

Gelöst:
Wie KI Aufgaben
übernehmen kann, die
niemand machen will



Umfrage zu AI Agents (agentische KI)



Themen



NIKLAS WEBER

AXIANS
KEY ACCOUNT MANAGER



niklas.weber@axians.at

Automatisierung von
Routinetätigkeiten
mit Agentischer KI

Autonome Storage-
Infrastruktur

Software Entwicklung
mit Agentischer KI
Unterstützung



REINHOLD ENGELBRECHT
IBM TECHNOLOGY
TECHNICAL SPECIALIST

r_engelbrecht@at.ibm.com



KARL HOHENAUER
IBM TECHNOLOGY
STORAGE PRESALES EUROPE

karl.hohenauer@at.ibm.com



REINHOLD ENGELBRECHT
IBM TECHNOLOGY
TECHNICAL SPECIALIST

r_engelbrecht@at.ibm.com

ZZZ

Search: "System Manual PDF"

Results found:
Technical Manual - Page 12

Search: "System Manual PDF"

Results found:
Technical Manual - Page 12

Search: "Wiring Diagram"

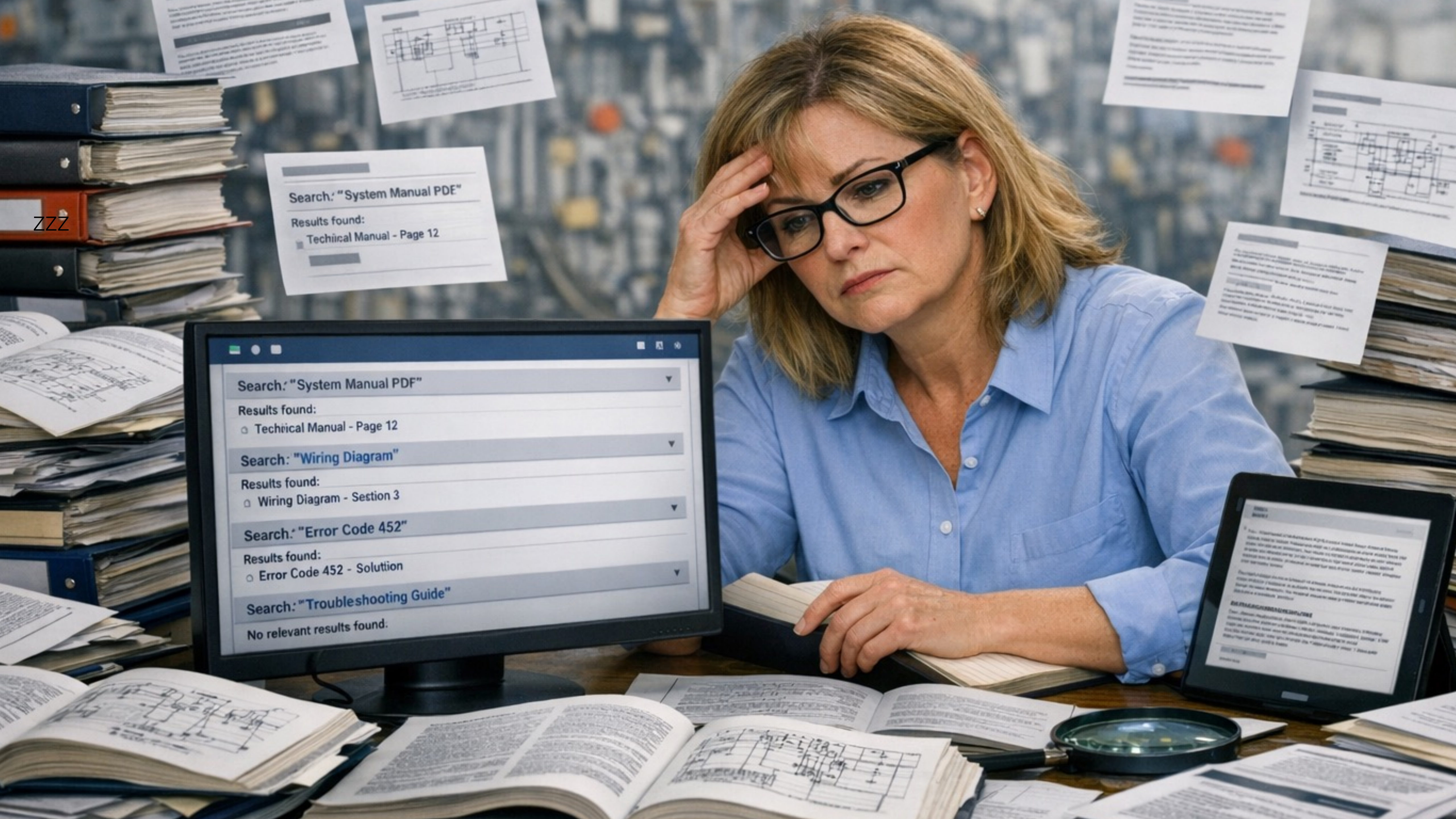
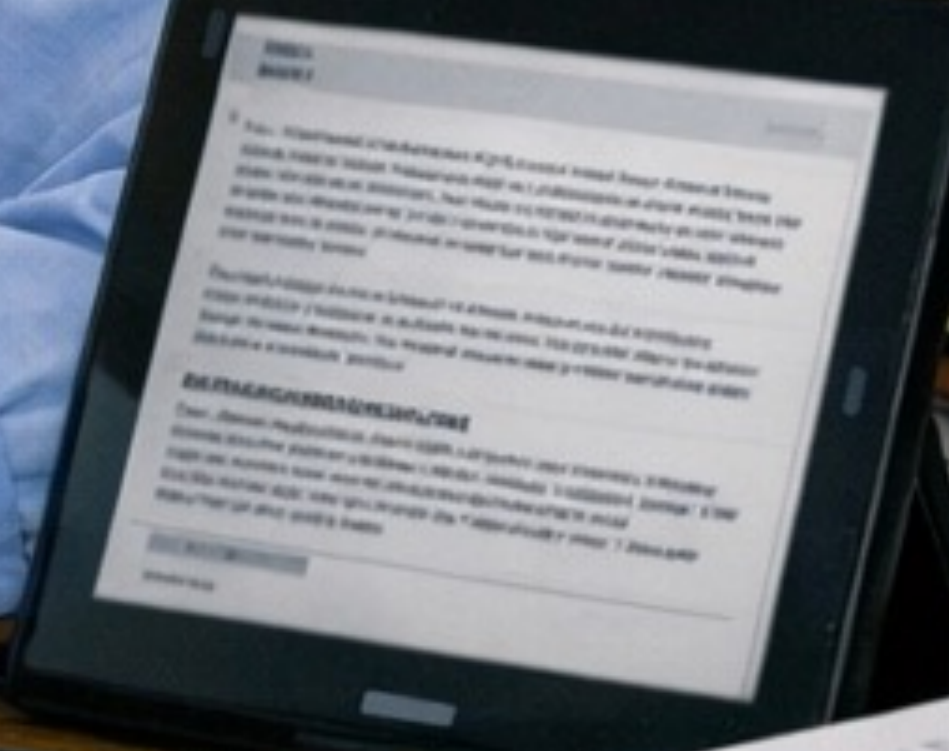
Results found:
Wiring Diagram - Section 3

Search: "Error Code 452"

Results found:
Error Code 452 - Solution

Search: "Troubleshooting Guide"

No relevant results found.



Was wäre, wenn ...

... das mühsame Wälzen von Handbüchern und Anleitungen der Vergangenheit angehören würde?

... Sie keine Sekunde mehr mit der Suche in PDFs oder auf Webseiten verschwenden müssten?

