



Lisboa



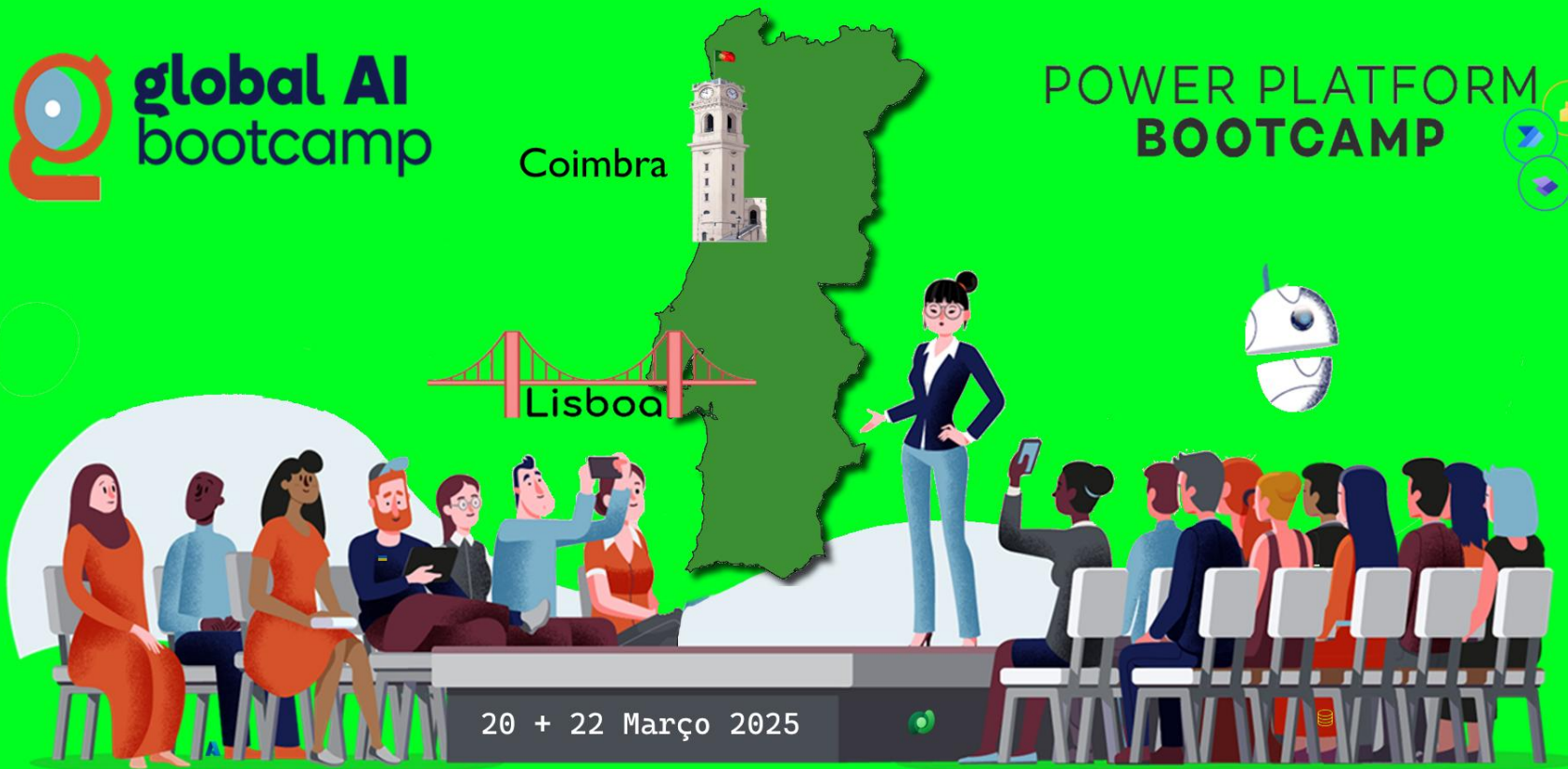
20 + 22 Março 2025

Hey, human! Stand by for the next session!



