SEASON OF AI AGENTS

BUILD APPLICATIONS WITH GITHUB COPILOT AGENT MODE

Azure Community

SESSION DETAILS

Date: MAY 30 2025

Time: 8 pm WAT

Register: bit.ly/githubcopilotagentmode

SPEAKER: IMOH ETUK (MVP)

MODERATOR: PROMISE NWACHUKWU (MVP)

Build Applications with GitHub Copilot Agent Mode

Imoh Etuk

“IF YOU WANT TO SUCCEED IN THE AGE OF AI, LEARN AI.”

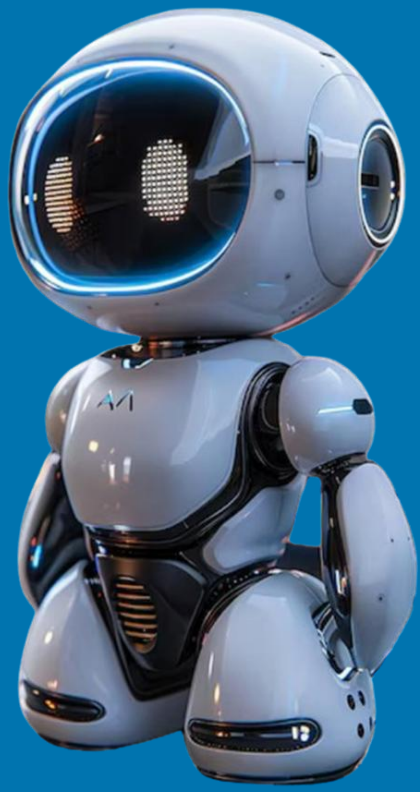
IMOH ETUK

Agenda

- Introduction of GitHub Copilot agent mode
- Learning objectives
- Exploring the Power of GitHub Copilot agent mode
- Background: ABC Ltd Fictitious Helpdesk App
- Let's dive into working on the skill:
    - Build applications with GitHub Copilot agent mode – ABC Ltd Fictitious Helpdesk App

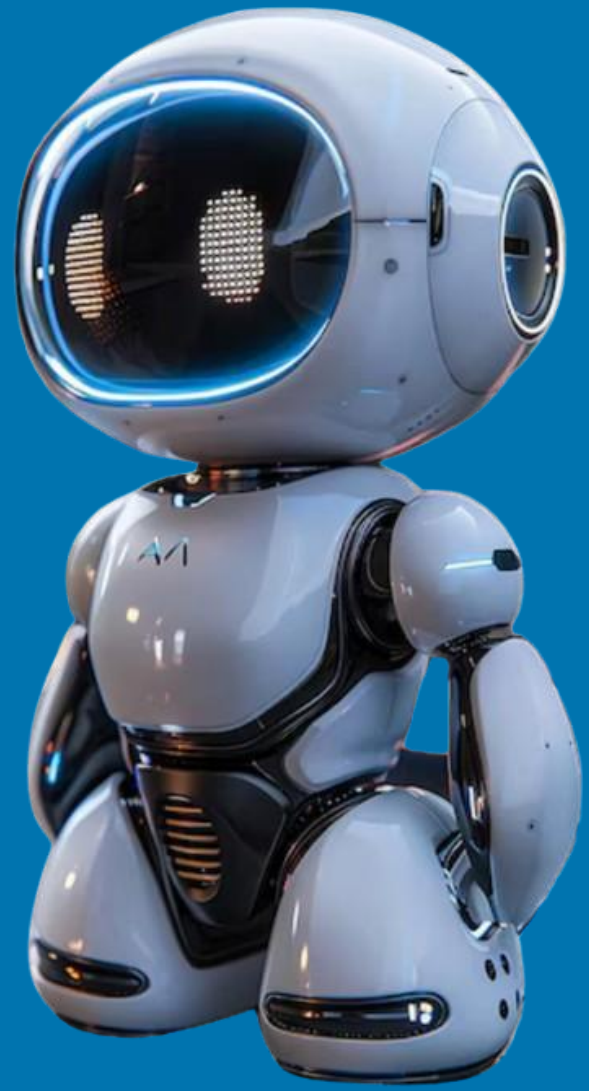
Objectives

- Understand how to develop with VS Code IDE using GitHub Copilot Agent Mode in GitHub Codespaces
- Prompt GitHub Copilot agent mode to create an application
- Leverage documentation files to instruct GitHub Copilot agent mode
- Understand how GitHub Copilot agent mode iterates over a code base to:
    - Fix errors
    - Refactor code
    - Develop new features