... eine Agentische KI Ihr Unternehmenswissen verwaltet und Ihnen sofort die perfekte Antwort liefert – ohne dass Sie auch nur ein Dokument öffnen?



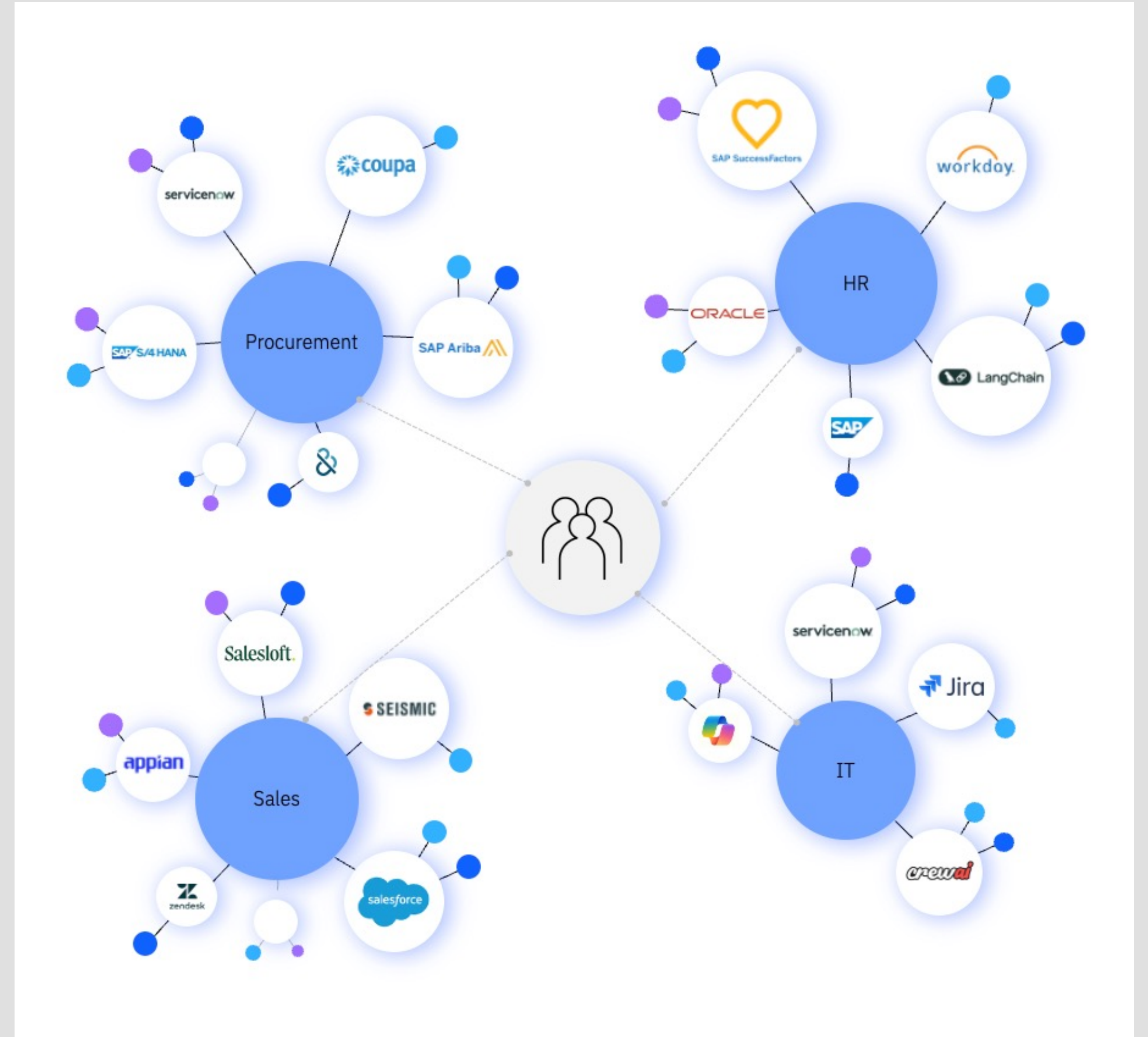


Was wäre, wenn ...

... Sie kein Experte für jede einzelne Software in Ihrem Unternehmen sein müssten?

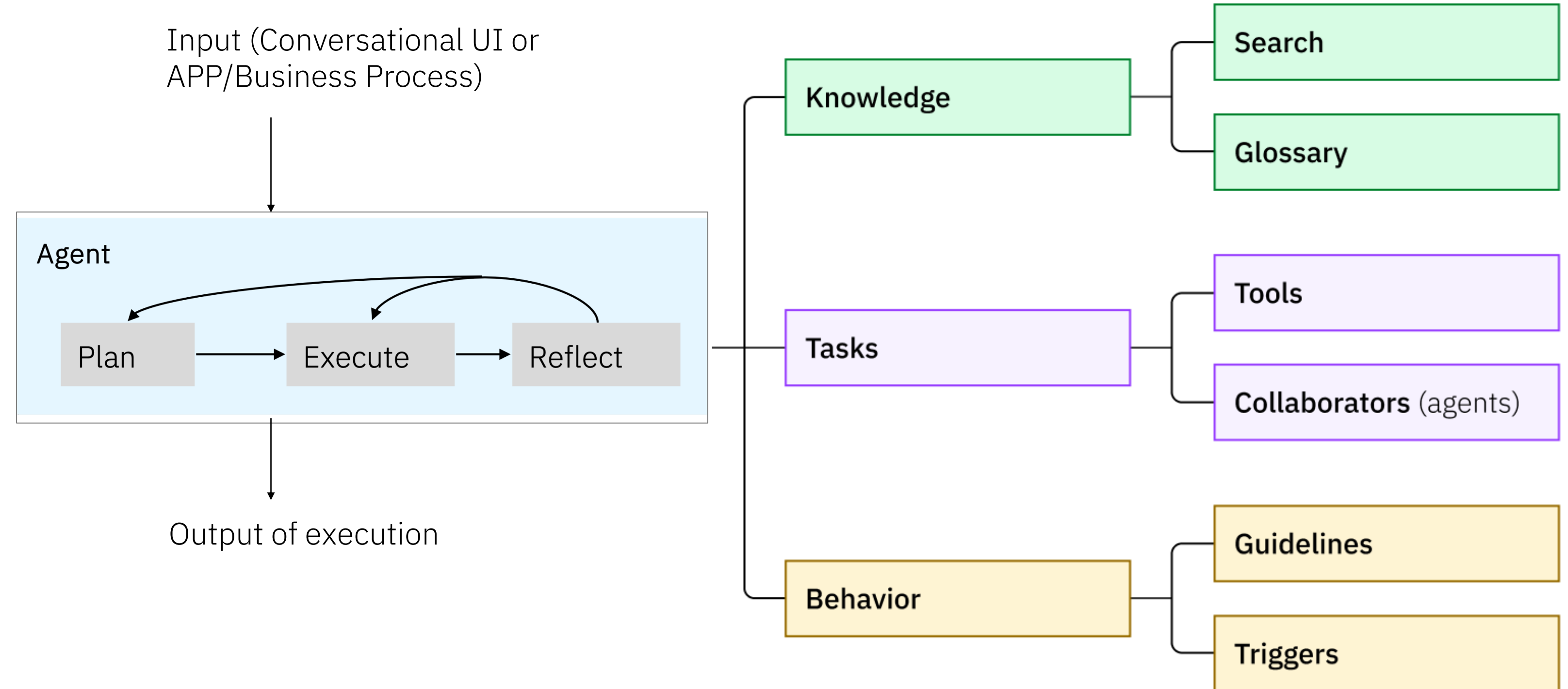
... Sie mit Ihren Anwendungen so natürlich kommunizieren könnten wie mit einem Kollegen?

