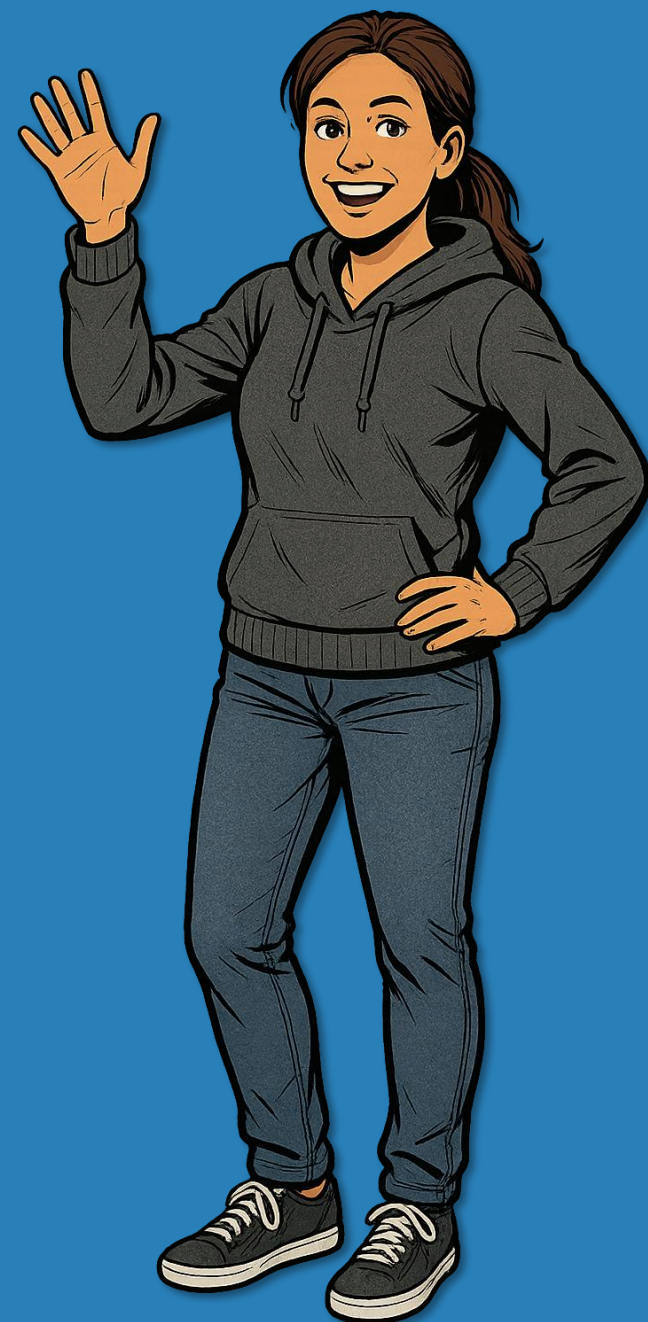




Rivoluziona la gestione di Azure con Copilot

Massimo Bonanni





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What cloud admins want

Summarize the current state of my deployed applications

Design an environment for a .NET web app with SQL Server and blob storage, following security best practices

Identify the top 5 slowest queries in my Azure SQL Database and suggest optimizations

Recommend cost-saving changes

Show me underutilized resources in this subscription

Why is the web app running slowly?

Check whether this virtual machine springtoys-ws-eus_15fe012d is accessible through the internet

Does this storage account follow security best practices?



What market ask to cloud admins

Correctness

Compliance

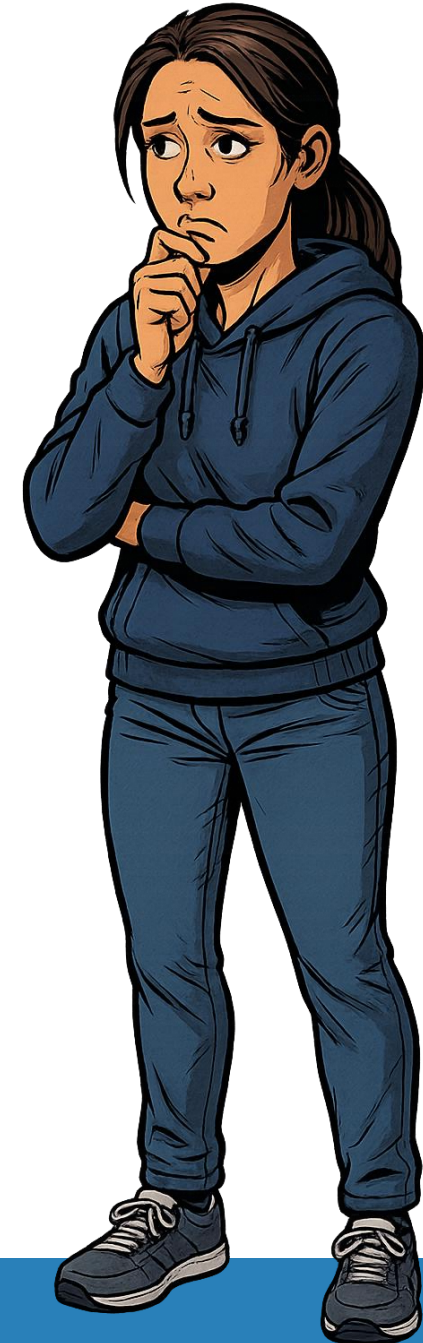
Safety

Productivity

Consistency

Cost Savings

**... and for
YESTERDAY!!!**



What is Microsoft Copilot in Azure

- ✓ Copilot in Azure is a **conversational AI assistant** integrated with Azure.
- ✓ Copilot in Azure brings together **advanced LLM capabilities** with Azure's **data governance**, **Resource Manager** access controls, and **Azure Graph** to help you manage your environment more effectively and streamline your daily operations.