Introduction of GitHub Copilot agent mode

- Next evolution of AI-assisted development
- An autonomous peer programmer
- Analyzes your codebase to gather full context
- Agent mode iterates on its own code



Copilot Agent Mode

What is GitHub Copilot Agent Mode?

What is it?

Agent Mode functions as an **autonomous peer programmer** that helps developers accomplish more with less effort.

How does it work?

- Determines the relevant files and dependencies before making edits.
- Suggests and executes code changes while ensuring they align with the project structure.
- Runs terminal commands as needed, such as compiling code, installing dependencies, and running tests.
- Monitors and refines its output, iterating multiple times to remediate issues and improve accuracy.

Ways of Interacting with GitHub Copilot

- Inline Suggestions
- Copilot Chat
- Copilot Edit
- Agent Mode

Benefits of Agent Mode

- Increase productivity
- Reduces cognitive load
- Code Quality
- Enhance collaboration

Exploring the power of GitHub Copilot agent mode

1 Autonomous operation

2 Multi-step tasks

3 Tools for task completion

4 Code changes and terminal commands

5 Iteration and self-healing

6 User control and review

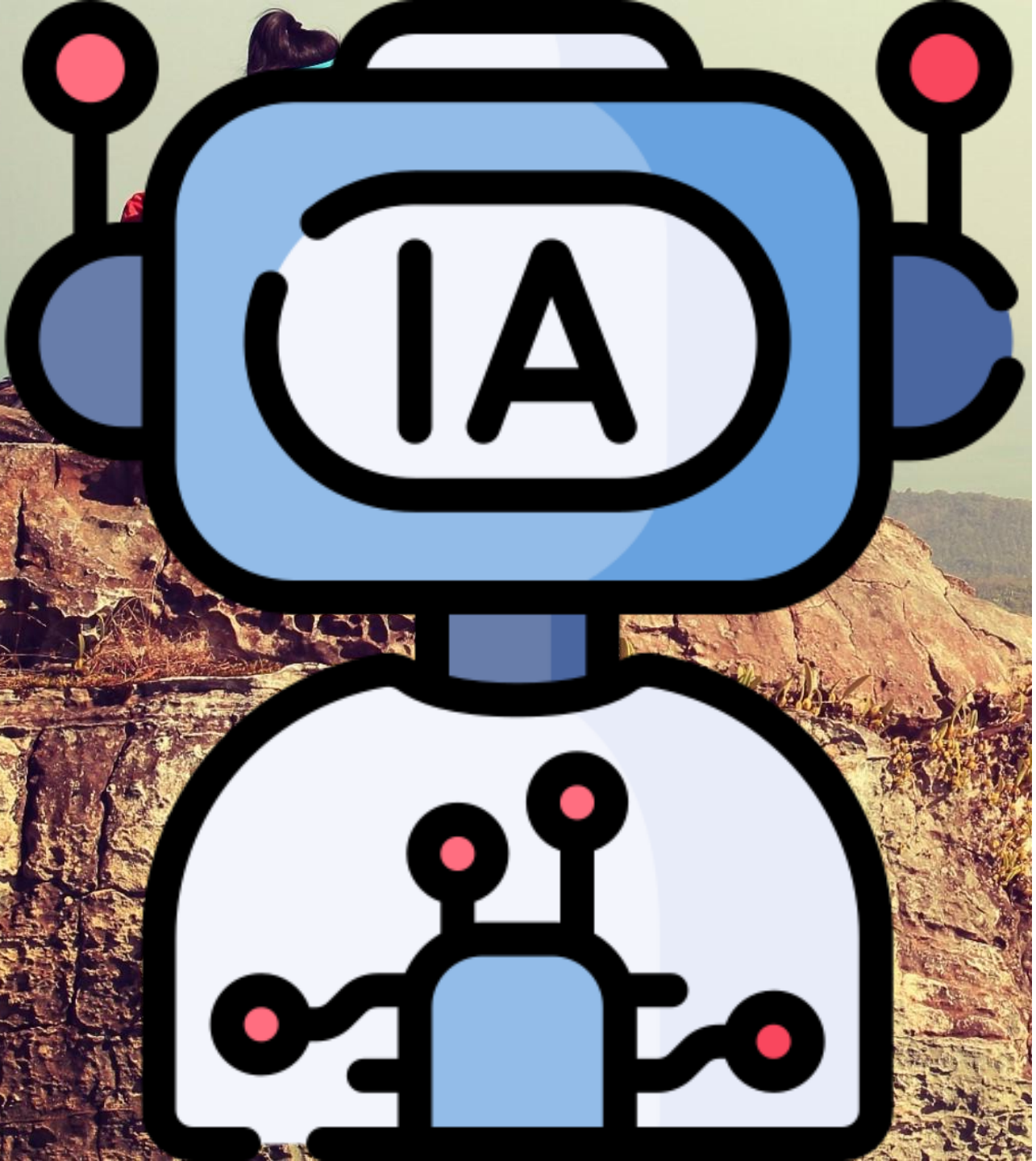
7 Context management

8 Undo and Redo

9 Interrupting requests

10 Limitations

Reference : The basics you can find anywhere 5 Steps To Successful Storytelling Published on April 5, 2014 Featured in: Marketing & Advertising



Background: ABC Helpdesk App

Setting: ABC Ltd – (Fictitious organization)

Key people in ABC Ltd

- John Doe
- Vic Jones

The Challenge

- No centralized ticketing system to track customer issues
- Lack of visibility into ticket status, ownership and response time
- Manual process of causing longer resolution times and customer dissatisfaction
- No analytics or performance metrics for support efficiency