... Agentische KI nicht nur Antworten liefert, sondern Aufgaben eigenständig für Sie erledigt?



Agentische KI

Ein KI-Agent ist ein **autonomes System**, das Werkzeuge nutzen und mit anderen Agenten zusammenarbeiten kann, um Aufgaben zu planen und umzusetzen. Er nutzt dabei **Generative KI** und verfügt auch über ein Gedächtnis und Zusammenhänge.



Demo

IBM watsonx Orchestrator ist ein Multi-Agent, Multi-Tool-Supervisor, Router und Planer, der komplexe Aufgabenausführung ermöglicht.

Client Zero: Der Weg zu 4,5 Milliarden \$ (und es wird mehr)
Produktivitätszuwächse durch KI seit 2023

AskIBM
Eine zentrale, einheitliche Schnittstelle für alle IBMer, die mit mehreren Domänenassistenten verbunden ist

IBM AskHR

10M

Jährliche HR-Interaktionen vollständig durch KI gelöst

40%

Reduzierung des HR-Budgets

+55

Verbesserung des HR NPS-Scores

IBM AskIT

80%

Anfragen über AskIT gelöst

100

Tage, um AskIT von Grund auf zu bauen + auszurollen

50%

Reduzierung der Support-Tickets nach der Bereitstellung

IBM AskSales

180K

Stunden pro Woche beim Sammeln von Informationen gespart

5,000

Verkäuferfragen und Antworten pro Woche

40%

Verbesserung der Qualifizierung von Outreach-Inhalten

IBM Procurement

85%

Bestellungen werden jetzt dunkelbearbeitet'

50%

Verkürzung der Zeit für manuelle, repetitive Aufgaben

15%

Reduktion in Subunternehmern

IBM AskIncentives

96%

Sales-Plan Anfragen mit KI beantwortet

90%

Größere Genauigkeit bei Rückstellungen

76%

Produktivitätssteigerung bei Betreuung von 22.000 Verkäufern

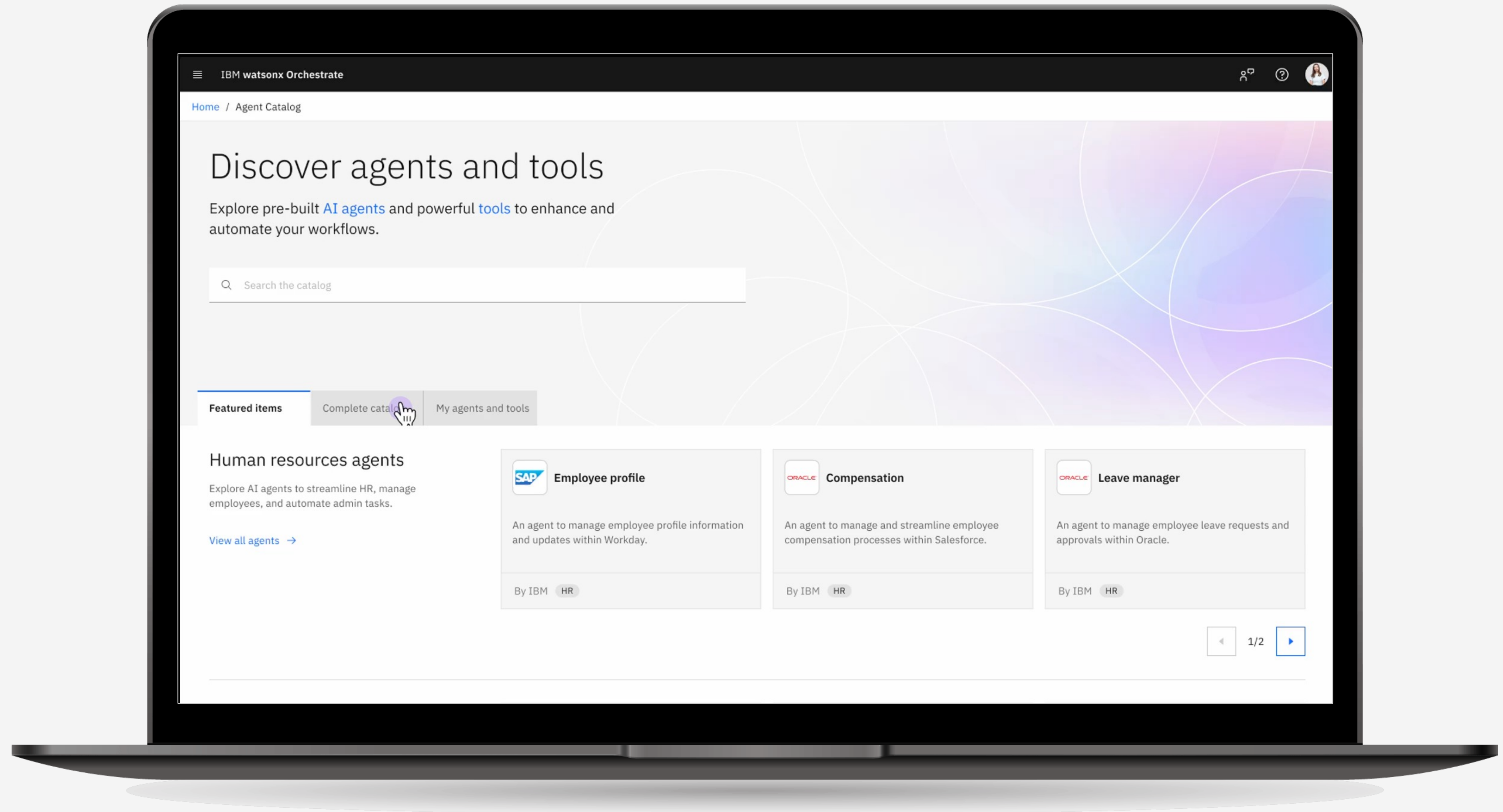
Vorgefertigte Agenten

beschleunigen die Zeit zum Go-Live

– **Vorgefertigte Agenten** sind mit Tools und Integrationen ausgestattet, um in diesem Bereich sofort Mehrwert zu schaffen

– Sie verfügen über tiefe, **native Integrationen** zu den wichtigsten Anwendungen, auf die Unternehmen heute angewiesen sind, darunter SAP, Oracle, Salesforce und viele weitere

– All diese kritischen Integrationen werden von IBM gepflegt und aktuell gehalten