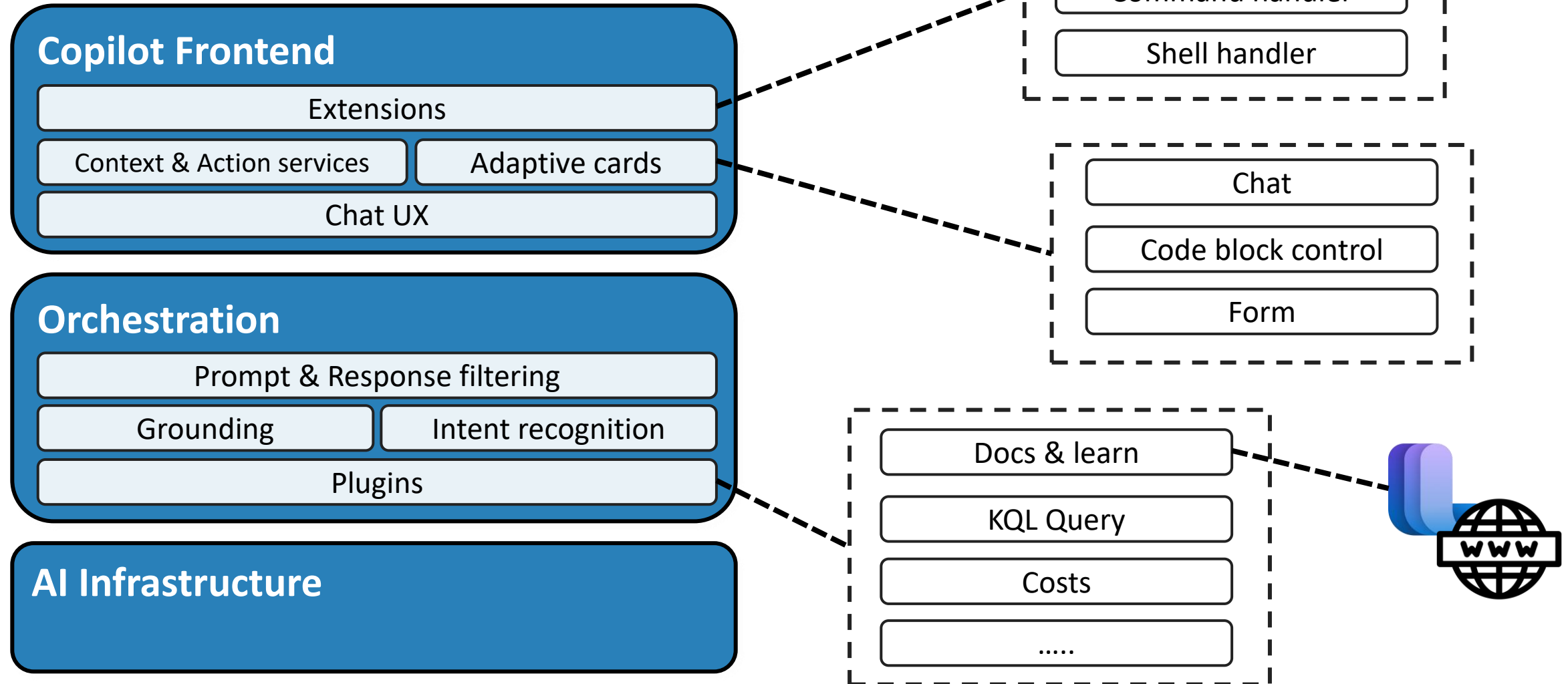


DEMO

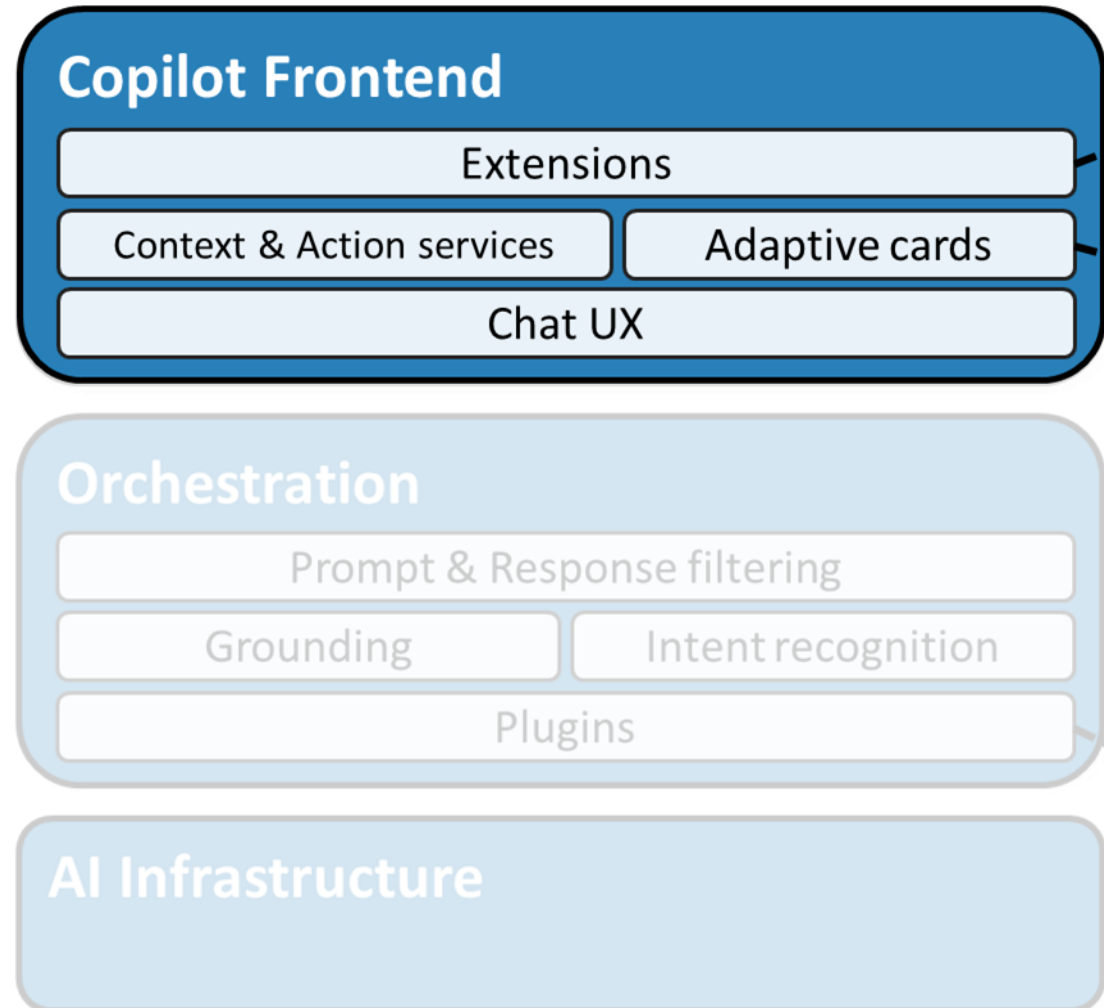
Hello Copilot!!