The Solution: Helpdesk App

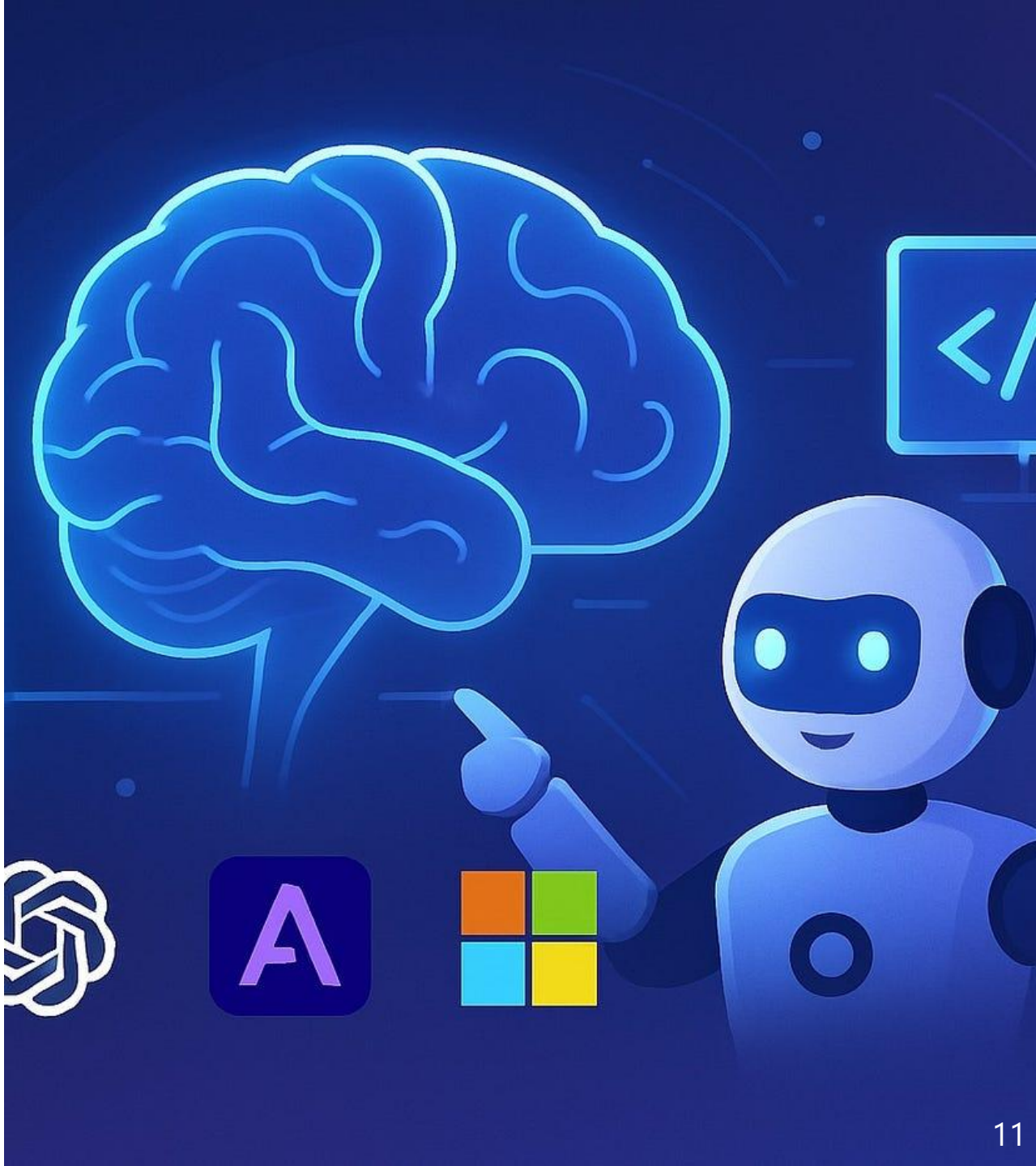
- Centralized customer support requests as tickets
- Built with GitHub Copilot agent mode
- Automate ticket assignment and status updates

Key Features

- MSSQL DB
- User authentication
- Admin portal
- Ticket Management UI
- Reporting and Analytics

Your Task

- Set up a GitHub Codespace for development.
- Install and configure GitHub Copilot.
- Use Copilot Agent Mode to generate and refine key app components.
- Implement ABC Ltd fictitious Helpdesk App, Set up user authentication, Ticket Management UI, admin portal, reporting and analytics.
- Test and optimize AI-generated code.