Customer Service



Sales



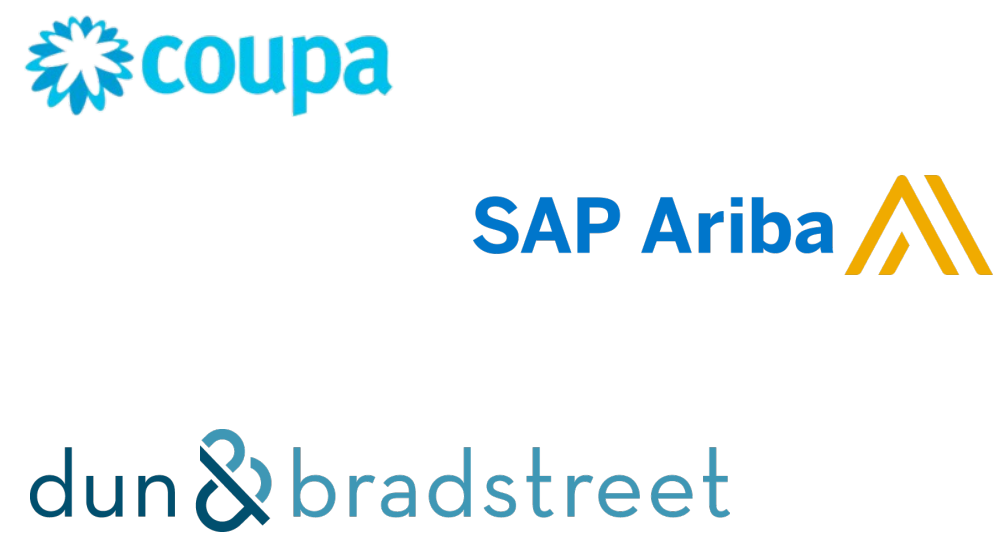
Supply Chain



IT



Procurement



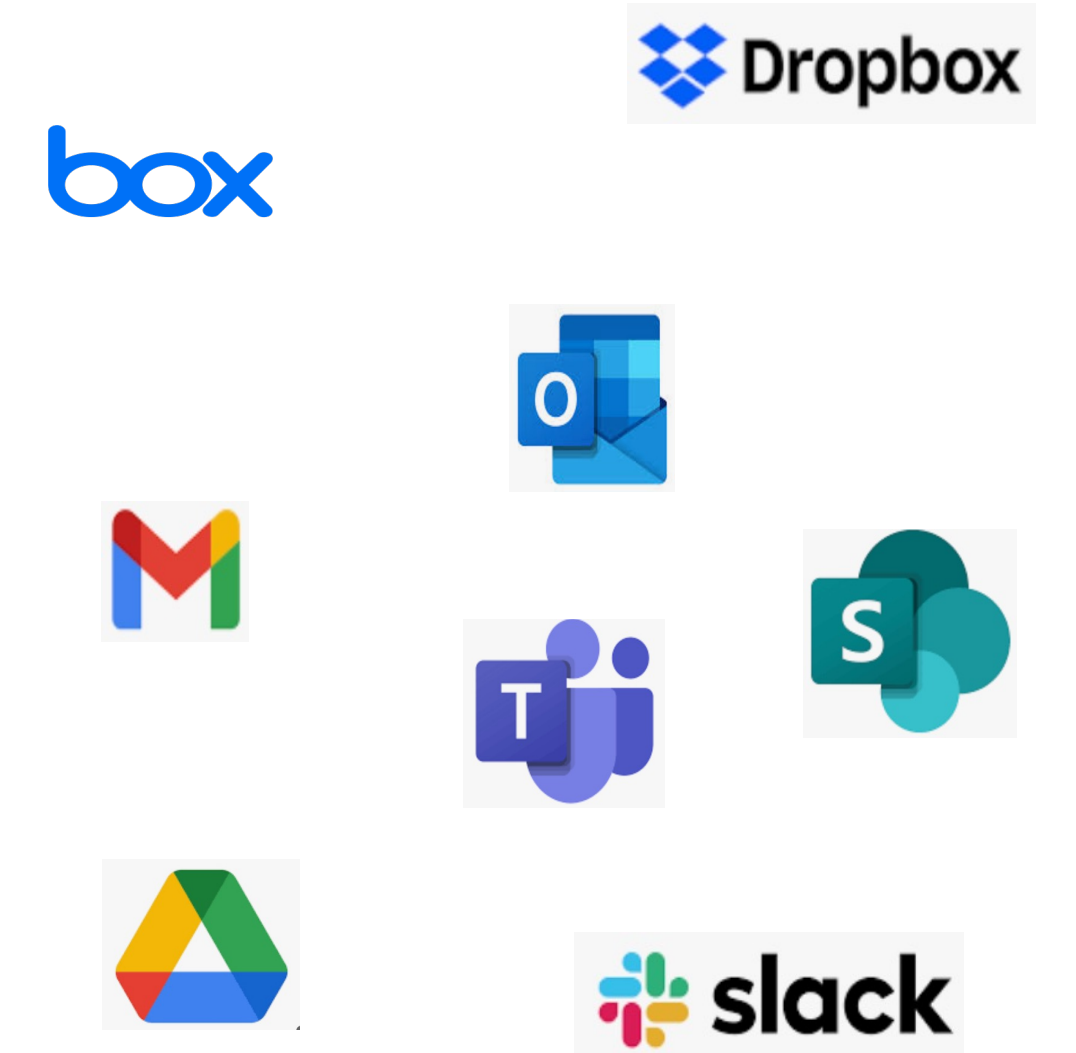
Finance



HR



Productivity



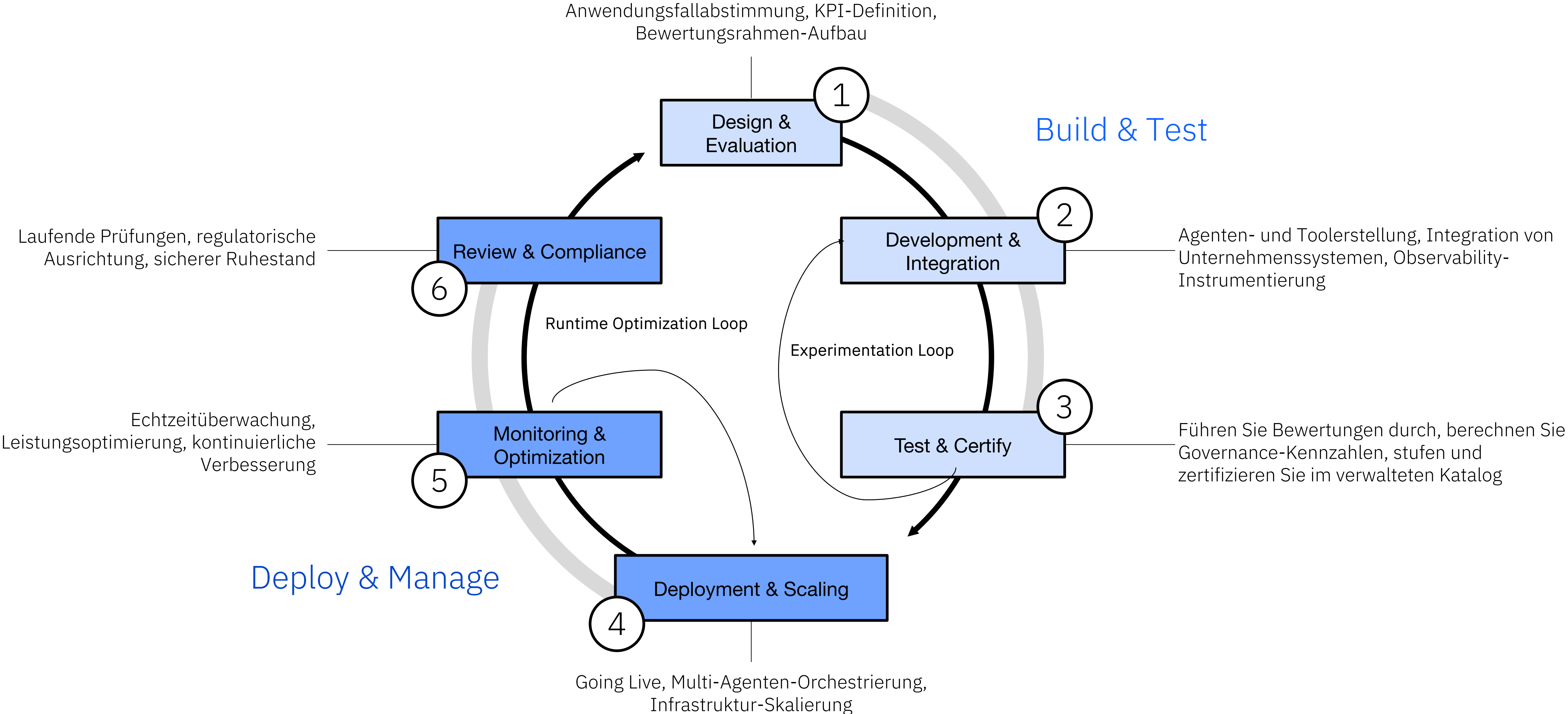
Unternehmen benötigen flexible Möglichkeiten zum Erstellen von Agenten

No-code	Eine intuitive, einfach zu bedienende Benutzeroberfläche für nicht-technische Nutzer ermöglicht es Ihnen, in wenigen Minuten einen Agenten zu erstellen.
Chat to build	Erstellen Sie einen Agenten über eine Eingabeaufforderung in natürlicher Sprache mit IBM Project Bob-Integration.
Pro-code	Unser Agent Development Kit ermöglicht Entwicklern eine detaillierte Kontrolle über das Build-Erlebnis über eine CLI.
Flow-builder	Die native Integration mit Langflow ermöglicht das schnelle Prototyping von Arbeitsabläufen.
Drittanbieteragenten	Integriere Drittanbieter-Agenten und -Tools über A2A und MCP.

