



Schaalbare .NET applicaties met Microsoft Orleans

**Johnny Hooyberghs**

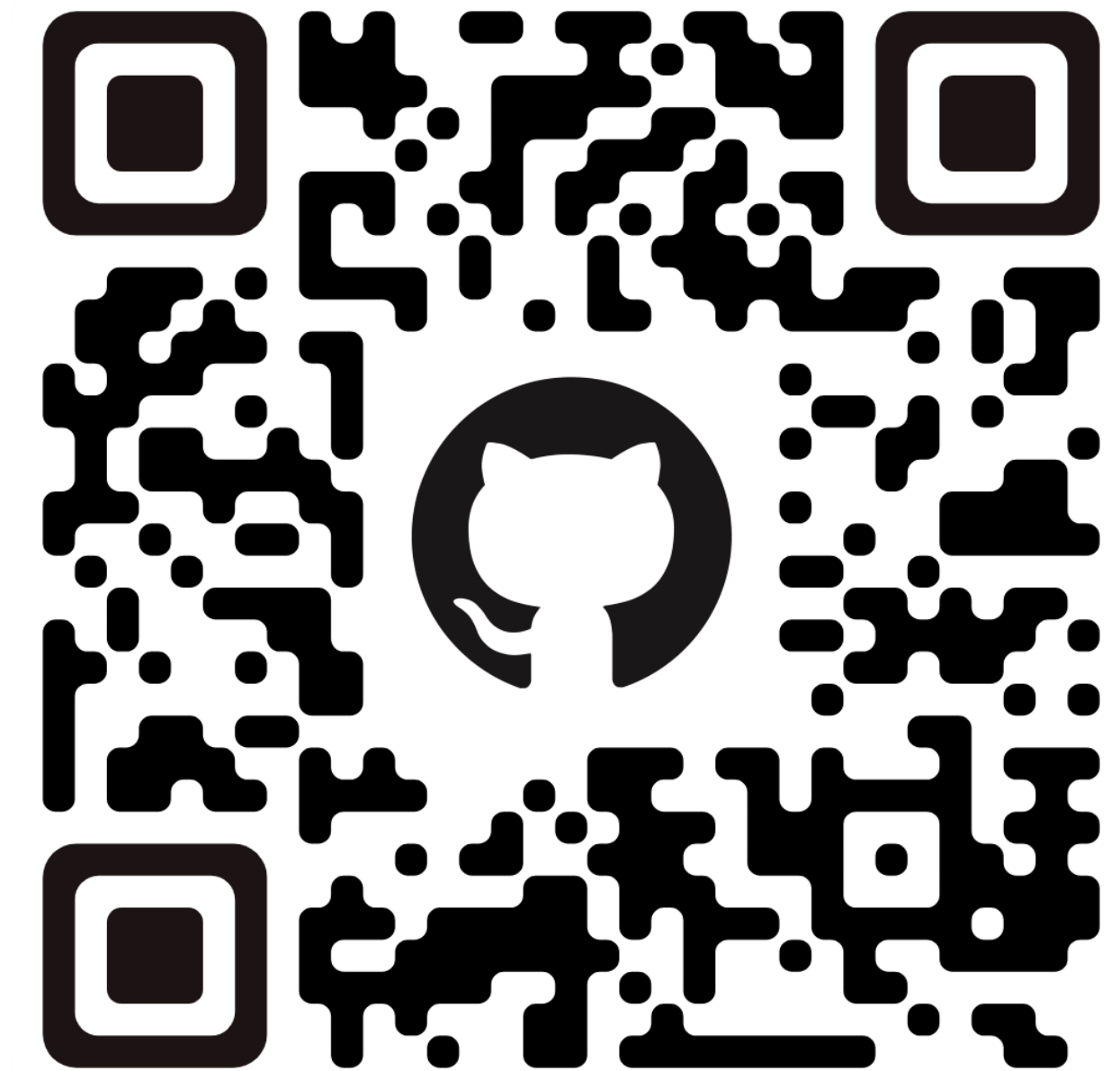
# Here's Johnny

 Johnny Hooyberghs

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- Gepassioneerde ontwikkelaar
- Software Consultant/Architect (.NET)
- Microsoft MVP, Developer Technologies
- Managing partner bij Involved

