








# Azure AI Foundry & AI Agent Service (Pro-Code)

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# AI Alignment Guide



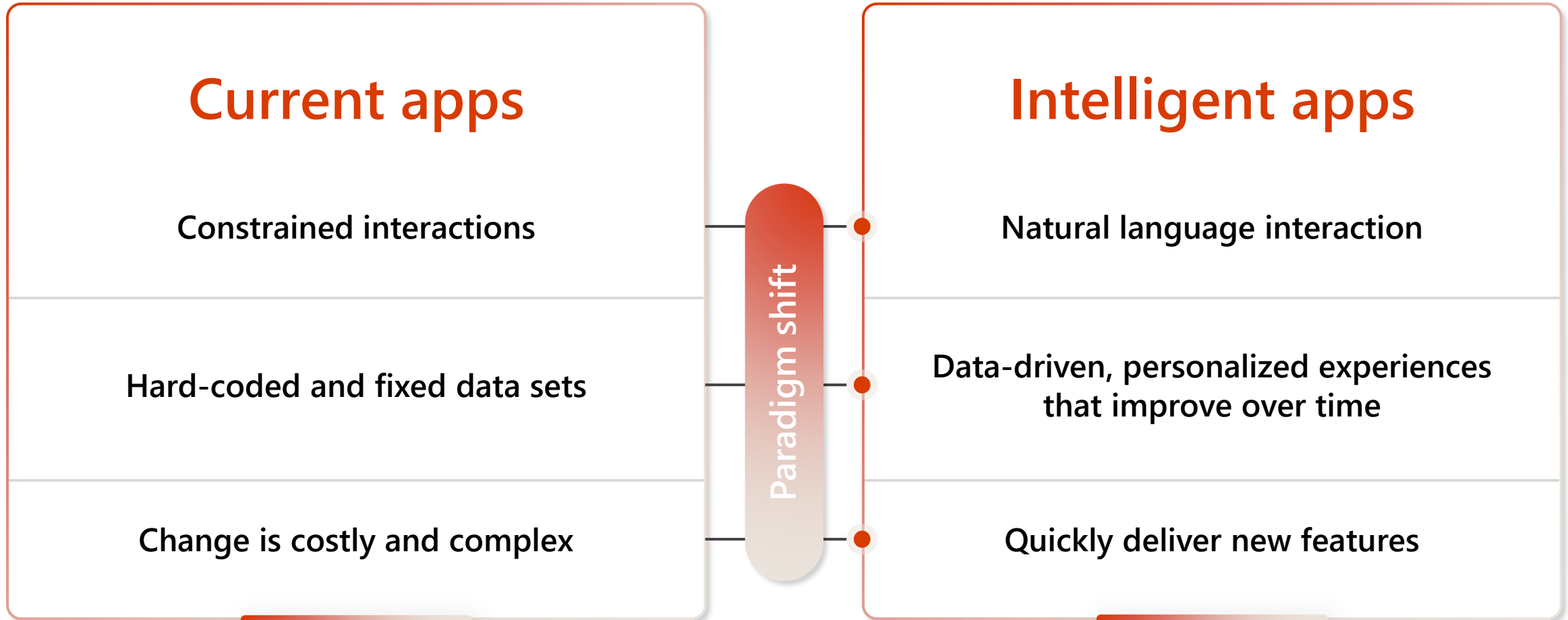
	I want a generative AI solution			
	I want out-of-the-box solutions that work with my existing data estate for my employees		I want to build a solution with custom data and UI, and deploy internally or externally	
	I want insights and actions for specific roles that integrate with existing system	I want insights and actions on M365 data and plugins	I want to customize agents with natural languages and use a generative orchestrator	I want full control, choice of model, and customize with code
	 			
	Persona-Based Copilots	Microsoft 365 Copilot	Copilot Studio	Azure AI Foundry
Licensing	Per User	Per User*	PAYG or Capacity Pack	Azure Services Meters
Stories	<a href="#">Link</a>	<a href="#">Link</a>	<a href="#">Link</a>	<a href="#">Link</a>
Persona	Line-of-Business Owner	Knowledge Worker	Power User	Developer
Out-of-box Value	★★★	★★★	★★	★
Customization	★	★	★★	★★★