Coimbra

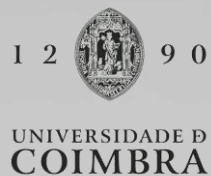
POWER PLATFORM
BOOTCAMP



Microsoft.Extensions.AI: an API to rule them all!!!



Massimo Bonanni
Technical Trainer @ Microsoft



Lunar Cat

This event is organised by the following non-profit technical communities:



What is Microsoft.Extensions.* ?



A modern framework **should** provide the fundamental building blocks for application development.

A modern framework **should** allow you to use your desired implementation instead of the provided implementation.

Microsoft.Extensions.Logging

→ ILogger

Microsoft.Extensions.Caching.*

→ IMemoryCache, IDistributedCache, ...

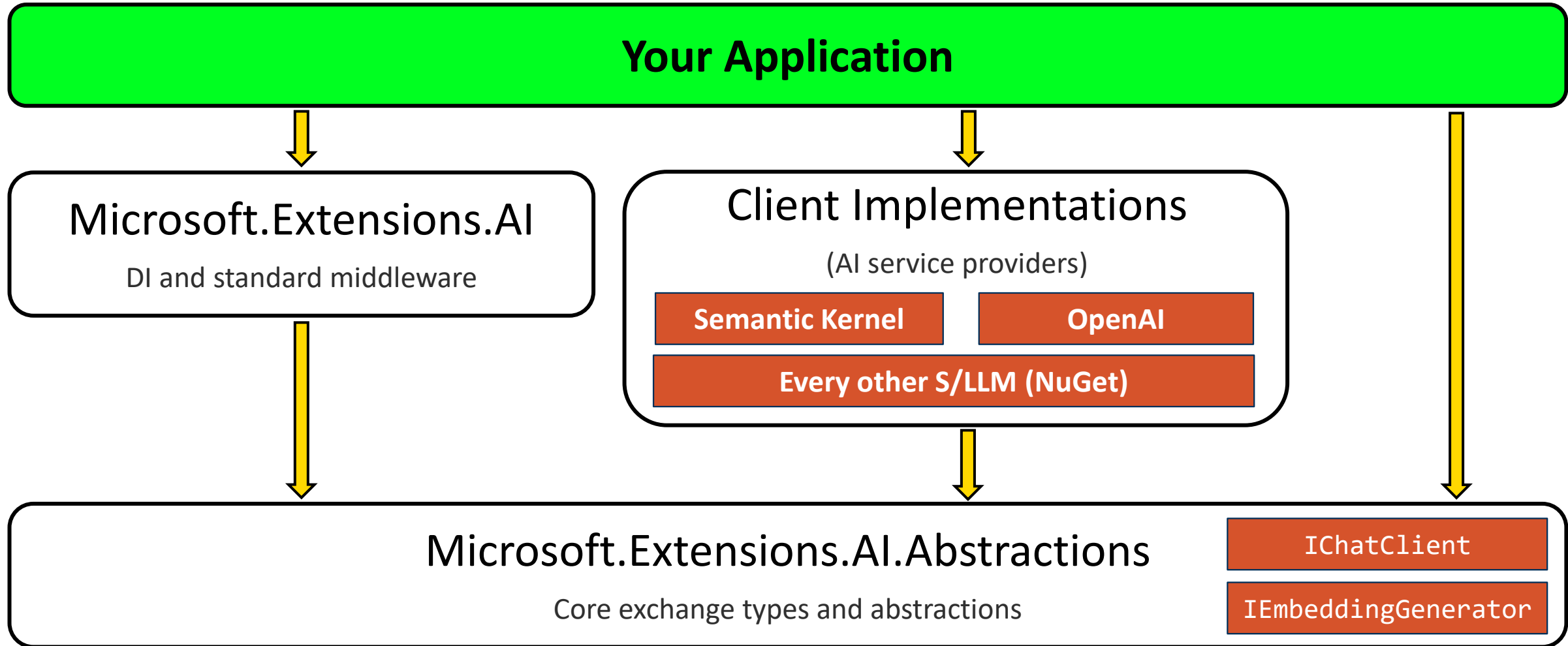
Microsoft.Extensions.DependencyInjection