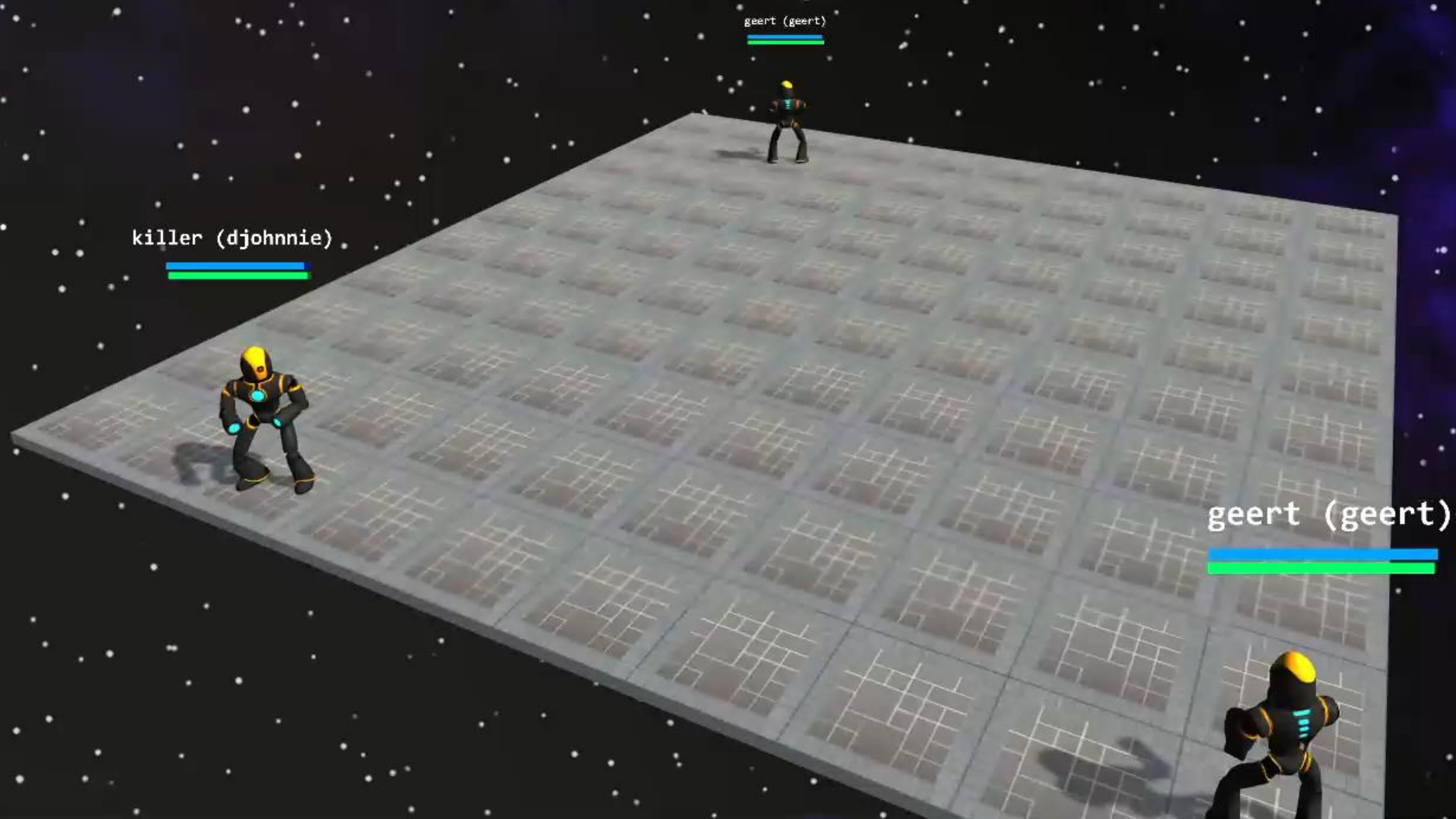




killer (djohnnie)

geert (geert)

geert (geert)