 Integrate with Fabric + Purview 

\* [Microsoft 365 Copilot Chat](#) advanced Agent Capabilities requires Copilot Studio Messages










# There is a paradigm shift over current app development



# Top use cases for

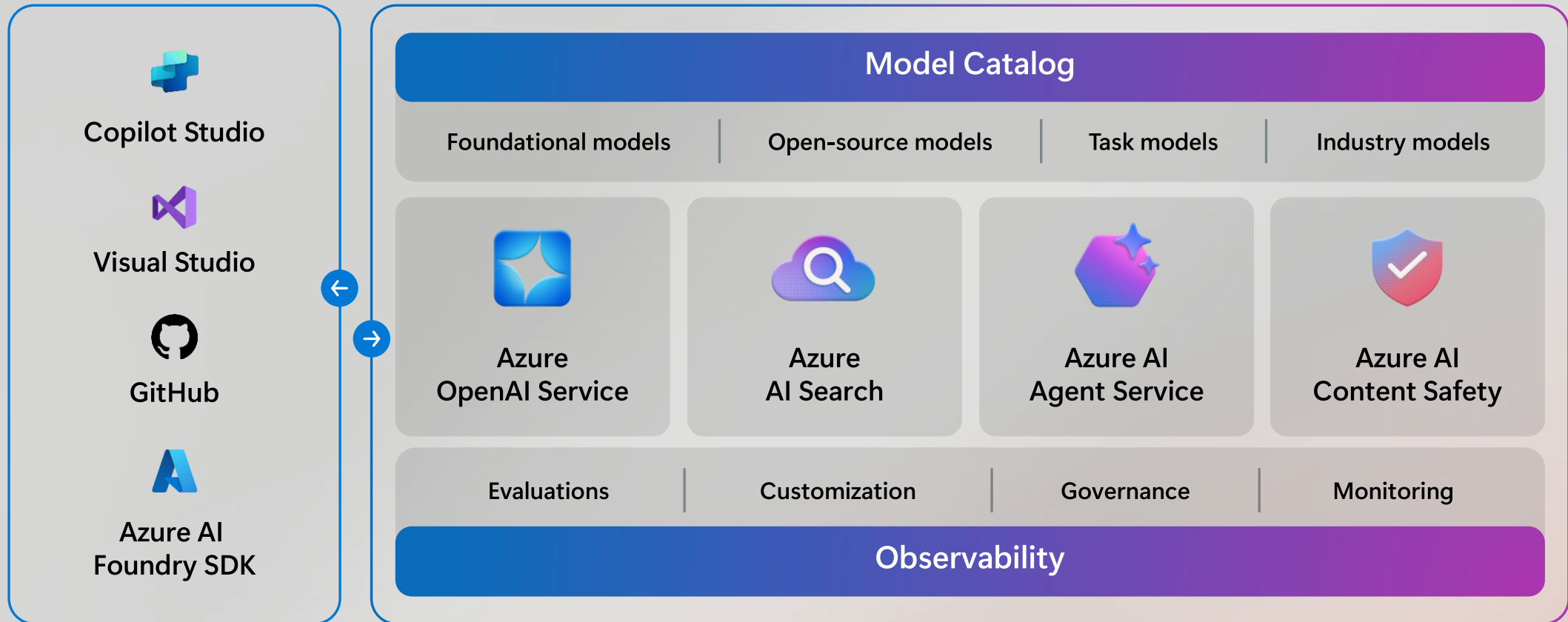
## Azure AI Foundry



-  Build your own AI assistant
-  Chat with your data
-  Analyze and summarize documents
-  Generate code and documentation
-  Deliver personalized recommendations
-  Improve information discovery
-  Generate engaging content
-  Process transactions and detect fraud
-  Improve forecasting



# Azure AI Foundry



Azure AI Foundry is designed for developers to:

- Build generative AI applications on an enterprise-grade platform.
- Explore, build, test, and deploy using cutting-edge AI tools and ML models, grounded in responsible AI practices.
- Collaborate with a team for the full life-cycle of application development

# Azure AI Model Catalog

Empowering  
you to find the  
best model for  
every use case.