→ IServiceCollection

Microsoft.Extensions.AI

→ IChatClient,
IEmbeddingGenerator

Microsoft.Extensions.AI architecture



Client implementations

Client Implementations

(AI service providers)

Semantic Kernel

OpenAI

Every other S/LLM (NuGet)

Azure AI Inference (GitHub Models)

Microsoft.Extensions.AI.AzureAIIInference



Azure OpenAI / OpenAI

Microsoft.Extensions.AI.OpenAI



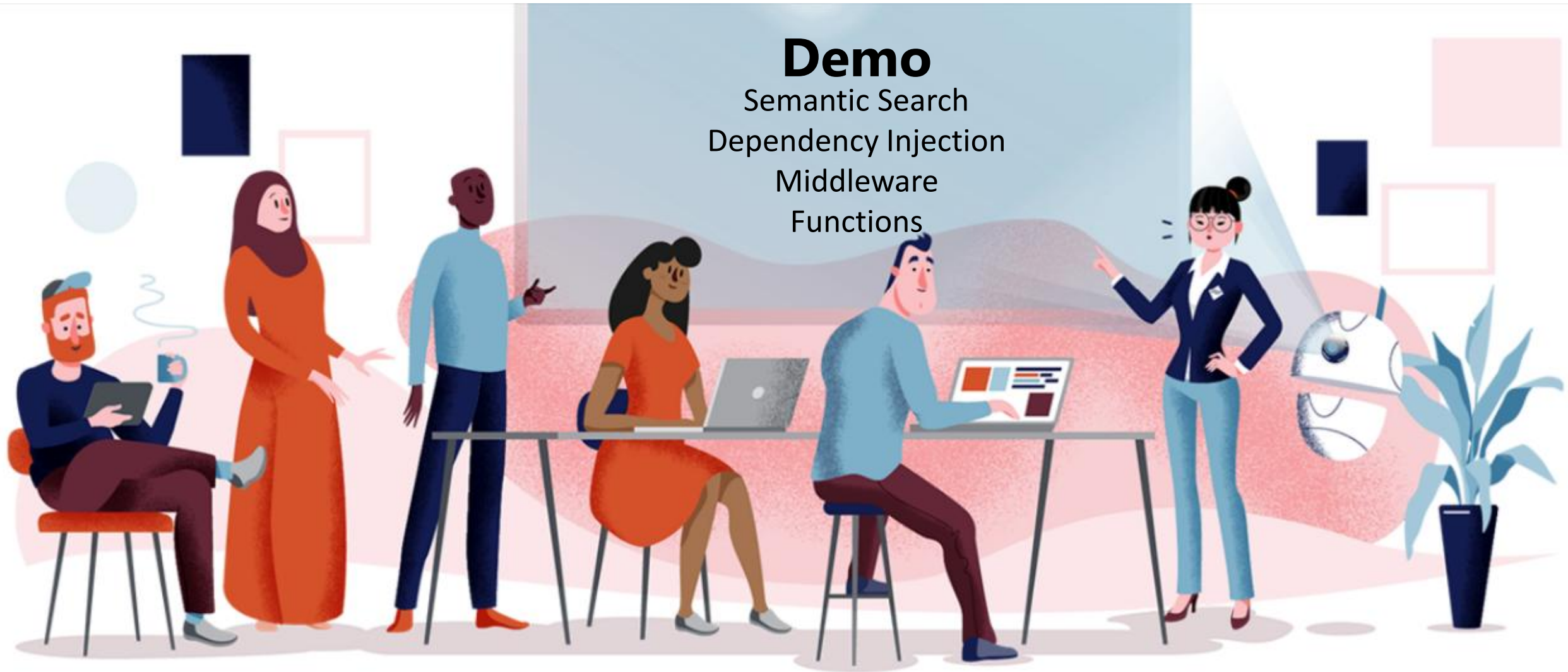
Ollama

Microsoft.Extensions.AI.Ollama



Demo

Semantic Search
Dependency Injection
Middleware
Functions



Start building with Microsoft.Extensions.AI

Library Developers

If you own libraries that provide clients for AI services, consider implementing the interfaces in your libraries.