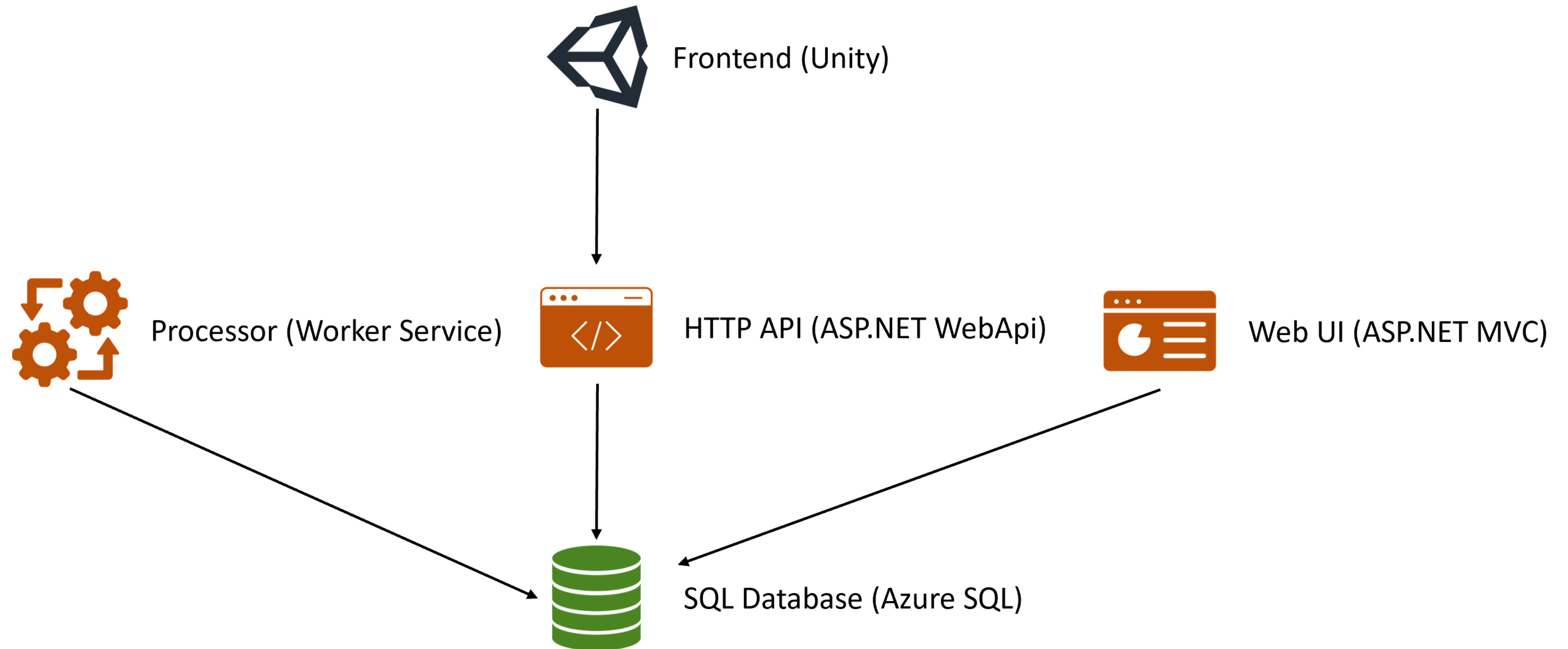


# CSharpWars

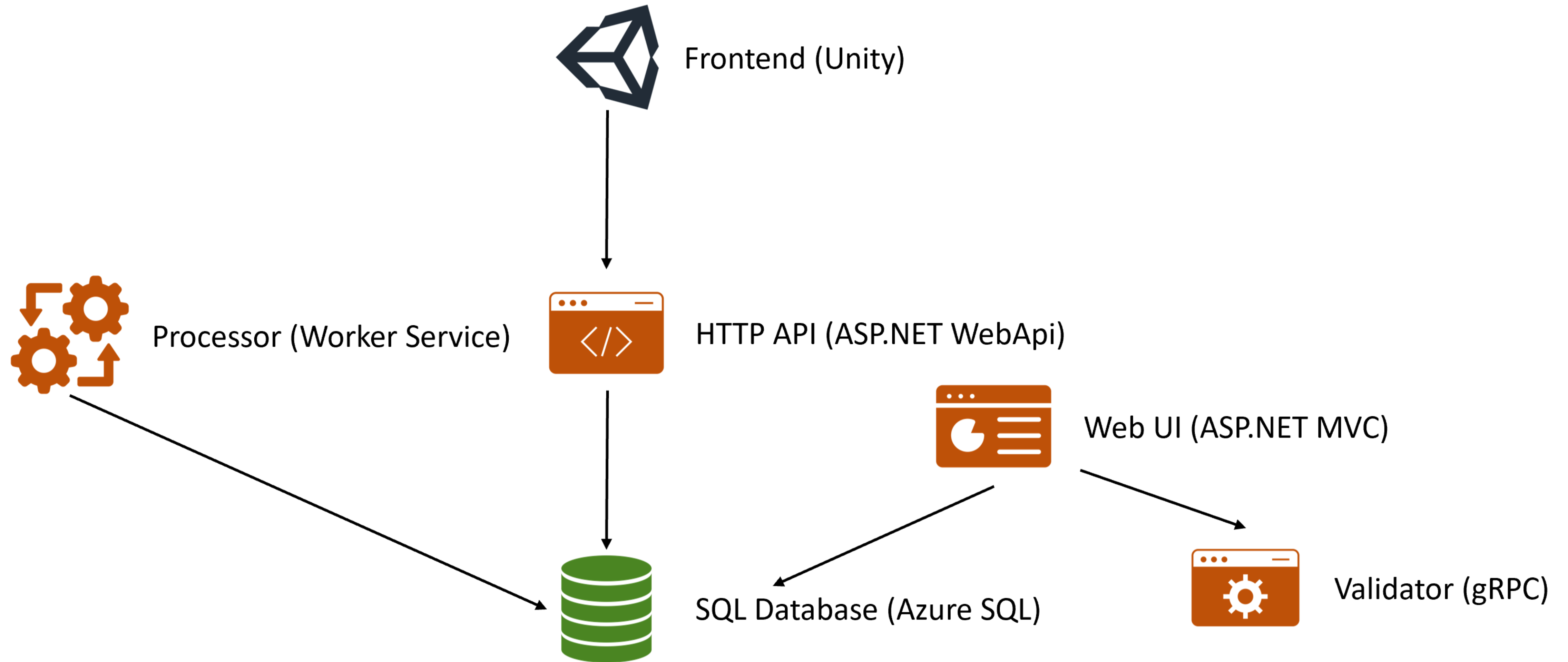
```
var step = LoadFromMemory<Int32>("STEP");  
if( step % 3 == 0 )  
{  
    TurnLeft();  
}  
else  
{  
    WalkForward();  
}  
step++;  
StoreInMemory<Int32>("STEP", step);
```



