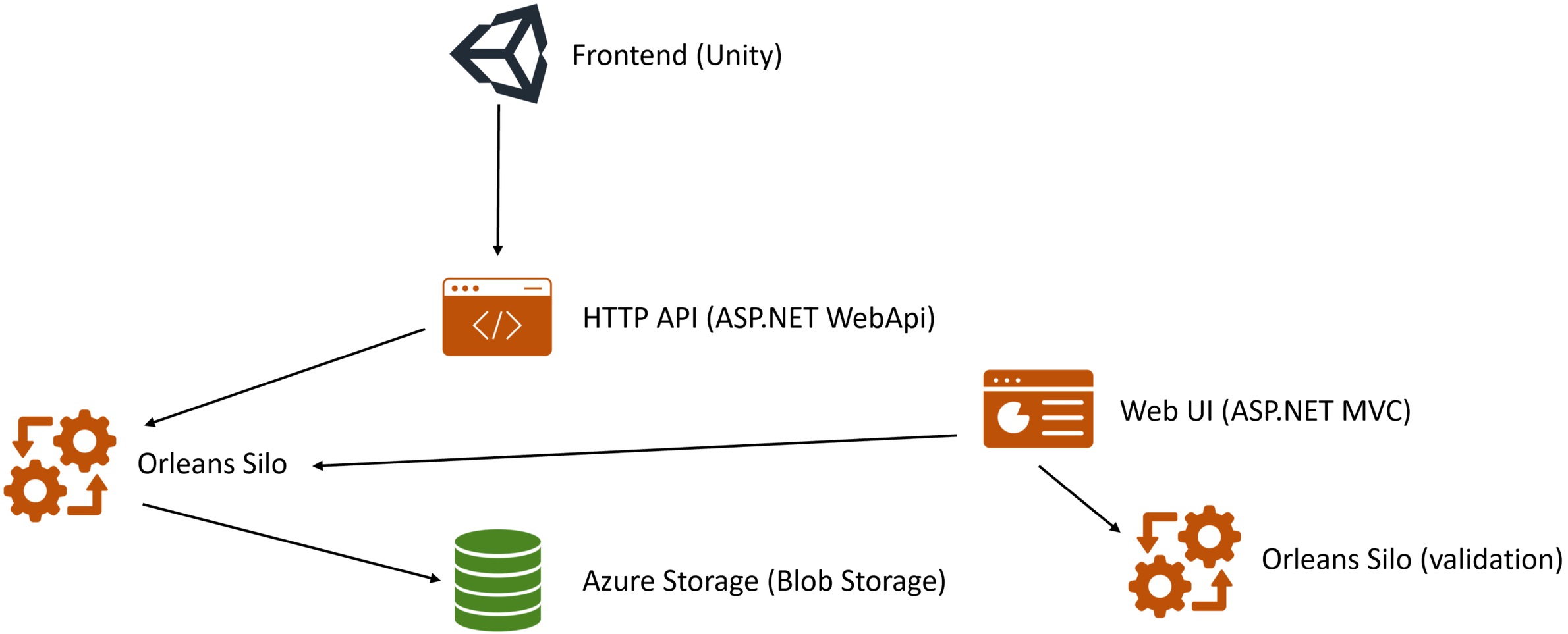
# CSharpWars (Orleans version)

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# CSharpWars demo

Try it for yourself: https://web.csharpwars.com

# Grains

player/djohnnie

In-Memory or persisted

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PlayerGrain : Grain, IPlayerGrain

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# Grains

- Grain Identity
- Persistence & State
- Timers and Reminders
- Placement
- Activation GC

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# Silos

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# Silos

- Hosting
- Clients
- Heterogeneous silos

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# Questions?


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