Service Consumers Application Developers

Use the abstractions instead of hardcoding to a specific AI service. This enables portability across models and services, facilitates testing and mocking, leverages middleware provided by the ecosystem, and maintains a consistent API throughout your app.

Ecosystem Contributors

Contribute to the ecosystem writing custom middleware components or clients.

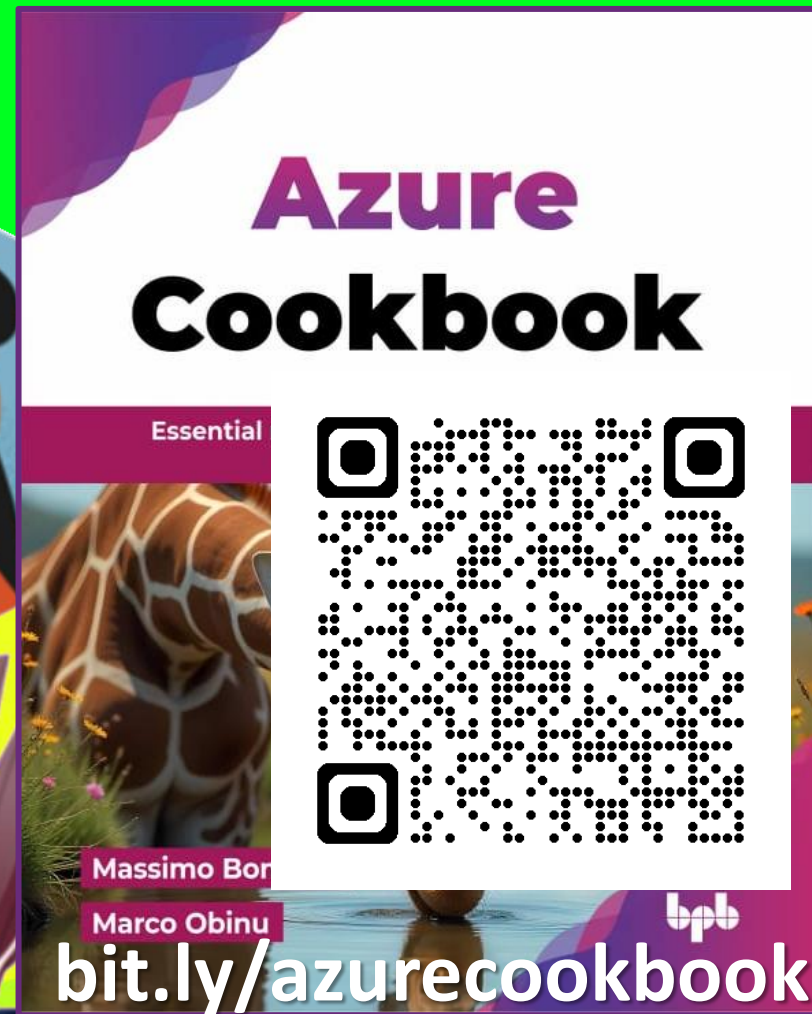
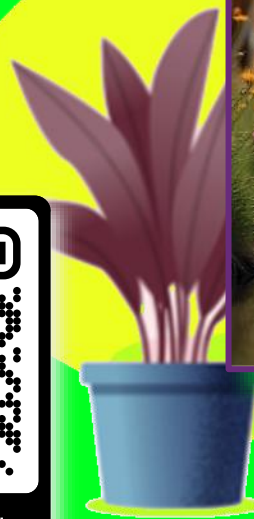
Any Questions?



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References

- Introducing Microsoft.Extensions.AI Preview - Unified AI Building Blocks for .NET - .NET Blog
- Unified AI building blocks for .NET - .NET | Microsoft Learn
- Models · GitHub Marketplace
- AI Building Blocks - A new, unified AI layer (.NET Conf 2024)





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