Building an educational game with .NET Core and Unity

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Why CSharpWars?

- Gamification to teach basic C# knowledge in school
- Learn the Unity Game Engine
- Play with the Microsoft Compiler Platform (Roslyn)
- Play with .NET Core 3
- Play with Azure DevOps Pipelines and Docker
- Use Test Driven Development

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What is CSharpWars?

- *Robots* on *arena* (15x15)
- Robots take *turns* (simultaniously)
- Robots can *move* around the grid (walk, turn, teleport)
- Robots can *attack* other robots (melee, ranged)
- Robots can *see* part of the arena (vision)
- A turn is scripted using C# (Roslyn)
- A robot runs a *single script* every two seconds
- A robot has a *limited* amount of *health* and *stamina*

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Robot Arena

HTTP API

SQL Database

Processing Middleware

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Demo

https://api.djohnnie.be:8802/

- Register as a player
- Select a pre-defined script
- Create your robot
- Watch your robot struggle

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https://github.com/Djohnnie/CSharpWars-TechDaysFinland-2020

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