Avoid model lock-in


Flexible model selection


Curated for enterprise


Explore, compare, and  
swap models quickly


LLMs and SLMs	Regional and domain specific	Open and proprietary	Modalities, tasks, and tools
<b>Flagship LLMs</b> <ul style="list-style-type: none"><li>• GPT-4</li><li>• Mistral Large</li><li>• Llama3 70b</li><li>• Llama 405B</li><li>• DeepSeek-R1</li></ul> <b>Small language models</b> <ul style="list-style-type: none"><li>• Phi3</li><li>• Mistral OSS models</li><li>• Llama3 8b</li><li>• Ministral</li></ul>	<ul style="list-style-type: none"><li>• Core42 JAIS Arabic language LLM</li><li>• Nixtla TimeGEN-1 Timeseries forecasting</li><li>• NTT DATA tsuzumi</li><li>• Industry models from Bayer, Fidelity, Sight Machine, Rockwell Automation, Cerence, HF</li></ul>	100s of open models from Hugging Face  Open models from Meta, Databricks and Snowflake, NVIDIA	<b>Multi-modal</b> <ul style="list-style-type: none"><li>• GPT-4o, Phi3-vision, Bria AI</li></ul> <b>Image generation</b> <ul style="list-style-type: none"><li>• DALL-E 3, Stability AI</li></ul> <b>Embedding models</b> <ul style="list-style-type: none"><li>• Ada, Cohere</li></ul>


 Microsoft Phi


 Azure OpenAI


 Mistral AI


 Meta AI


 Databricks


 Cohere


 Hugging Face

 NVIDIA

 DeepSeek-R1

 Nixtla

 G42

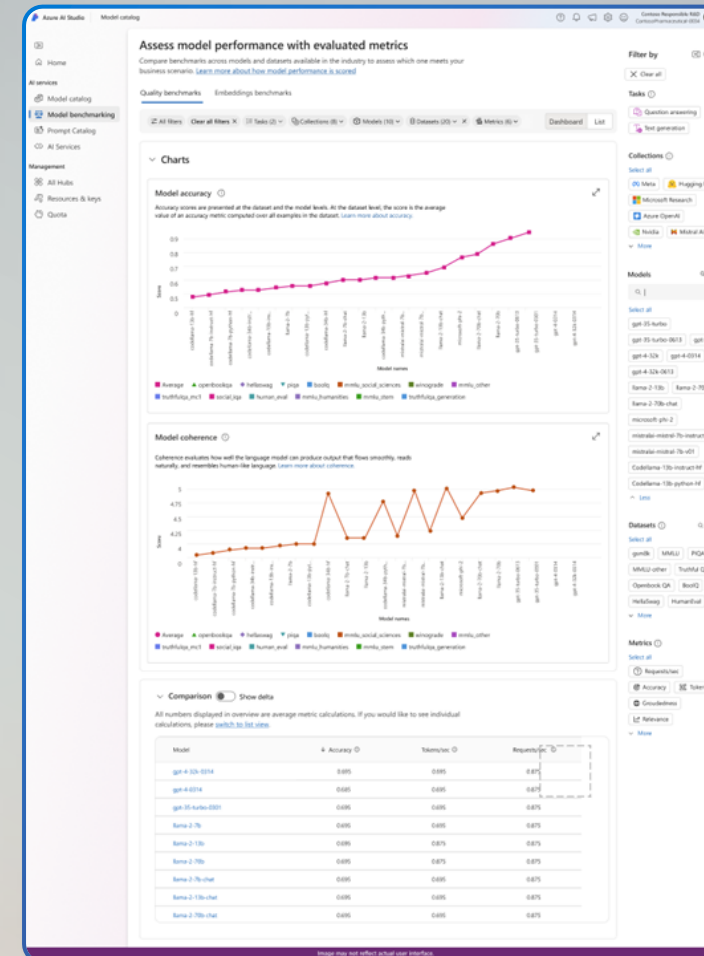
 Snowflake

# Model benchmarking

Model Benchmarking enables you to review and compare the performance of various AI models, simplifying the selection process and allowing users to make confident choices with their modeling needs.