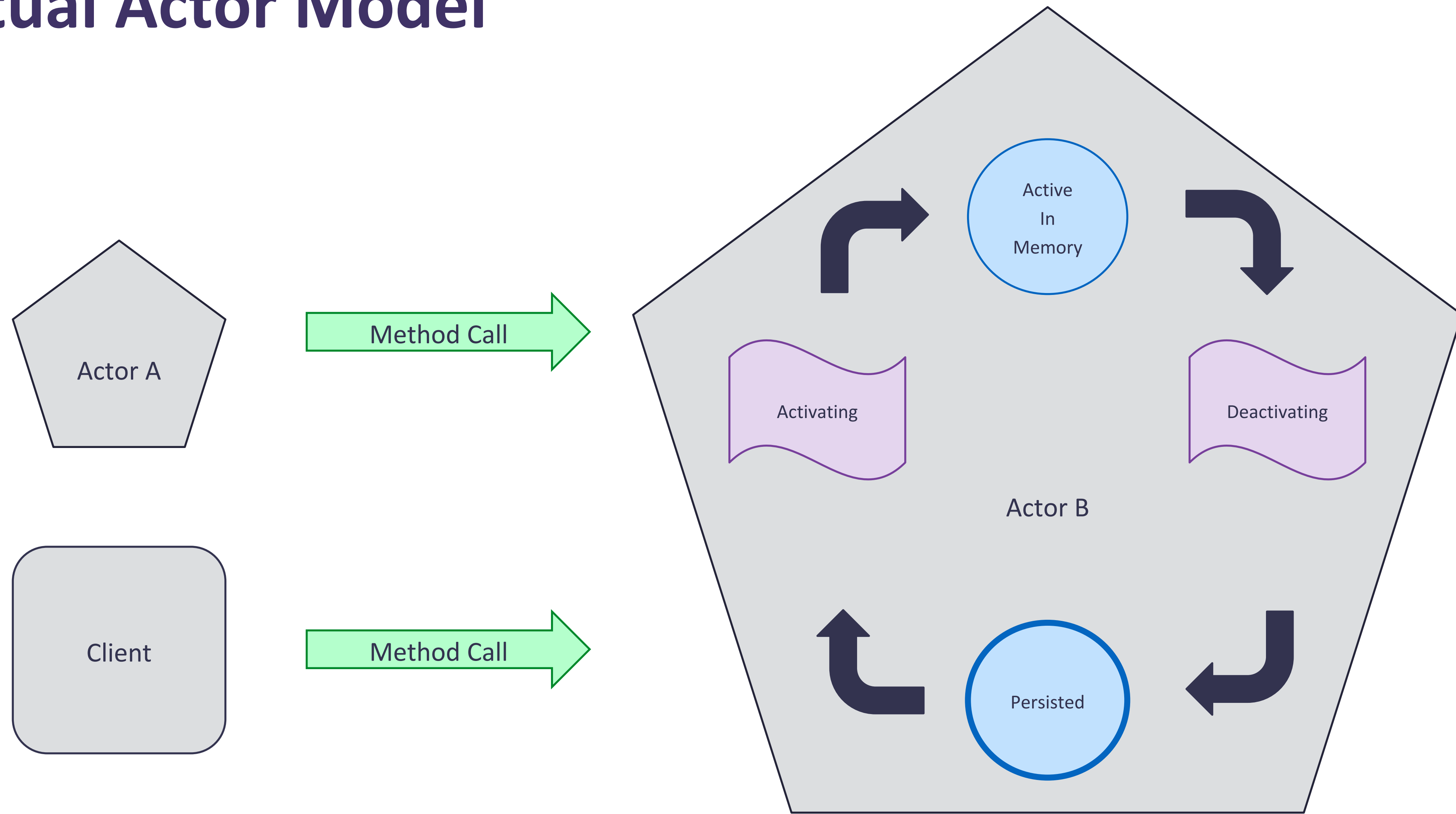
# CSharpWars (eerste versie)