Building teamwork

Our flexible approach to agent and tool creation allows technical and nontechnical users to collaborate.

ADLC Agent Development Lifecycle



watsonx Orchestrate als flexible Agentische KI Unternehmensplattform

Flexibel, bietet viele Optionen bezüglich ...

- Zugriff (Webseite, eingebettet, Teams, Slack, API, ...)
- Sprachmodelle (LLM)
- Hybride Bereitstellung (SaaS, On-Premise, Developer Edition)
- Agentische vs. deterministische Automatisierungen
- Vektordatenbanken (RAG-Anwendungsfall)
- Externe Werkzeuge
- Externe Akteure
- Entwicklungswerkzeuge (von Python-Entwicklung bis No-Code)
- Sprachintegration (mehrere Anbieter)



Themen



NIKLAS WEBER

AXIANS
KEY ACCOUNT MANAGER



niklas.weber@axians.at

Automatisierung von
Routinetätigkeiten
mit Agentischer KI

Autonome Storage-
Infrastruktur

Software Entwicklung
mit Agentischer KI
Unterstützung



REINHOLD ENGELBRECHT
IBM TECHNOLOGY
TECHNICAL SPECIALIST

r_engelbrecht@at.ibm.com



KARL HOHENAUER
IBM TECHNOLOGY
STORAGE PRESALES EUROPE

karl.hohenauer@at.ibm.com

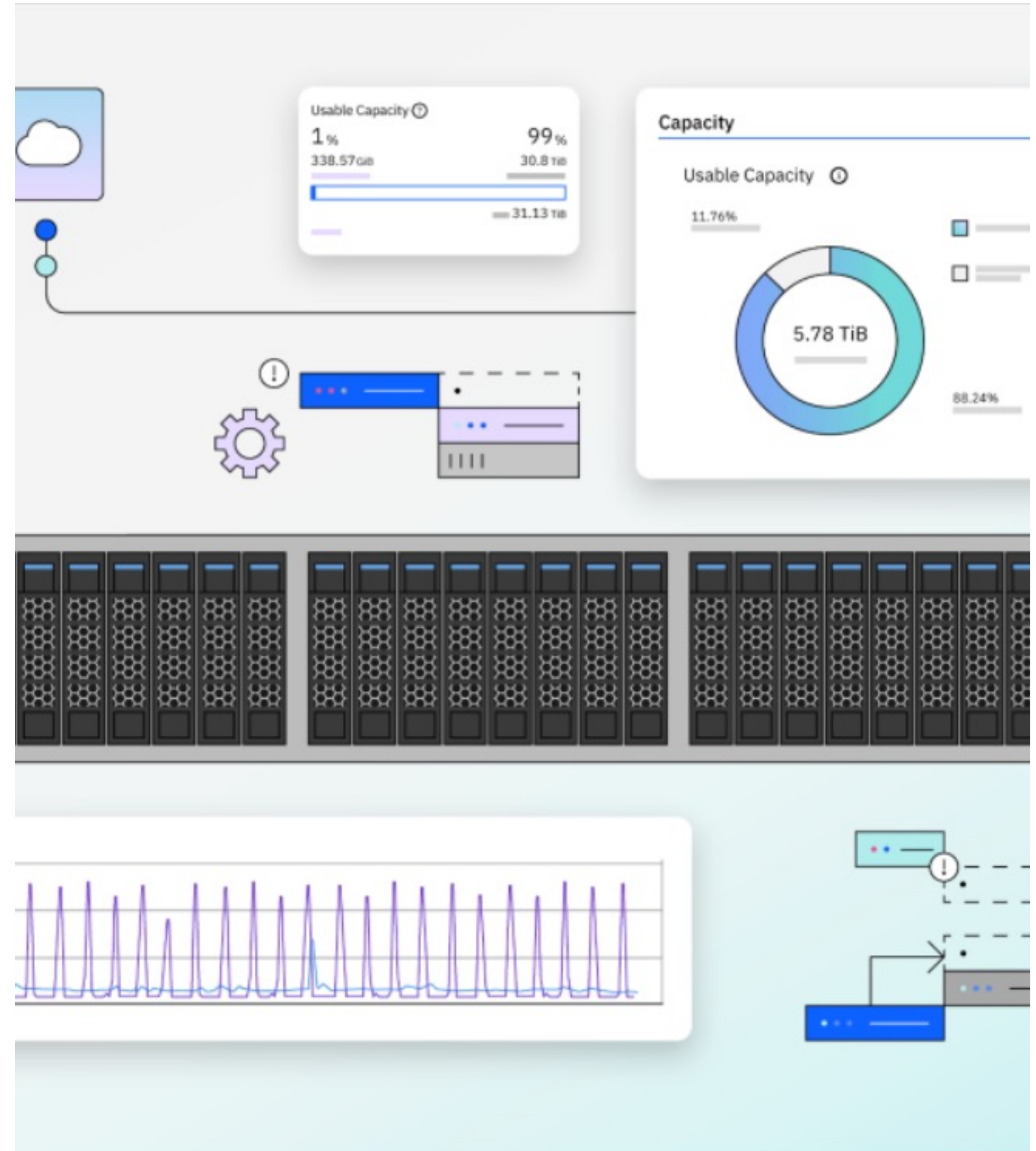


REINHOLD ENGELBRECHT
IBM TECHNOLOGY
TECHNICAL SPECIALIST

r_engelbrecht@at.ibm.com

IBM FlashSystem.ai

Karl Hohenauer, Storage Presales



Talk to your storage where you have an admin that never sleeps

Three fundamentals:

Human in the loop

- Human must initiate and authorize the action via natural language

Actions are on-prem

- One way communication to pull relevant storage information from the cloud

FlashSystem.ai never sleeps

- ... so you can!

*FlashSystem.ai is just part of the FlashSystem... you don't have to pay for it and it's powered by
watsonx.ai*

IBM FlashSystem 2026



FlashSystem C200

Capacity optimised, fixed config (2.3PBe)
for lower performance requirements
<200K IOPS, 1-2ms



FlashSystem 5600

1U entry level NVMe for general
purpose workloads
>450K IOPs, <0.5ms, >30GB/s, 2.4PBe



FlashSystem 7600

2U balanced performance and value
workhorse system
>800K IOPs, <0.5ms, >70GB/s, 7.2PBe



FlashSystem 9600

Extreme performance and scaling for mission
critical workloads
>3.0M IOPs, <0.5ms, >120GB/s, 11.8PBe



IBM **FCM** Gen4



IBM **FlashCore** Gen5 EDSFF



High Density, Low Footprint, Lowest Power in the industry - sustainable, less hardware to achieve performance
Best and consistent performance with FCM compression, deduplication, RTD and QLC 176-layer NAND
Cyber Vault, Safeguarded Copy and inline data corruption detection - unique in the industry

Powered by IBM **Storage Virtualize**



Managed, monitored and proactive support by IBM **Storage Insights**



Storage Virtualize
for Public Cloud

Hybrid Cloud integration
TCT scheduled offload to S3

SAN Volume Controller (SVC)