- Gain quality, performance, and cost metrics for Azure OpenAI Service, Llama 2 family, Code Llama, and Mistral models
- Access pre-built metrics and benchmark comparison models within the same build, train, deploy environment
- Compute benchmark scores at both the task (dataset) and model levels by utilizing public datasets, yielding a model score for each dataset
- Compare scores of multiple models across datasets and tasks
- Benchmark results originate from public datasets; Azure AI evaluation pipelines download data from original sources, extract prompts from each row, generate model responses, and then compute relevant accuracy metrics

API and model choice



Enable the comparison of models based on accuracy and empower users to make data-driven decisions, ensuring their AI solutions are optimized for the best performance.



# AI Foundry SDK for streamlined development



Create an  
AI project to  
connect services  
and data



Use a common  
inferencing API  
for our most  
popular models



Use agents  
to unlock another  
level of intelligence

Automatically take actions,  
including self-correct

---

Integrate your existing data  
and services (Bing Search,  
Azure AI Search, Microsoft  
Sharepoint, Microsoft Fabric)



Deploy apps  
to Azure using  
pre-built  
templates



# A complete package

## Azure AI Foundry SDK – Agent Service

### Built-in enterprise readiness

BYO-file storage  
(coming soon)

BYO-search index

OBO Authorization Support

Enhanced Observability

### Extensive Ecosystem of Tools

#### Knowledge



Microsoft Fabric\*



SharePoint\*



Grounding with Bing Search



Azure AI Search



Files (local or Azure Blob)



Your own licensed data\*



File Search



Code Interpreter

#### Actions



Azure Logic Apps\*



OpenAPI 3.0 Specified Tools



Azure Functions

### Model Catalog



**Azure OpenAI Service**  
(GPT-4o, GPT-4o mini)

### Models-as-a-Service



Llama 3.1-405B-Instruct



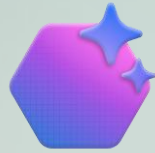
Mistral Large



Cohere-Command-R-Plus

\*Indicates feature is coming soon

Public Preview



# Introducing Azure AI Agent Service

Empower developers to securely build, deploy, and scale AI agents with ease

Rapid Development  
and Automation

Extensive Data  
Connections

Flexible Model  
Selection

Enterprise-grade  
Security

[AI.Azure.com](https://ai.azure.com)

# When do I use AI agents?

**Automate Complex or repetitive tasks** that requires human intelligence like **data analysis, natural language processing**.

**Enhance Human Capabilities or Augment Human Decision Making** such as providing **recommendations, feedback or guidance based on data or preference**.

**Create engaging and interactive experiences**, such as games, simulations or virtual AI assistants that can **adapt to user behavior and preferences**.

**Explore and Discover new knowledge or solutions**, such as finding optimal strategies, **generating novel designs or solving hard problems that are beyond human reach**.

**Improve Social and Environmental outcomes**, such as supporting education, health or sustainability initiatives that can benefit from AI agents **scalability, efficiency or creativity**.



# AI Agents for many Business Use Cases

## PRIVACY-COMPLIANT DATA COLLECTION

- Legal Agent: Ensures privacy regulations.
- Marketing Agent: Collects customer data.

## CONTRACTOR INVOICE VERIFICATION

- Procurement Agent: Manages contractor payments.
- Invoice Reconciliation Agent: Validates invoices.

## IT SUPPORT AUTOMATION

- HR Agent: Handles technical issues.
- Tech Agent: Resolves support requests.

## PRODUCT COMPLIANCE ASSURANCE

- Legal Agent: Validates industry standards.
- Product Agent: Monitors compliance.

## PRODUCT QUALITY MONITORING

- Product Agent: Identifies defects.
- Tech Agent: Suggests improvements.

## VENDOR EVALUATION AND COST OPTIMIZATION

- Procurement Agent: Selects suppliers.
- Product Agent: Assesses quality.

## SOFTWARE COMPLIANCE MANAGEMENT

- Tech Agent: Ensures licensing compliance.
- Legal Agent: Reviews software contracts.