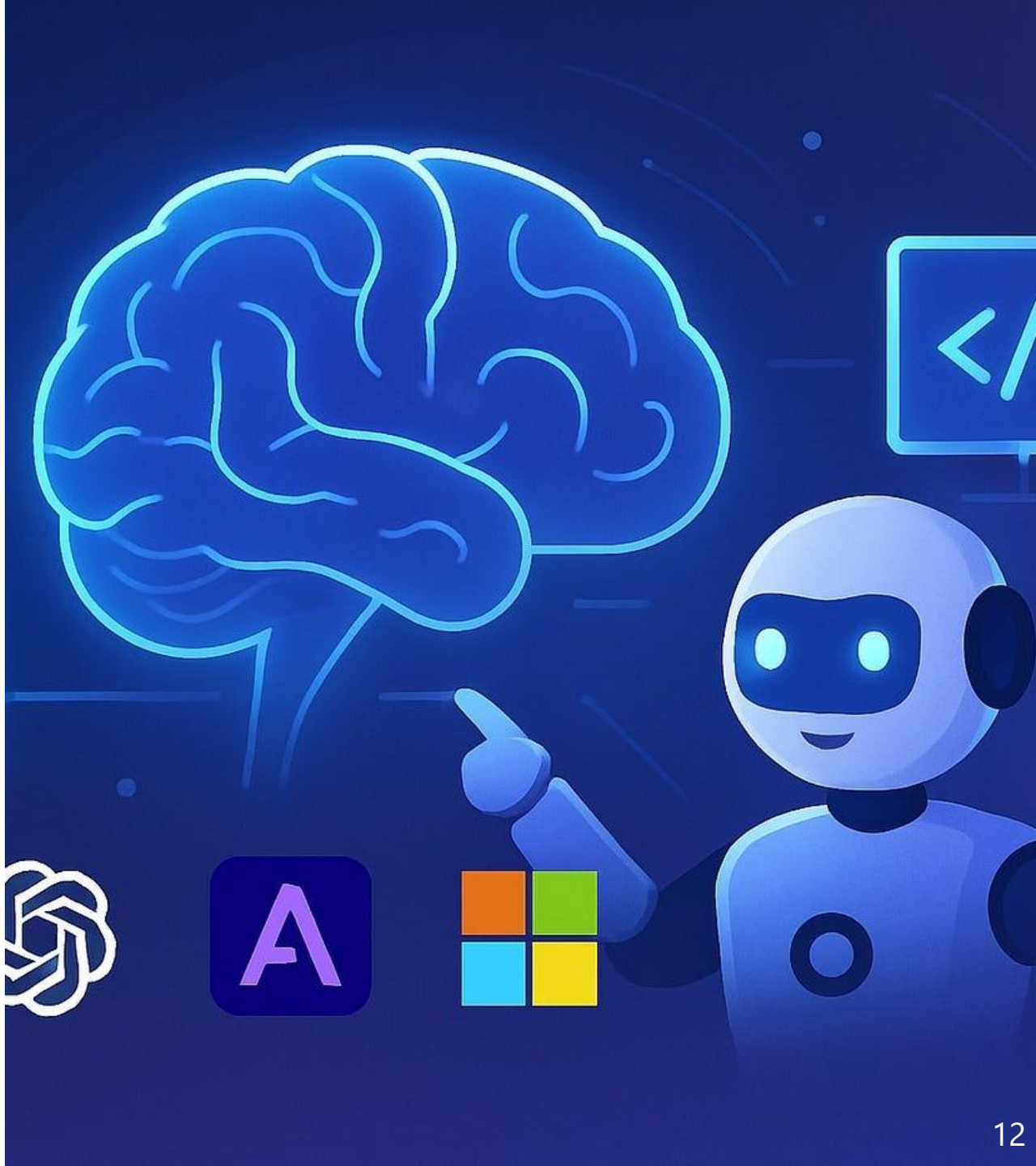


Technology Stack

- **Backend:** Node.js (Express.js)
- **Frontend:** React.js
- **Database:** MSSQL
- **Infrastructure:** Docker (optional for deployment)
- **Authentication:** JWT-based session or OAuth2
- **Hosting:** Cloud (e.g. Azure, Azure, Vercel for frontend, Railway/Render/Heroku for backend)