Architecture

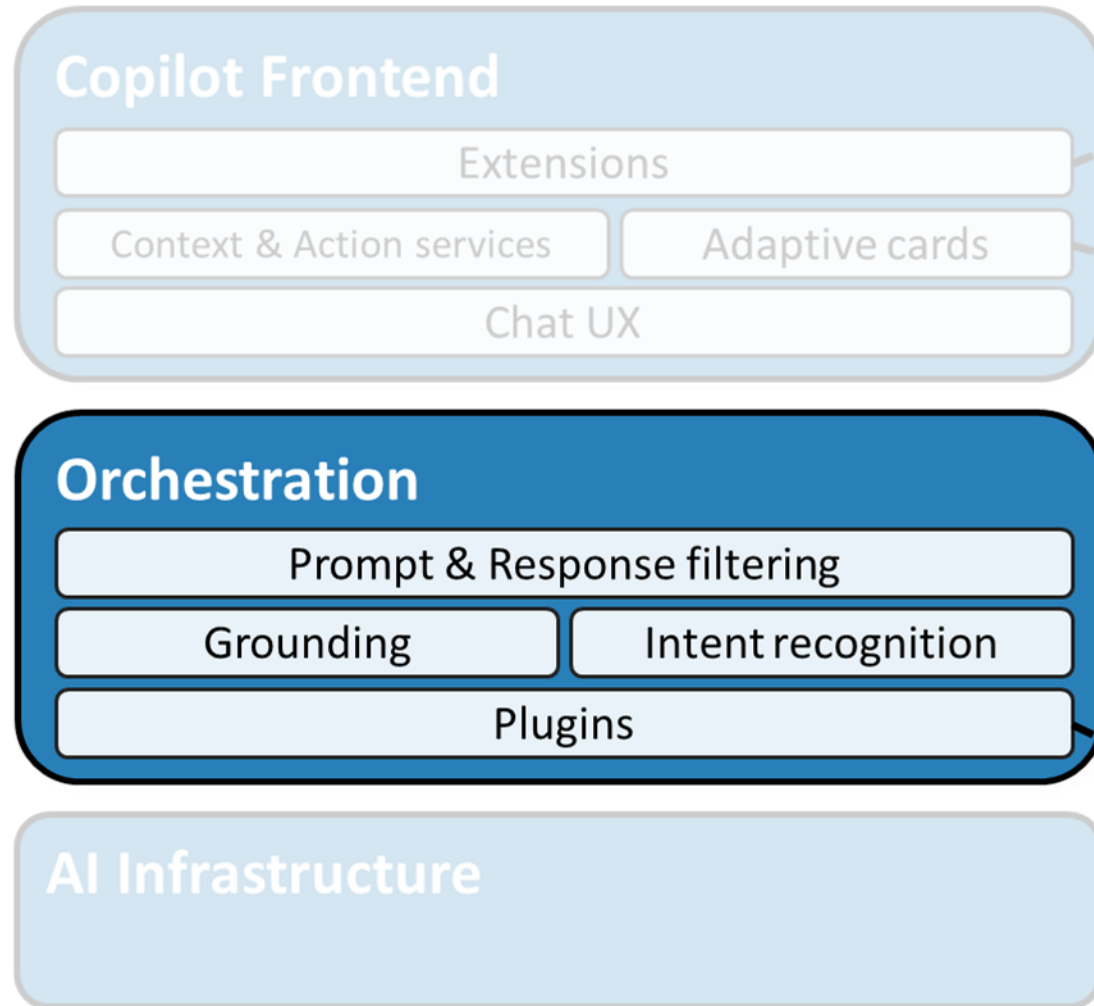


Frontend



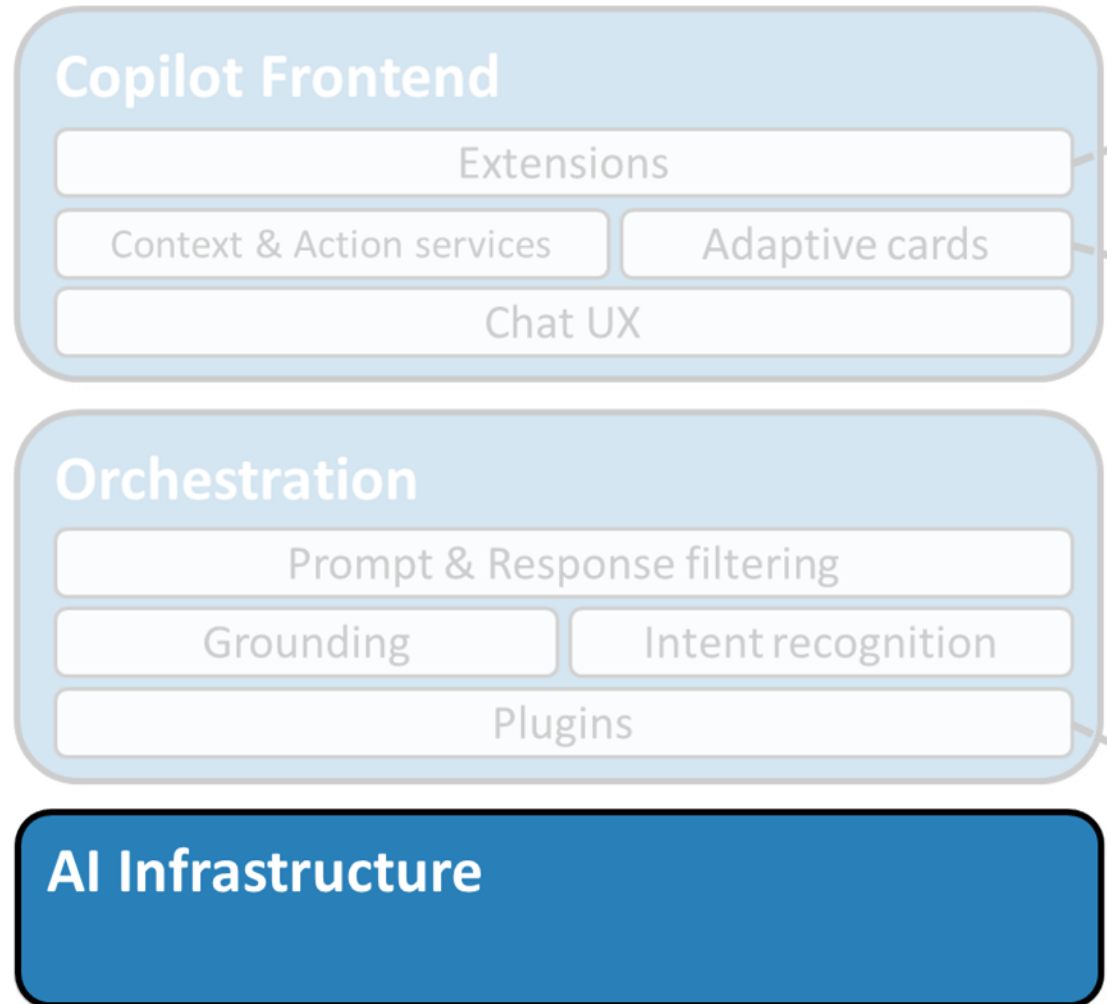
- ✓ The Frontend provides a common, consistent user interface to Copilot in Azure.
- ✓ It implements the conversation window, provides multimodal responses to questions (text, charts, illustrations), and collects user feedback.
- ✓ It also understands the current navigation context so the user can ask questions in a natural manner over the resources displayed on the current portal page.

Orchestration



- ✓ The Orchestration layer is the heart of Copilot in Azure.