# CSharpWars (tweede versie)



# Virtual Actor Model



# Grains

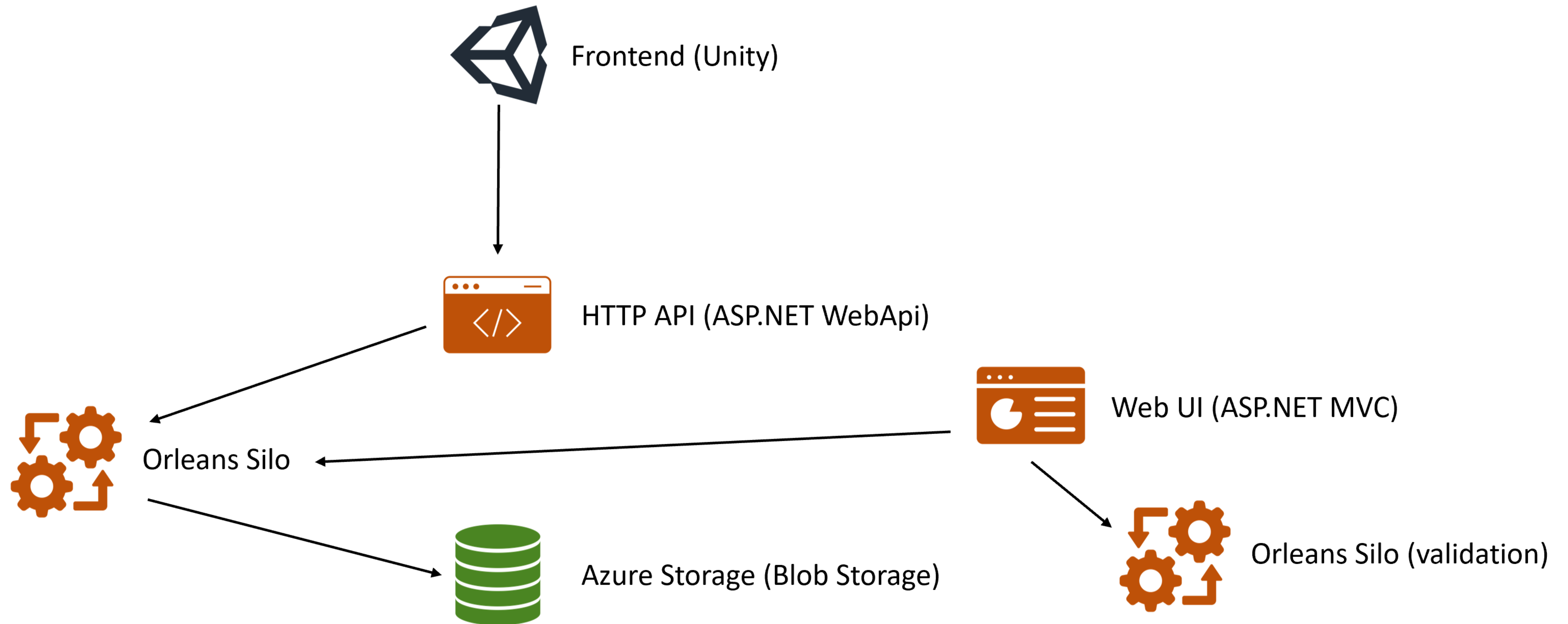
(Player)Grain = <sup>player/djohnnie</sup>  
identity + behavior [ <sup>In-Memory or persisted</sup>  
+ state ]  
PlayerGrain : Grain, IPlayerGrain



# Silos



# CSharpWars (Orleans versie)



# CSharpWars demo

Test het zelf uit: <https://web.csharpwars.com>



# Grains

(Player)Grain = <sup>player/djohnnie</sup>  
identity + behavior [ <sup>In-Memory or persisted</sup>  
+ state ]  
PlayerGrain : Grain, IPlayerGrain