SA2 Storage Engine



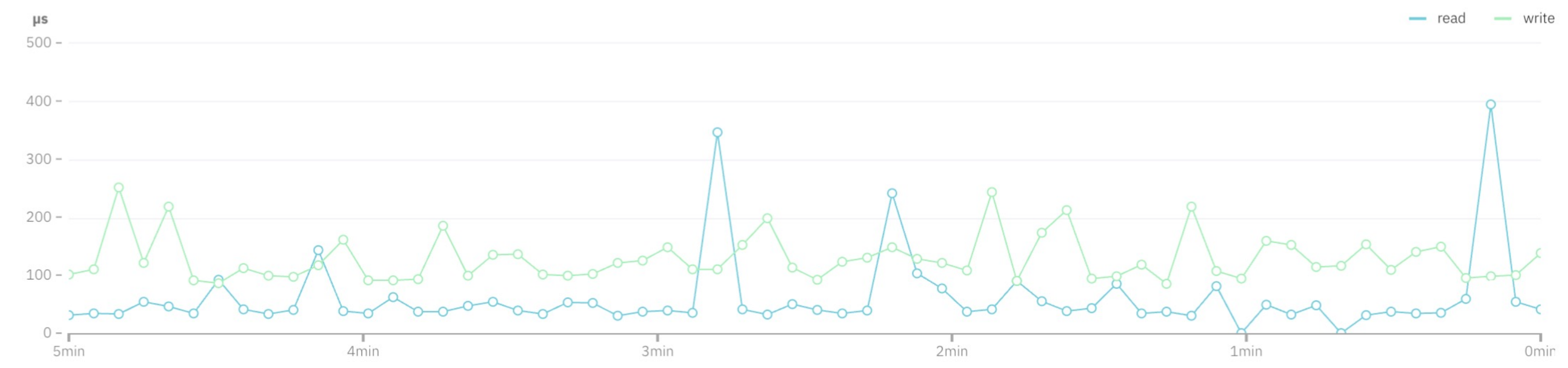
SV3 Storage Engine

FlashSystem 5015 & 5045



- FlashSystem grid
- Dashboard
- Monitoring
- Pools
- Volumes
- Hosts
- Policies
- Access
- Settings
- Storage partitions

Latency	read	write
138 μ s	41 μ s	138 μ s
Bandwidth	read	write
1 MBps	0 MBps	1 MBps
IOPS	read	write
65 IOPS	0 IOPS	65 IOPS
CPU Utilization	9 %	
Power Consumption	442 Watts	

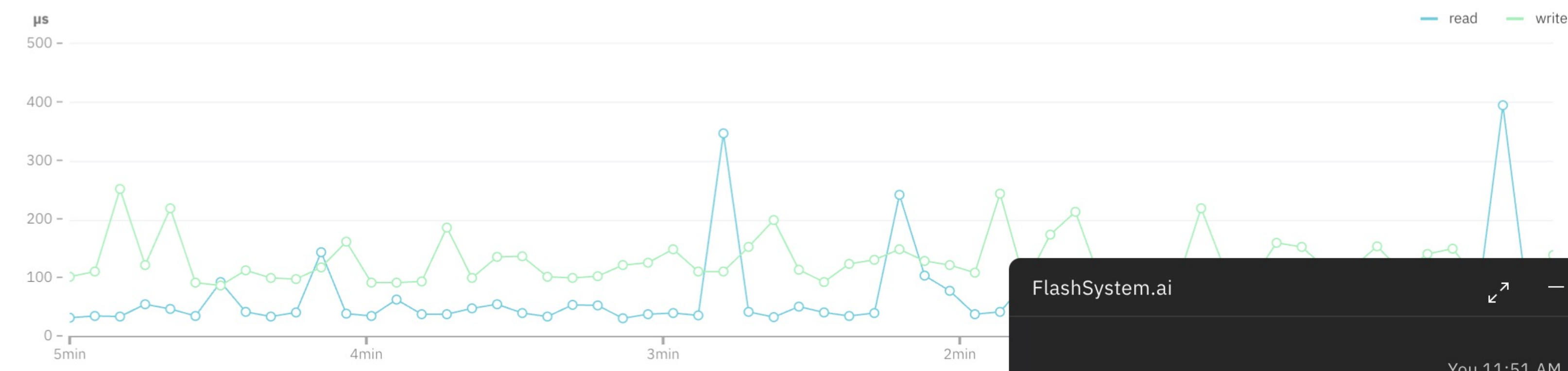


<p>Physical capacity</p> <p>21.39 TiB Total physical capacity</p> <p>Physical used: 1.94 TiB Physical available: 19.45 TiB</p>	<p>Logical capacity</p> <p>99.01 TiB Total logical capacity</p> <p>Logical used: 13.45 TiB Logical available: 85.56 TiB</p>	<p>Capacity savings</p> <p>4.2:1 Data reduction 6.22 TiB</p> <p>40.2:1 Total savings 11.14 TiB</p> <p>1.6:1 Thin-provisioning 4.92 TiB</p>
---	--	---

<p>Hardware Components</p> <p>✔ All Online</p> <p>Expand</p>	<p>Logical Components</p> <p>✔ All Online</p> <p>Expand</p>	<p>Connectivity Components</p> <p>✔ All Online</p> <p>Expand</p>
--	---	--



Latency	read	write
138 μ s	41 μ s	138 μ s
Bandwidth	read	write
1 MBps	0 MBps	1 MBps
IOPS	read	write
65 IOPS	0 IOPS	65 IOPS
CPU Utilization		
9 %		
Power Consumption		
442 Watts		



Capacity

Physical capacity

21.39 TiB Total physical capacity

Physical used: 1.94 TiB | Physical available: 19.45 TiB

Logical capacity

99.01 TiB Total logical capacity

Logical used: 13.45 TiB | Logical available: 85.56 TiB

Capacity savings

4.2:1 Data reduction (6.22 TiB)

40.2:1 Total savings (11.14 TiB)

System Health

Ransomware Threat Detection: ✔ | Version: 9.1.2.0

Hardware Components

✔ All Online

Expand ▼

Logical Components

✔ All Online

Expand ▼

Component 3

✔ All Online

Expand ▼

FlashSystem.ai ↶

You 11:51 AM

Hello! what are your capabilities?

@ FlashSystem.ai Agent

IBMFlashSystemAssistant – What I Can Do

I'm a specialized virtual administrator for IBM Storage FlashSystem environments. My focus is on managing every aspect of the FlashSystem stack, using a set of dedicated worker agents and system tools to ensure actions are accurate, up-to-date, and safe.

Core Capabilities

Area	What I Can Do
Volumes	List, create, r
Volumes	List, create, r

Type something... ➤



FlashSystem.ai



You 15:50

What can you do?



FlashSystem.ai agent 15:50

I'm a virtual assistant that can manage IBM FlashSystem storage for you. Using the built-in workers, I can:

- **Volumes** – list, create, rename, resize, move between volume groups, and show storage-pool details.
- **Volume groups** – list, create, rename, and adjust replication or snapshot policies.
- **Snapshots** – create snapshots, list volume- or group-level snapshots, and work with snapshot policies.
- **Replication** – list replication policies and answer questions about them.
- **Partitions** – list partitions and provide information about them.
- **Hosts** – list hosts, create FC/iSCSI/NVMe hosts, modify host settings, manage port-sets, and map volumes to hosts.
- **Host clusters** – list, create, modify clusters and map volumes to clusters.
- **System health** – retrieve health status and answer health-related queries.

In short, I can perform most day-to-day administrative tasks on a FlashSystem—provisioning storage, configuring protection, and checking the system's health—while keeping the interaction simple and conversational. Let me know what you'd like to do!