- ✓ This layer generates a deep semantic understanding of the user's question using the Large Language Model, reasons over all Azure resources and resource types, and then dispatches the question to the relevant domain-specific plugins.
- ✓ Plugins use their service-specific graph or observability data to answer the user's question.

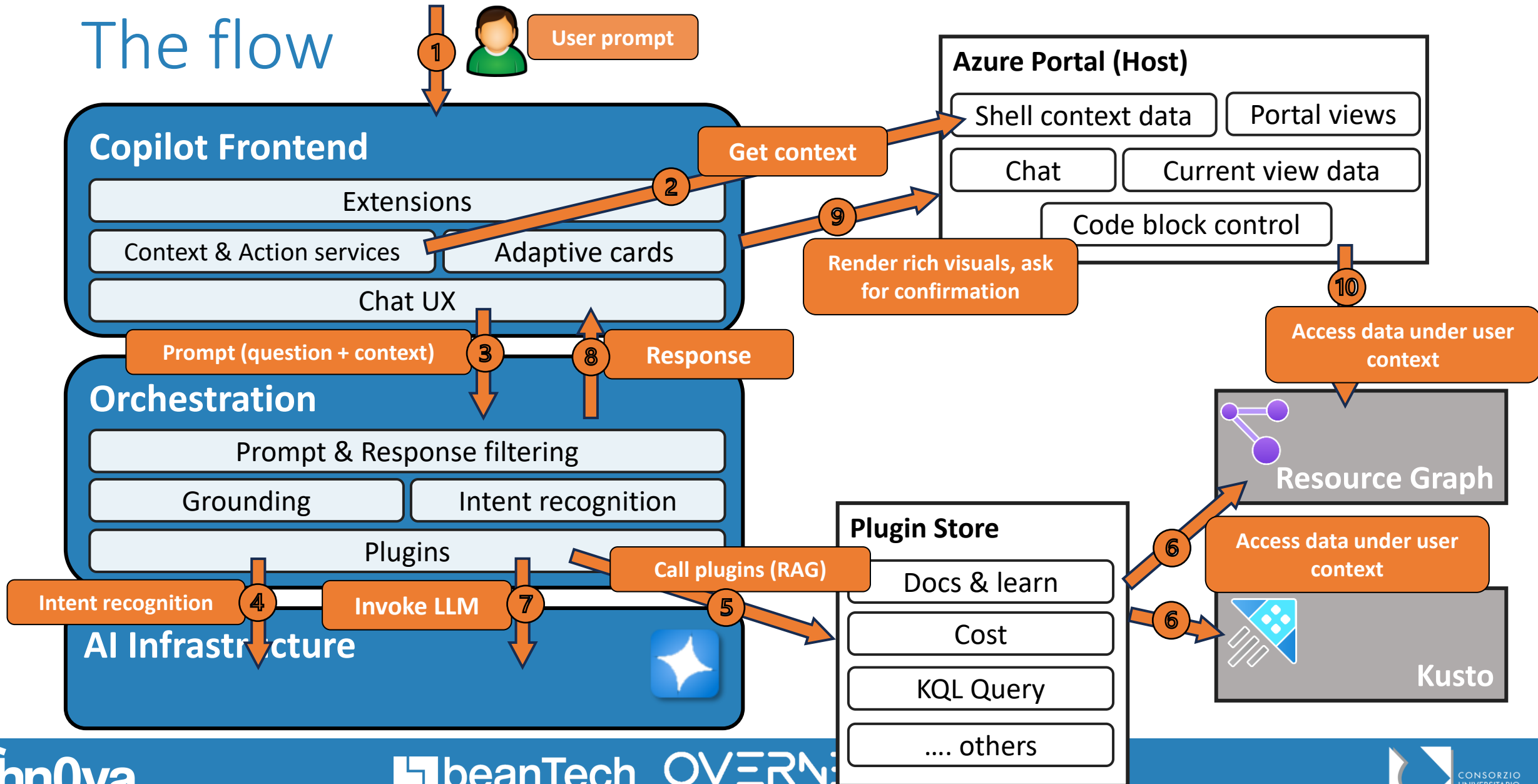
AI Infrastructure



- ✓ The AI Infrastructure used by Copilot in Azure is the same Azure OpenAI infrastructure which is commercially available to any developer.