# Grains

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

# Silos



# Silos

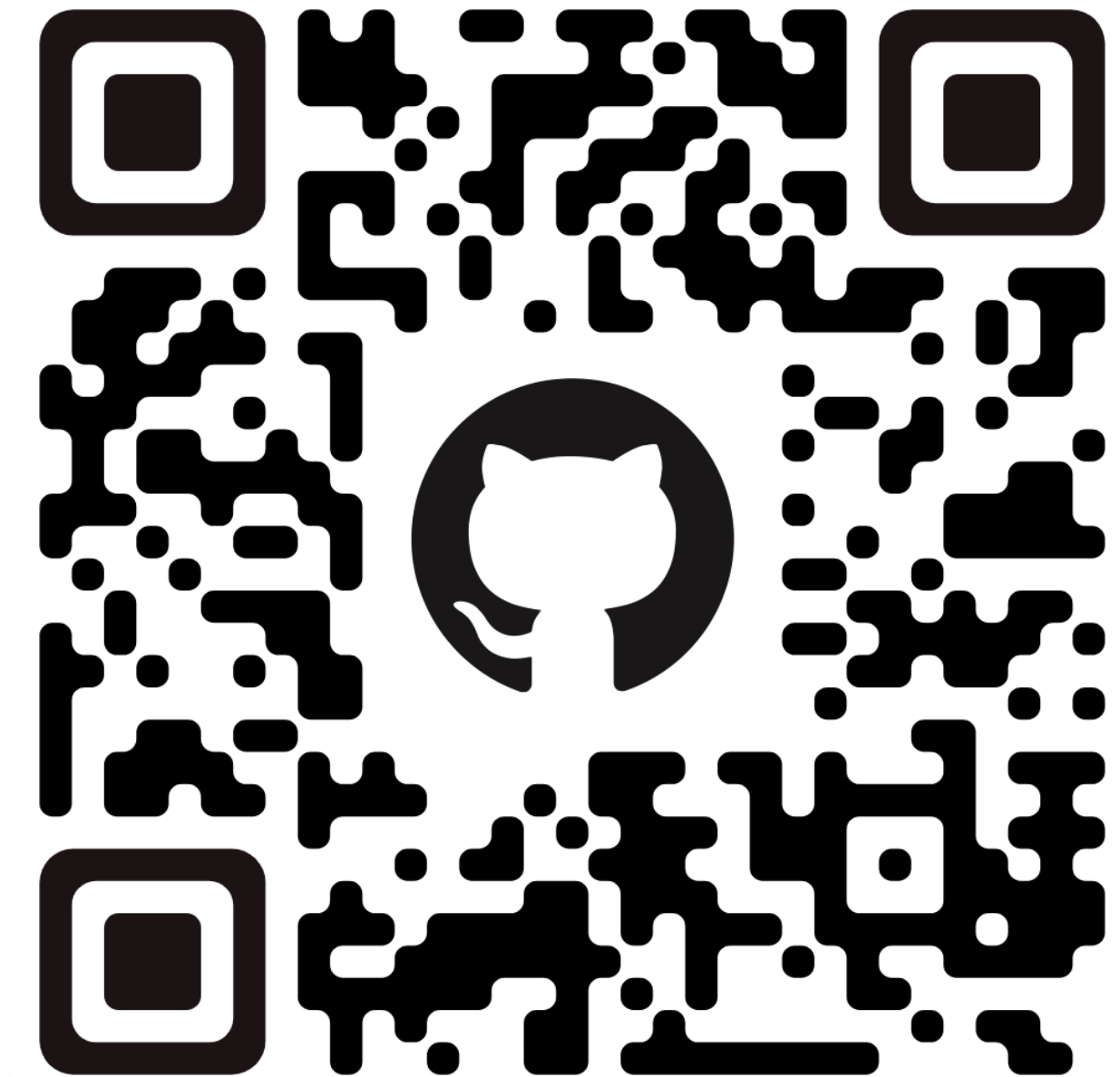
- Hosting
- Clients
- Heterogeneous silos

# Vragen?

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<https://github.com/Djohnnie/BuildingCloudNativeApplicationsUsingOrleans-APHogeschool-2023>