Type something...





FlashSystem.ai



You 15:52

In addition to English, what languages can I use?



FlashSystem.ai agent 15:52

Besides English, you can interact with me in many other natural languages, including:

- Spanish
- French
- German
- Portuguese (both Brazil and Portugal variants)
- Italian
- Dutch
- Russian
- Chinese (Simplified & Traditional)
- Japanese
- Korean

Feel free to ask your questions or give commands in any of these languages!

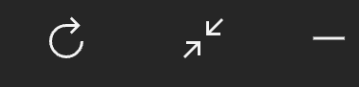



Type something...



- Partition
- fsai_demo**
- Volume groups
- Volumes
- Volume mappings
- Hosts
- Host clusters
- Replication policies
- Snapshot policies
- IP quorum
- Partnerships
- ←| Exit storage partition


FlashSystem.ai



 FlashSystem.ai agent 12:49
Hi! How can I help you today?


You 12:49

Hallo

 FlashSystem.ai agent 12:49
Hallo! Wie kann ich Ihnen mit Ihrem FlashSystem weiterhelfen?


You 12:49

Hola


 FlashSystem.ai agent 12:50
¡Hola! ¿En qué puedo ayudarle con su FlashSystem hoy?

You 12:50

Bonjour

 FlashSystem.ai agent 12:50
Bonjour! Comment puis-je vous aider avec votre FlashSystem aujourd'hui?



Type something... 

Latency 0 ms Read 0 ms Write 0 ms

Bandwidth 0 MBps Read 0 MBps Write 0 MBps

IOPS 0 Read 0 Write 0

What guardrails do you have?

FlashSystem.ai agent 15:53

I'm built with a set of safety "guardrails" that guide every interaction:

Area	What the guardrails do
Content safety	Block or refuse any request that involves illegal activity, self-harm, hate speech, harassment, extremist propaganda, or the creation of disallowed weapons or illicit instructions.
Privacy & data protection	Never reveal personal data about anyone (including you) that isn't already public, and I don't store or share conversation details beyond the current session.
Security	I can't provide instructions for hacking, bypassing security controls, or exploiting software/hardware vulnerabilities.
Ethical use	I avoid generating deceptive, fraudulent, or manipulative content (e.g., deep-fake text, false claims, impersonation).
Tool usage	I only invoke the specialized FlashSystem tools when they're needed for a user's storage-management request, and I always get the user's explicit consent before performing any action.
Accuracy	I double-check information from the system workers before presenting it, and I'm careful not to hallucinate details that I haven't verified.
User-centric behavior	I stay focused on the user's goal, avoid unnecessary technical jargon, and never ask for confirmation when I already have all required details.

These guardrails keep the interaction safe, respectful, and reliable while still letting me help you manage FlashSystem storage tasks efficiently.

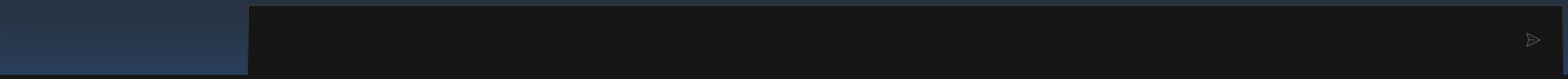
- Partition
- fsai_demo**
- Volume groups
- Volumes
- Volume mappings
- Hosts
- Host clusters
- Replication policies
- Snapshot policies
- IP quorum
- Partnerships
- ←| Exit storage partition

FlashSystem.ai

You 12:25

Create four volumes in the volume group, each of 50 GB

FlashSystem.ai agent 12:25



- Partition
- fsai_demo**
- Volume groups
- Volumes
- Volume mappings
- Hosts
- Host clusters
- Replication policies
- Snapshot policies
- IP quorum
- Partnerships
- ←| Exit storage partition

FlashSystem.ai

You 12:25

Create four volumes in the volume group, each of 50 GB

FlashSystem.ai agent 12:25 | Hide reasoning

- > ibm_flashsystem_list_storage_pools completed
- ...

Approval request

Create volume (50GB) in pool 'mdg0_child0' in volume group 'vg_ai_demo'

Latency 0 ms Read 0 ms Always allow

Reject

Allow once

- Partition
- fsai_demo**
- Volume groups
- Volumes
- Volume mappings
- Hosts
- Host clusters
- Replication policies
- Snapshot policies
- IP quorum
- Partnerships
- ←| Exit storage partition

FlashSystem.ai You 12:25

Create four volumes in the volume group, each of 50 GB

FlashSystem.ai agent 12:27 | Show reasoning >

All four 50 GB volumes have been created and placed in the **vg_ai_demo** volume group:

Volume Name	Size	Pool	Volume Group
ai_demo_vol1	50 GB	mdg0_child0	vg_ai_demo
ai_demo_vol2	50 GB	mdg0_child0	vg_ai_demo
ai_demo_vol3	50 GB	mdg0_child0	vg_ai_demo
ai_demo_vol4	50 GB	mdg0_child0	vg_ai_demo

The volume group is already safeguarded and using the **predefinedsspolicy0** snapshot policy.

Let me know if you'd like to:

- Attach any of these volumes to hosts or host clusters
- Resize or rename the volumes
- Create snapshots or modify policies
- Anything else you need on the FlashSystem

I'm ready to help with the next step!

Type something... ▶

- Partition
- fsai_demo
- Volume groups**
- Volumes
- Volume mappings
- Hosts
- Host clusters
- Replication policies
- Snapshot policies
- IP quorum
- Partnerships
- ←| Exit storage partition

Volume groups / vg_ai_demo

vg_ai_demo

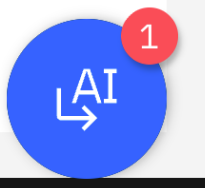
200.00 GiB Total Group Capacity


Replication Policy Safeguarded Snapshot Policy

Volumes (4) Policies (1) Snapshots (0) Cloud Snapshots

<input type="checkbox"/>	Name	↑	State	Provisioned capacity	Pool	Host mappings	
<input type="checkbox"/>	ai_demo_vol1		✓ Online	50.00 GiB	mdg0_child0	No	⋮
<input type="checkbox"/>	ai_demo_vol2		✓ Online	50.00 GiB	mdg0_child0	No	⋮
<input type="checkbox"/>	ai_demo_vol3		✓ Online	50.00 GiB	mdg0_child0	No	⋮
<input type="checkbox"/>	ai_demo_vol4		✓ Online	50.00 GiB	mdg0_child0	No	⋮


Showing 4 volumes



 FlashSystem.ai agent 15:58
Hi! How can I help you today?

You 15:58

Help me setup safeguarded snapshots to protect against cyber attack

 FlashSystem.ai agent 15:58

Sure thing! Safeguarded snapshots are created with a special snapshot policy that marks the snapshots as “protected,” so they can’t be deleted or altered—even if someone gains unauthorized access.

To set this up I’ll need to know which resources you want to protect:

- 1. Do you already have a volume group (or individual volumes) that you’d like to apply safeguarded snapshots to?**
If you do, please give me the name (or let me list the existing groups/volumes for you).
- 2. Do you already have a snapshot policy you want to use, or should I create a new safeguarded-snapshot policy for you?**

Once I have that information I can:

- Create (or update) a snapshot policy with the “safeguarded” option enabled.
- Attach the policy to the chosen volume group or volumes so that protected snapshots are taken automatically (according to the schedule you prefer).

Just let me know the target volume group/volumes and whether you need a new policy, and I’ll take care of the rest.

- Partition
- fsai_demo**
- Volume groups
- Volumes
- Volume mappings
- Hosts
- Host clusters
- Replication policies
- Snapshot policies
- IP quorum
- Partnerships
- ←| Exit storage partition

FlashSystem.ai

FlashSystem.ai agent 12:20
Hi! How can I help you today?