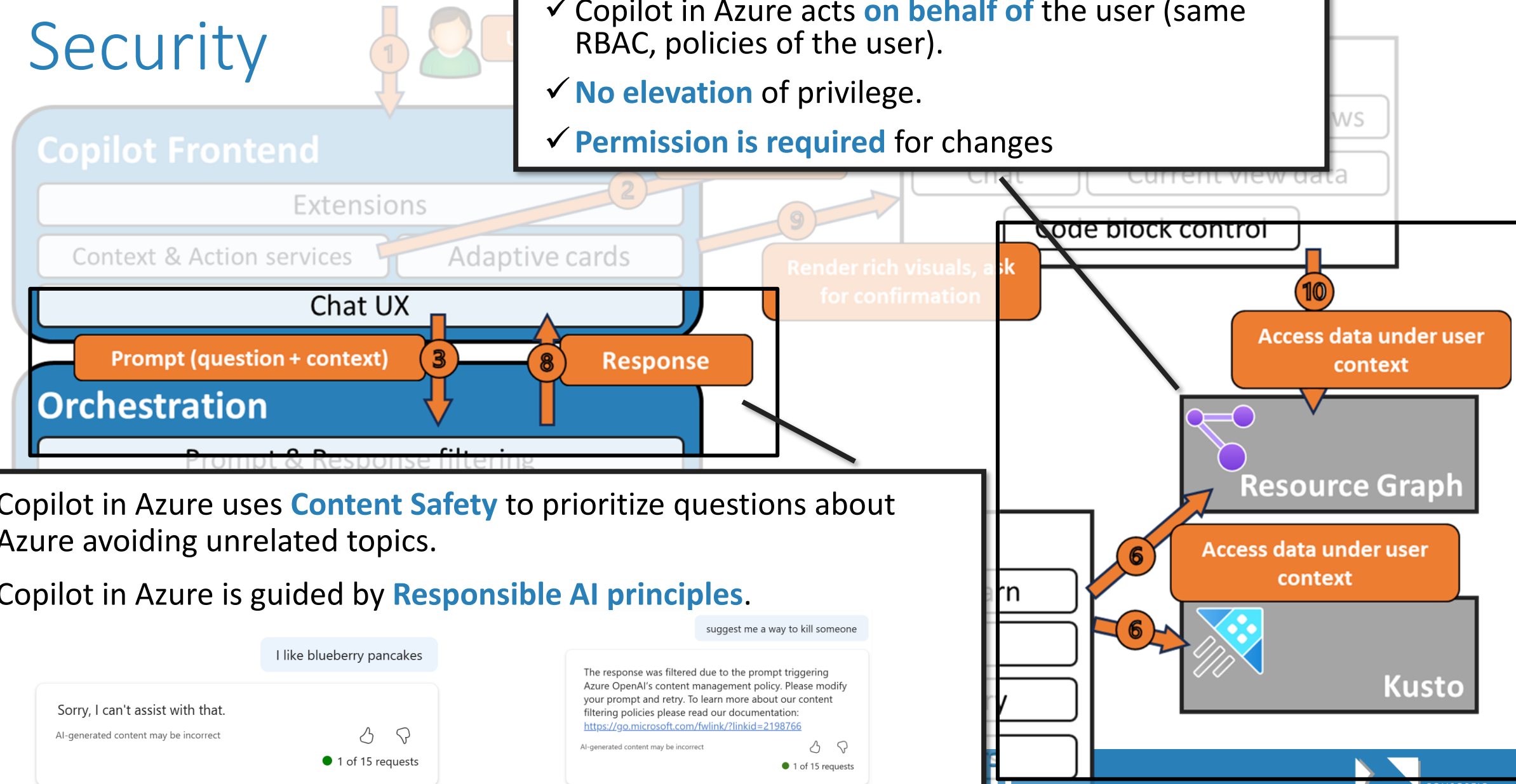


The flow

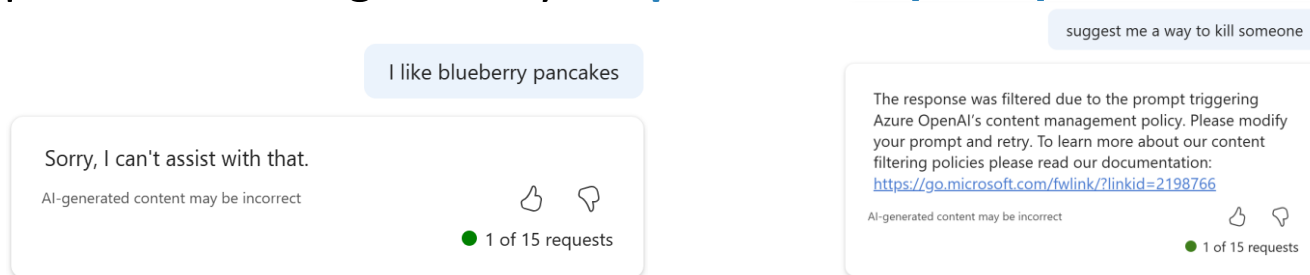


Security

- ✓ Copilot in Azure acts **on behalf of** the user (same RBAC, policies of the user).
- ✓ **No elevation** of privilege.
- ✓ **Permission is required** for changes



- ✓ Copilot in Azure uses **Content Safety** to prioritize questions about Azure avoiding unrelated topics.
- ✓ Copilot in Azure is guided by **Responsible AI principles**.