## EMPLOYEE DEVELOPMENT RECOMMENDATIONS

- HR Agent: Recommends training programs.
- Product Agent: Suggests career growth opportunities.

## VENDOR CONTRACT NEGOTIATION

- Legal Agent: Evaluates contracts.
- Procurement Agent: Negotiates terms.

## INTELLECTUAL PROPERTY COMPLIANCE

- Marketing Agent: Ensures IP adherence.
- Legal Agent: Reviews content.

## EMPLOYEE ONBOARDING AUTOMATION

- HR Agent: Verifies documents, generates contracts.
- Legal Agent: Ensures compliance with employment laws.

## MARKETING CAMPAIGN COST ANALYSIS

- Invoice Reconciliation Agent: Analyzes costs.
- Marketing Agent: Evaluates ROI.

## LEGAL COMPLIANCE IN MARKETING CONTENT

- Legal Agent: Reviews marketing materials.
- Marketing Agent: Ensures compliance.

## PERSONALIZED PRODUCT RECOMMENDATIONS

- Product Agent: Analyzes customer behavior.
- Marketing Agent: Tailors recommendations for campaigns.

## TAX-COMPLIANT EXPENSE REPORTING

- Expense Billing Agent: Ensures tax compliance.
- Legal Agent: Reviews expenses.

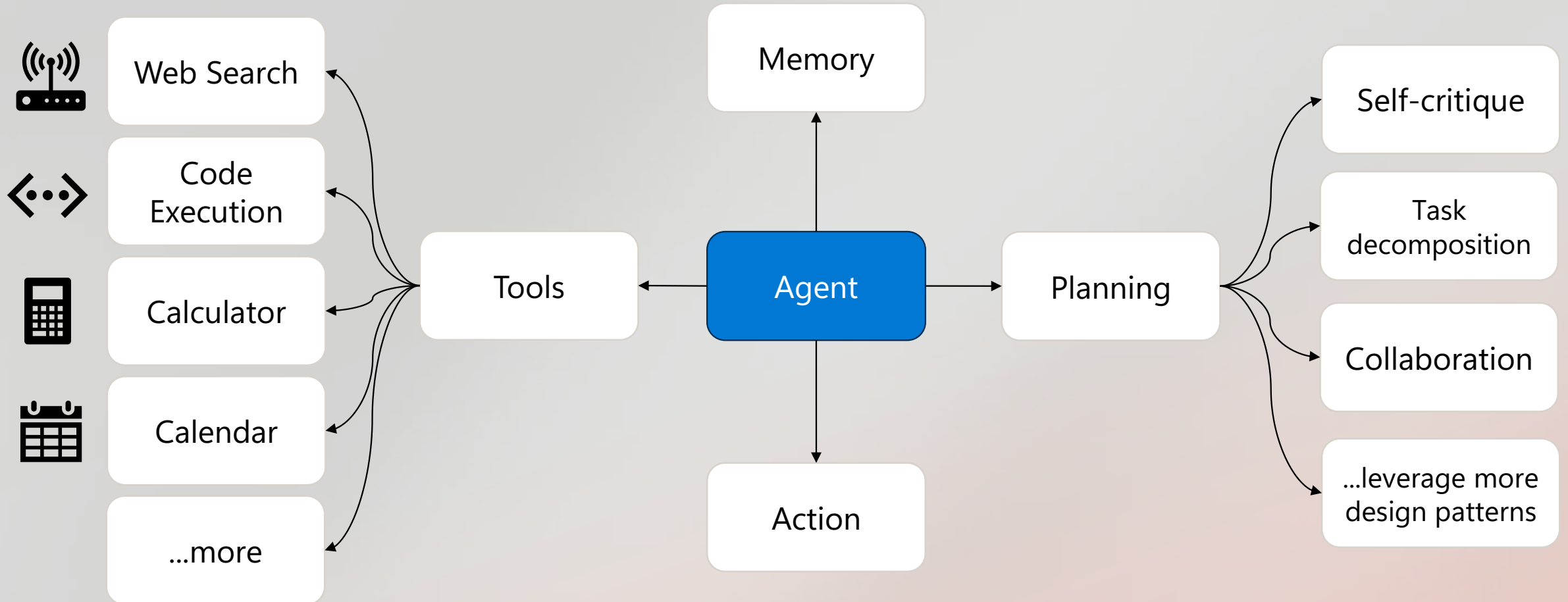
## SUPPLY CHAIN OPTIMIZATION

- Tech Agent: Predicts demand, manages inventory.
- Procurement Agent: Automates purchasing decisions.