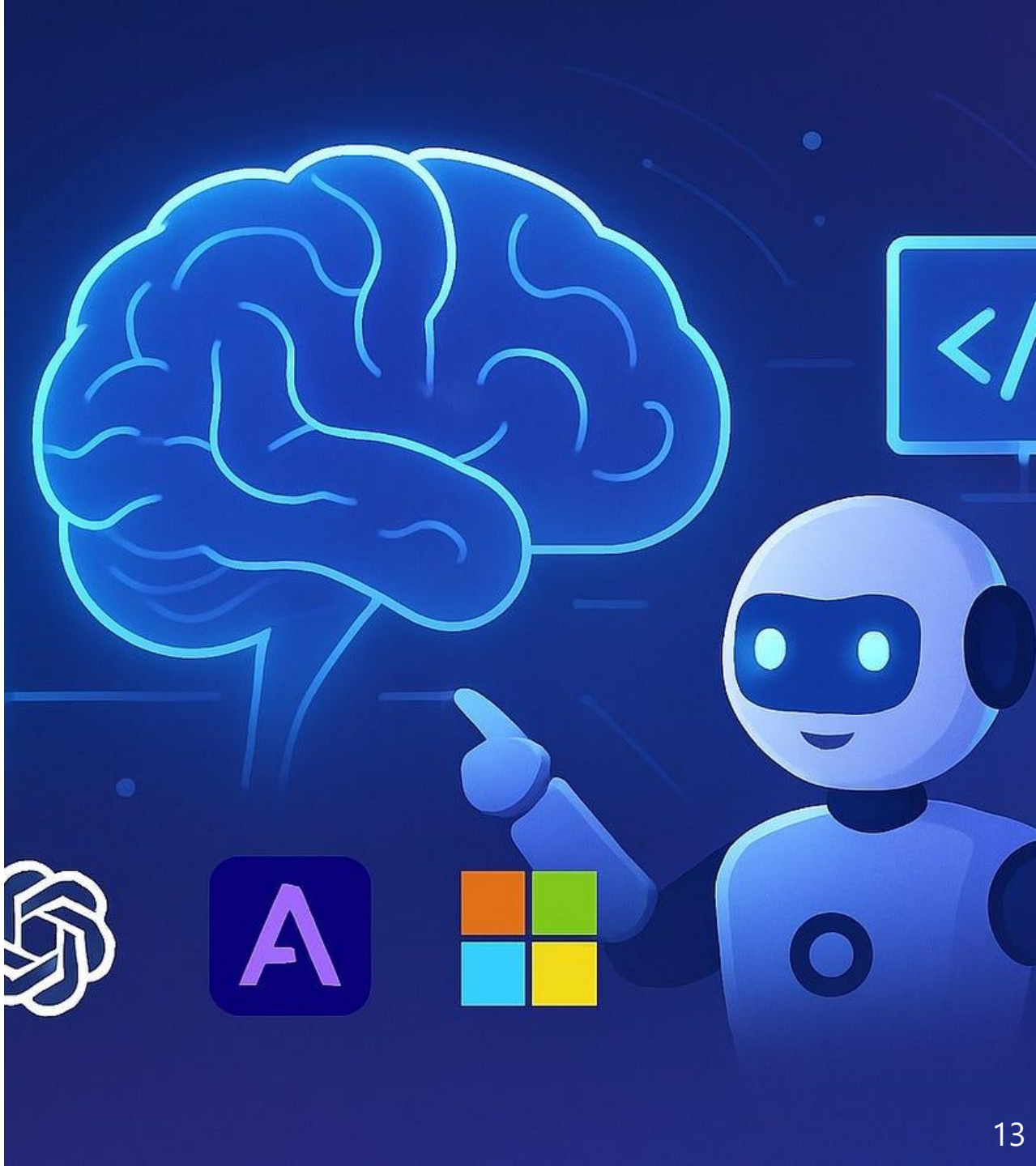
Why Use GitHub Copilot Agent Mode?

- Accelerates application development .
- Increases productivity by autogenerating boilerplate code
- Use Copilot Agent Mode to generate and refine key app components.
- Streamlines collaboration between developers and Copilot with focused, iterative prompts
- Encourages best practices by generating modern, structured codebases



Links for further learning

- https://github.com/microsoft/community-content/blob/main/S4-SeasonOfAgents/build-applications-w-github-copilot-agent-mode.md
- https://learn.microsoft.com/en-us/training/modules/github-copilot-agent-mode/
- GitHub - continuous-copilot/build-applications-w-copilot-agent-mode: This is a repository is a self-paced repository to build an application using GitHub Copilot agent mode
- https://learn.microsoft.com/en-us/shows/generative-ai-for-beginners/understanding-prompt-engineering-fundamentals-generative-ai-for-beginners
- https://learn.microsoft.com/en-us/azure/ai-services/openai/concepts/prompt-engineering?tabs=chat



Thank you!