Manage Access

By default, Copilot in Azure is available to all users in a tenant



Global Administrators can manage access to Copilot in Azure for their organization

On for entire tenant

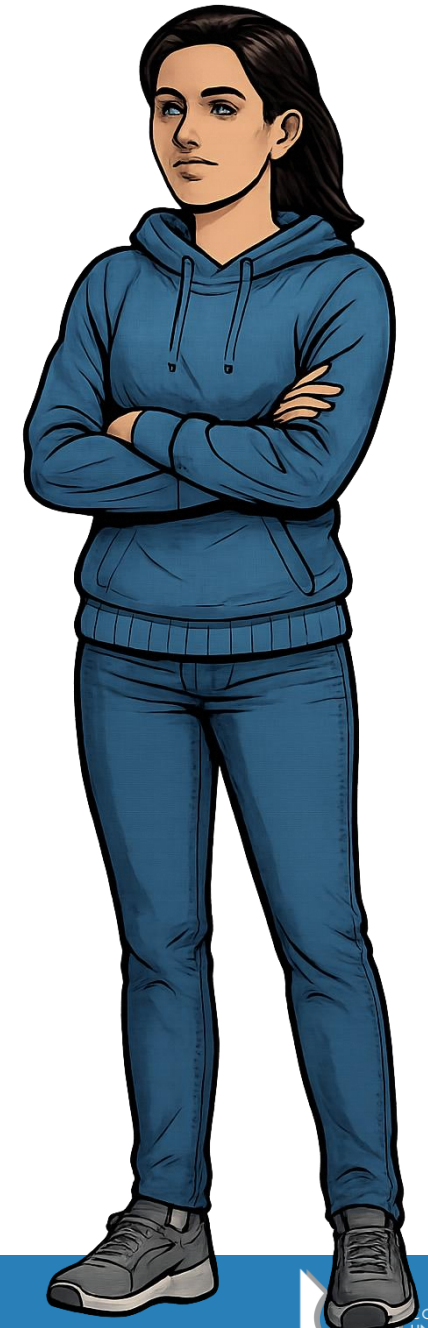
Grant access to specific
Microsoft Entra users or group



On-prem resources

Microsoft Copilot in Azure leverages **Azure Arc** to provide insights and assistance for on-premises resources:

- ✓ Can access information about inventory, status, and health of on-premises resources.
- ✓ Assists with network planning and troubleshooting in hybrid environments.
- ✓ Potentially provides insights into performance and security posture via Azure Monitor and Microsoft Defender for Cloud integration with Arc.
- ✓ Can generate scripts for managing Arc-enabled resources



DEMO

Prompting like
there's no
tomorrow!!



GitHub Copilot for Azure



An **extension for Visual Studio Code** that combines GitHub Copilot with Azure integration.



Lets developers use **natural language** to:

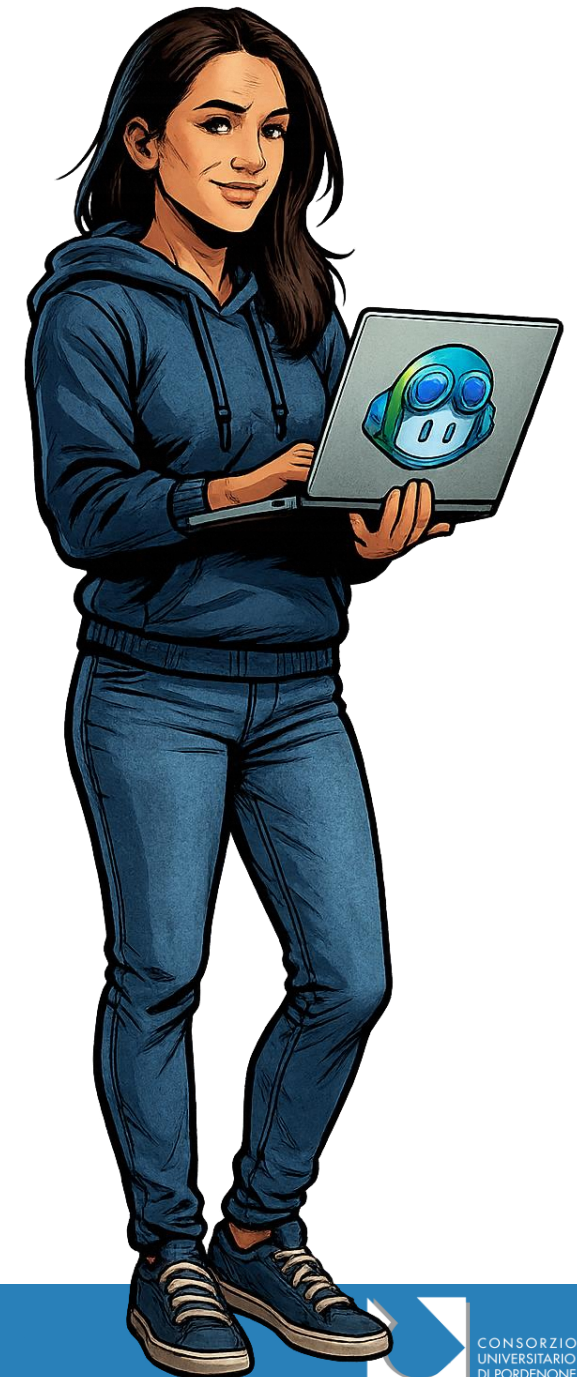
- Learn about Azure services and tools.
- Deploy and manage Azure resources.
- Diagnose and troubleshoot cloud issues.
- Optimize performance and resource usage.



Built on **LLMs (like GPT-4o) + Microsoft Learn knowledge + Azure Resource Graph**.



Designed to help both **new Azure developers** and **experienced cloud engineers** work faster without always relying on portal navigation.



Copilot in Azure vs GitHub Copilot for Azure

	Copilot in Azure	GitHub Copilot for Azure
Where it runs	Inside the Azure Portal, Mobile App, and AI Shell	Inside Visual Studio Code as an extension
Primary users	Cloud admins, operators, IT pros	Developers building & deploying apps
Main purpose	Manage, troubleshoot, and optimize Azure infrastructure & resources	Assist with app development + Azure deployment
Key capabilities	• Answer Azure questions • Visualize resources & costs • Generate CLI, PowerShell, Bicep, Terraform scripts • Troubleshoot apps & infra	• Guide app design & coding • Deploy apps with azd templates • Create CI/CD pipelines • Troubleshoot deployments & services
Integration	Deep integration with Azure Control Plane and policies	Integrated with GitHub Copilot and Azure Dev Tools

Copilot in Azure Limits

Any action taken on more than 10 resources must be performed outside of Microsoft Copilot in Azure.