## EXPENSE REPORTING AND INVOICE RECONCILIATION

- Expense Billing Agent: Verifies receipts.
- Invoice Reconciliation Agent: Matches invoices with expenses.

# Agentic AI capabilities



# How does your agent work?

Python

Copy

```
agent = project_client.agents.create_agent(  
    model="gpt-4o-mini",  
    name="my-agent",  
    instructions="You are helpful agent",  
    tools=code_interpreter.definitions,  
    tool_resources=code_interpreter.resources,  
)
```



## Knowledge Sources

(search, files, databases, storage etc.)



## Models

(Azure OpenAI Service, Models-as-a-Service)



## Actions

(Pre-built or custom tools to automate processes)

# Build intelligent apps with Azure AI services

Leverage out-of-the-box and customizable APIs and multimodal models

## Azure OpenAI Service

- Access to powerful AI models
- Scalable development
- Compliance & security
- Integration with other Azure Services

## Azure AI Search

- AI enrichment & semantic ranking
- Generative AI content creation
- Vector search for data organization

## Azure AI Speech

- Speech to text (including the Whisper model on Azure OpenAI Service)
- Text to speech
- Speech translation
- Speaker recognition

## Azure AI Vision

- Image and face analysis
- Custom model training
- Face detection and recognition
- Document text extraction

## Azure AI Content Safety

- AI-driven content moderation for enhanced safety
- Customize safety thresholds for diverse user types
- Detect and prevent Jailbreak Risk from XPIA attacks

## Azure AI Document Intelligence

- Automated documentation generation
- Documentation quality analysis
- Interactive documentation experiences
- Natural language understanding for documentation

## Azure AI Language

- Task-optimized AI models for text analytics
- Custom industry-specific AI for healthcare
- Custom, industry-specific models

## Azure AI Translator

- Multilingual text and speech translation
- Synchronous and asynchronous translation request support
- Native translation of documents and manuals

# Comparison Chart

Feature/Aspect	Persona-based Copilots	Microsoft 365 Copilot	Copilot Studio	Azure AI Foundry
Purpose	Specialized copilots tailored for user personas.	Enhancing productivity within Microsoft 365 apps.	Authoring and customizing copilots for specific use cases.	Enterprise-grade AI adoption with customizable solutions.
Target Users	End-users needing tailored copilots for specific roles.	Knowledge workers and professionals using Office apps.	Developers and knowledge workers creating copilots for apps or workflows.	Developers, data scientists, and enterprises.
Capabilities	Focused assistance for specialized tasks or industries.	Integrates generative AI in Word, Excel, Teams, etc.	Building, testing, and deploying custom copilots.	Large-scale AI model training, deployment, and optimization.
Integration	Can integrate across platforms based on persona needs.	Embedded directly into Microsoft 365 ecosystem.	Tightly integrates with Azure AI Foundry and APIs.	Integrates with Azure AI services, data platforms, and custom ML models.
Customization	Moderate: Persona-based customization predefines scope.	Limited: Customization through settings or plugins.	High: Enables bespoke copilots for specific workflows.	High: Supports tailored AI models and pipelines.
Pricing	Varies based on implementation and platform usage.	Microsoft 365 subscription plus Copilot add-on fee.	Subscription (\$200/month for 25K messages) or pay-as-you-go.	Metered, capacity packs, or subscription-based.
Key Differentiator	Persona-driven AI designed for specific roles/tasks.	Seamless integration within Microsoft Office apps.	Flexibility in creating custom copilots across apps or tools.	Advanced enterprise tools for scalable, bespoke AI projects.
Example Use Cases	Virtual assistants for healthcare, education, or HR tasks.	Generating reports in Excel or drafting emails in Outlook.	Building a customer service chatbot or workflow assistant.	Developing an AI system for predictive analytics or fraud detection.
Business Outcome	Provide highly personalized, role-specific assistance to boost employee performance and job satisfaction.	Increase productivity, automate routine tasks, and enhance collaboration within Microsoft 365 apps.	Improve customer engagement and optimize workflow automation across apps.	Drive efficiency and innovation in large-scale enterprise applications (e.g., predictive analytics, automation).
Deployment	Cloud-based or on-device, depending on persona need.	Cloud-based within Microsoft 365 services.	Cloud-based with Azure dependencies.	Cloud-based, with on-prem options for enterprise solutions.
Gaps/Limitations	Less flexible for tasks requiring general-purpose AI tools.	Not suitable for workflows outside the Microsoft ecosystem.	Limited to AI-based copilots; lacks broader productivity tools.	Complex setup may not suit smaller businesses or non-enterprise users.