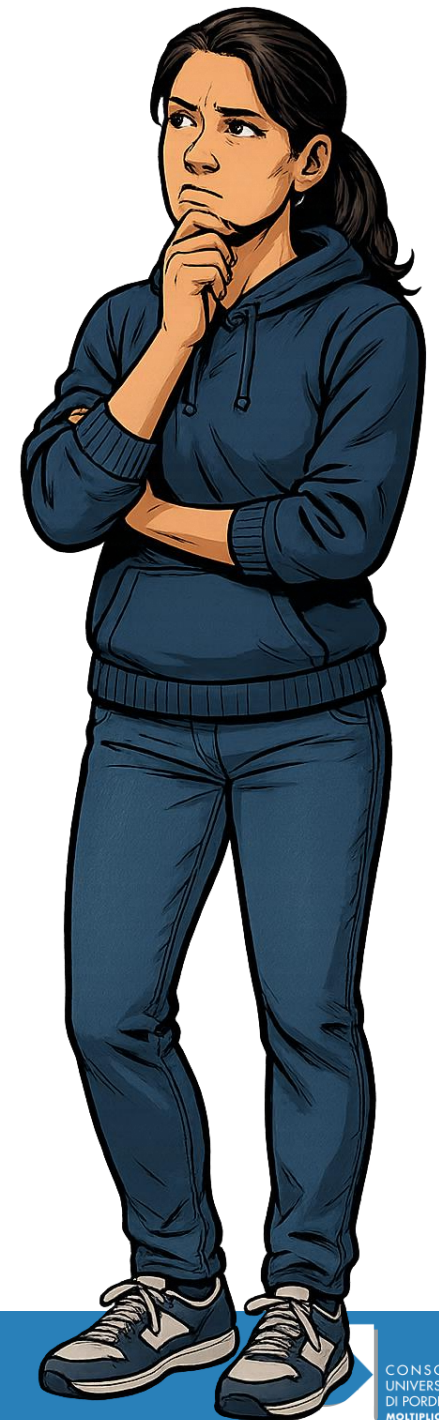
You cannot continue the same conversation beyond 24 hours.

Some responses that display lists will be limited to the first 5 items

For some tasks and queries, using a resource name will not work, and you will need to specify the Azure resource ID

Excessive use of Copilot in Azure may result in temporary throttling of access to Copilot in Azure.

Copilot in Azure is currently available in 19 languages (Italian included)



....and then?



Like any AI system, Microsoft Copilot in Azure's responses will not always be perfect.



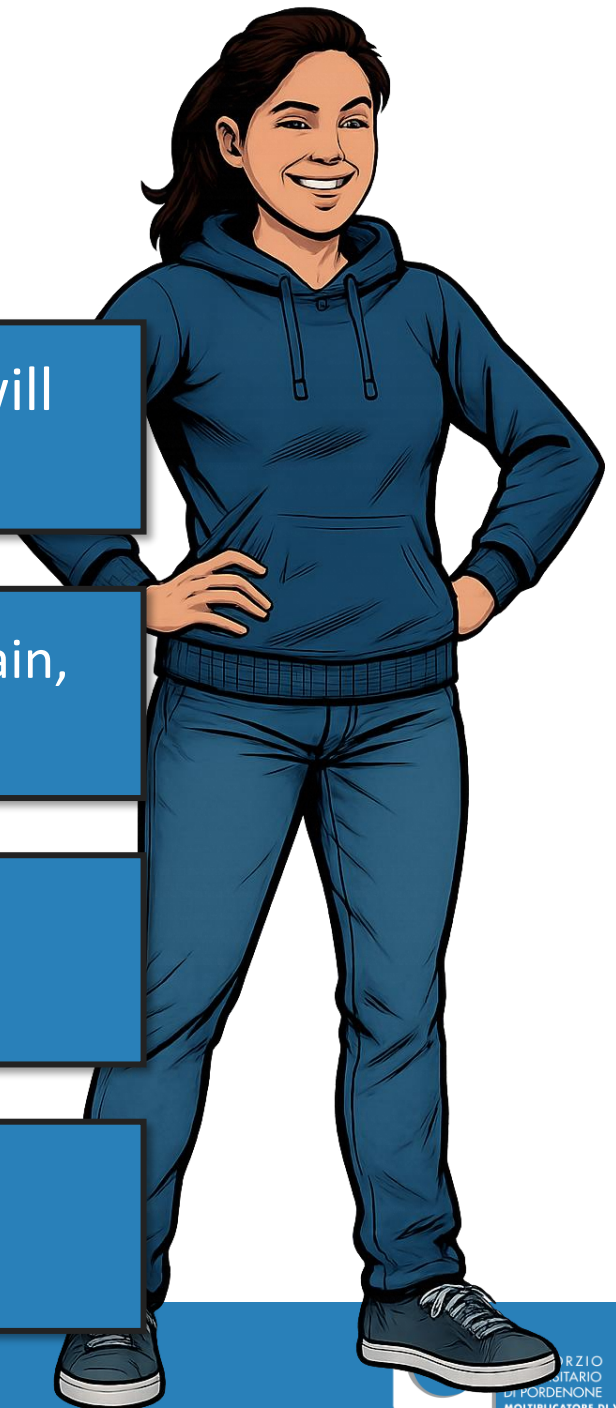
User-provided prompts and responses are not used to train, retrain, or improve Azure OpenAI Service foundation models.

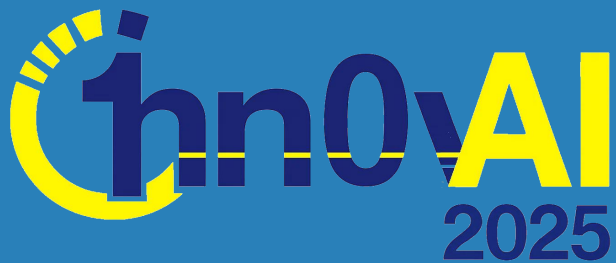
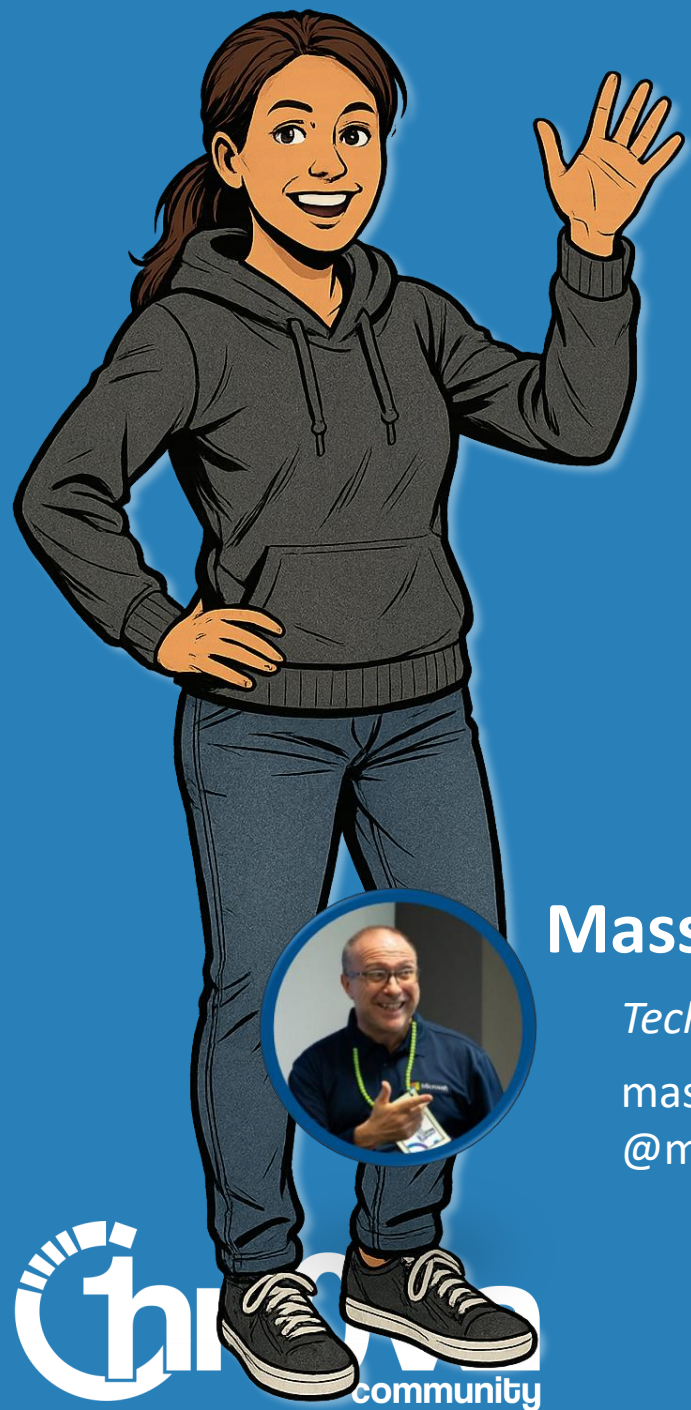


Not all Azure services have the same level of integration Copilot in Azure.



Give your feedback to the Copilot in Azure answers.... Your feedback will improve Copilot!





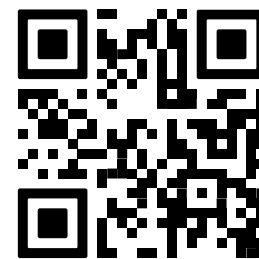
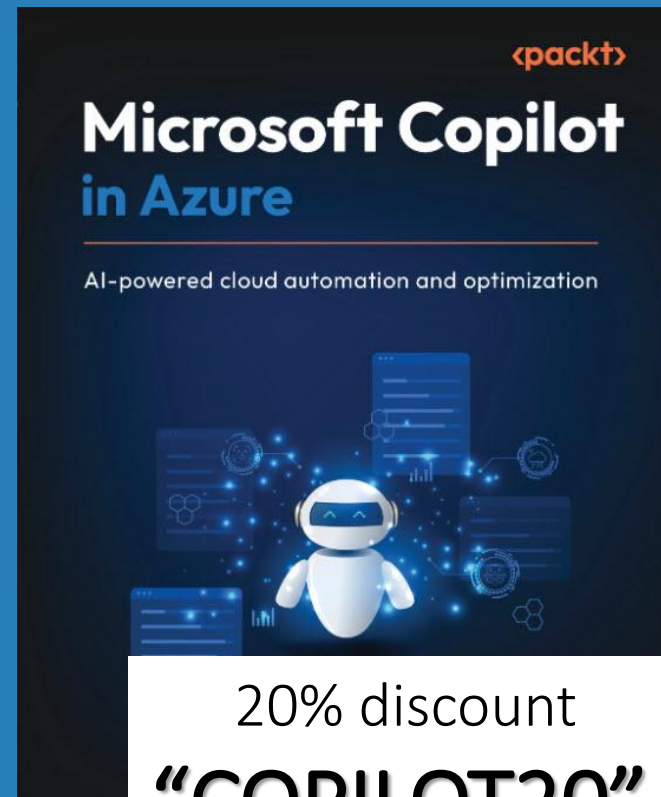
Thanks!!!

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References



- ✓ [Microsoft Copilot in Azure overview](#)
- ✓ [Microsoft Copilot in Azure capabilities](#)
- ✓ [Microsoft Copilot in Azure \(Video\)](#)
- ✓ [Write effective prompts for Microsoft Copilot in Azure](#)
- ✓ [Copilot in Azure Technical Deep Dive | Microsoft Community Hub](#)
- ✓ [Simplifying cloud operations with Microsoft Copilot in Azure \(Ignite 2023\)](#)
- ✓ [massimobonanni/CopilotAzure-Demos](#)