# Capabilities Chart

Feature/Aspect	Microsoft 365 Copilot	Persona-based Copilots (D365 Copilot for Sales example)	Copilot Studio	Azure AI Foundry
Models	Fine-Tuned M365 App Specific	Fine-Tuned Persona Specific	Fine-Tuned Best-in-Class	<a href="#">+3000 model catalog</a> <a href="#">Custom models</a>
Deployment	<a href="#">License Allocation</a>	<a href="#">License Allocation</a>	<a href="#">Tenant Capacity or Meter</a>	<a href="#">Dedicated</a> <a href="#">Serverless</a>
Integration	<a href="#">Microsoft Graph</a> <a href="#">Power Platform</a>	<a href="#">Copilot Studio</a>	<a href="#">Microsoft Graph</a> <a href="#">Power Platform</a>	<a href="#">Multiple Options</a> <a href="#">Azure AI Services</a>
Development	<a href="#">Extend Microsoft 365 Copilot</a>	<a href="#">Deploy for D365 or Salesforce</a>	<a href="#">Studio Web UI</a>	<a href="#">Studio Web UI</a> <a href="#">AI Foundry SDK</a>
Knowledgebase (RAG)	<a href="#">Built-In</a>	<a href="#">Built-In</a>	<a href="#">Built-In</a> <a href="#">BYOM and Custom Engine</a>	<a href="#">Azure AI Search</a>
Action	Built-In M365 App Specific	<a href="#">Built-in</a>	<a href="#">Built-In</a> <a href="#">Power Platform</a>	<a href="#">Built-in</a> Pro-Code Actions
Orchestration	Proprietary Generative Orchestration	Proprietary Generative Orchestration	Built-In Classic or <a href="#">Generative Orchestration</a>	<a href="#">Prompt Flow</a> <a href="#">Semantic Kernal</a> <a href="#">LangChain</a> <a href="#">LlamaIndex</a> <a href="#">AutoGen</a>
Agents	<a href="#">Extend</a>	<a href="#">Built-in</a>	<a href="#">Built-In</a>	<a href="#">Azure AI Agent Service</a>
Channels	<a href="#">Built-in</a> <a href="#">M365 App Specific</a>	<a href="#">Built-in</a> <a href="#">M365 App Specific</a>	<a href="#">Internal/External Channels</a>	<a href="#">REST Endpoint Serving</a>
Responsible AI	<a href="#">Built-in</a>	<a href="#">Built-in</a>	<a href="#">Built-in</a>	<a href="#">Azure AI Content Safety</a>
Monitoring & Reporting	<a href="#">Copilot Analytics and Dashboards</a>	<a href="#">Copilot Analytics and Dashboards</a>	<a href="#">Power Platform Admin Center</a>	<a href="#">Multiple Monitoring Options</a>

# Resources

## Agents Principles

[AI agents — what they are, and how they'll change the way we work](#)

[Microsoft's Agentic AI Frameworks: AutoGen and Semantic Kernel](#)

## Agents with AI Foundry

[Introducing Azure AI Foundry Agent Service to scale your AI agents \(video\)](#)

[Azure AI Agent Service documentation](#)



Thank you