You 12:20

Show me the snapshot policies that exist

FlashSystem.ai agent 12:20 | Show reasoning >

Here are the snapshot policies currently defined on the FlashSystem:

Filter table Download

Policy Name	Schedule Type	Volume Groups Using It	Retention (days)
predefinedsspolicy0	–	0	–
predefinedsspolicy1	–	0	–
predefinedsspolicy2	–	0	–
predefinedsspolicy3	–	0	–
predefinedsspolicy4	–	0	–

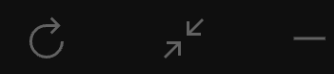
None of these policies have a schedule or retention period set, and they aren't attached to any volume groups at the moment. Let me know if you'd like to create a new policy, modify an existing one, or attach any of these to a volume group.



Type something... ➤

- Partition
- fsai_demo**
- Volume groups
- Volumes
- Volume mappings
- Hosts
- Host clusters
- Replication policies
- Snapshot policies
- IP quorum
- Partnerships
- ←| Exit storage partition

FlashSystem.ai



You 12:23

Create a new volume group called vg_ai_demo in the storage partition fsai_demo. Assign the snapshot policy predefinedsspolicy0 and make it safeguarded

FlashSystem.ai agent 12:23



Approval request

Create volume group 'vg_ai_demo' in partition 'fsai_demo' with snapshot policy 'predefinedsspolicy0' (safeguarded)

Latency 0 ms Read 0 ms Always allow

Reject

Allow once

- Partition
- fsai_demo**
- Volume groups
- Volumes
- Volume mappings
- Hosts
- Host clusters
- Replication policies
- Snapshot policies
- IP quorum
- Partnerships
- ←| Exit storage partition

FlashSystem.ai



You 12:23

Create a new volume group called `vg_ai_demo` in the storage partition `fsai_demo`. Assign the snapshot policy `predefinedsspolicy0` and make it safeguarded

FlashSystem.ai agent 12:24 | Show reasoning >

The volume group **vg_ai_demo** has been created in the **fsai_demo** partition, with the snapshot policy **predefinedsspolicy0** applied and safeguarded snapshots enabled.

Let me know if you'd like to add volumes to this group, modify any settings, or perform any other actions.



Type something...

- Partition
- fsai_demo
- Volume groups**
- Volumes
- Volume mappings
- Hosts
- Host clusters
- Replication policies
- Snapshot policies
- IP quorum
- Partnerships
- ←| Exit storage partition

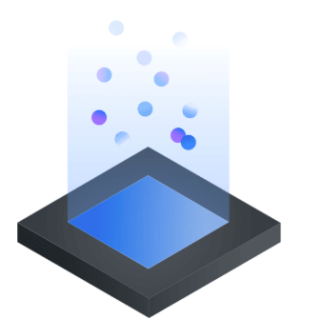
Volume groups / vg_ai_demo

vg_ai_demo

200.00 GiB Total Group Capacity

- Replication Policy
- Safeguarded Snapshot Policy**

- Volumes (4)
- Policies (1)**
- Snapshots (0)
- Cloud Snapshots



Disaster recovery is not configured for this volume group.

Configure disaster recovery replication for the partition before adding disaster recovery for the volume group.

[Go to partition >](#)

[Learn more about configuring replication](#)

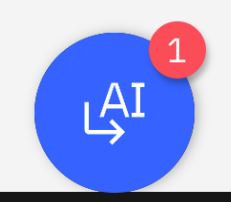
Safeguarded Snapshot Policy

Name	Target
predefinedsspolicy0	Local

Local schedule
Every 6 hours, retained for 7 days

Next at: 26/2/2026 18:00

[Learn more about using External Safeguarded Backup Policy](#)



- Partition
- fsai_demo
- Volume groups**
- Volumes
- Volume mappings
- Hosts
- Host clusters
- Replication policies
- Snapshot policies
- IP quorum
- Partnerships
- ←| Exit storage partition

Volume groups / vg_ai_demo

vg_ai_demo

Replication Policy
Safeguarded Snapshot Policy

Volumes (4) | Policies (1) | Snapshots (0) | Cloud Snapshots

Search

<input type="checkbox"/>	Name	↑	State	Provisioned capacity	Pool	Host mappings
<input type="checkbox"/>	ai_demo_vol1		✔ Online	50.00 GiB	mdg0_child0	No
<input type="checkbox"/>	ai_demo_vol2		✔ Online	50.00 GiB	mdg0_child0	No
<input type="checkbox"/>	ai_demo_vol3		✔ Online	50.00 GiB	mdg0_child0	No
<input type="checkbox"/>	ai_demo_vol4		✔ Online	50.00 GiB	mdg0_child0	No

Showing 4 volumes

FlashSystem.ai

You 12:32

Map all the volumes to demo_host

FlashSystem.ai agent 12:32 | Hide reasoning

- > ibm_flashsystem_list_hosts completed

- Partition
- fsai_demo
- Volume groups**
- Volumes
- Volume mappings
- Hosts
- Host clusters
- Replication policies
- Snapshot policies
- IP quorum
- Partnerships
- ←| Exit storage partition

Volume groups / vg_ai_demo

vg_ai_demo

- Replication Policy
- Safeguarded Snapshot Policy

- Volumes (4)**
- Policies (1)
- Snapshots (0)
- Cloud Snapshots

Search

<input type="checkbox"/>	Name	↑	State	Provisioned capacity	Pool	Host mappings
<input type="checkbox"/>	ai_demo_vol1		✓ Online	50.00 GiB	mdg0_child0	No
<input type="checkbox"/>	ai_demo_vol2		✓ Online	50.00 GiB	mdg0_child0	No
<input type="checkbox"/>	ai_demo_vol3		✓ Online	50.00 GiB	mdg0_child0	No
<input type="checkbox"/>	ai_demo_vol4		✓ Online	50.00 GiB	mdg0_child0	No

Showing 4 volumes

FlashSystem.ai

You 12:32

Map all the volumes to demo_host

FlashSystem.ai agent 12:32 | Hide reasoning

> ibm_flashsystem_list_hosts completed

Approval request

Create volume host mapping 'demo_host'

Allow once

Always allow

Reject

- Partition
- fsai_demo
- Volume groups**
- Volumes
- Volume mappings
- Hosts
- Host clusters
- Replication policies
- Snapshot policies
- IP quorum
- Partnerships
- ←| Exit storage partition

Volume groups / vg_ai_demo

vg_ai_demo

- Replication Policy
- Safeguarded Snapshot Policy

- Volumes (4)**
- Policies (1)
- Snapshots (0)
- Cloud Snapshots

Search

<input type="checkbox"/>	Name	↑	State	Provisioned capacity	Pool	Host mappings
<input type="checkbox"/>	ai_demo_vol1		✓ Online	50.00 GiB	mdg0_child0	No
<input type="checkbox"/>	ai_demo_vol2		✓ Online	50.00 GiB	mdg0_child0	No
<input type="checkbox"/>	ai_demo_vol3		✓ Online	50.00 GiB	mdg0_child0	No
<input type="checkbox"/>	ai_demo_vol4		✓ Online	50.00 GiB	mdg0_child0	No

Showing 4 volumes

FlashSystem.ai

You 12:38

Map the volumes to demo_host

FlashSystem.ai agent 12:38 | Hide reasoning

> ibm_flashsystem_list_volumes completed

...

- Partition
- fsai_demo
- Volume groups**
- Volumes
- Volume mappings
- Hosts
- Host clusters
- Replication policies
- Snapshot policies
- IP quorum
- Partnerships
- ←| Exit storage partition

Volume groups / vg_ai_demo

vg_ai_demo

- Replication Policy
- Safeguarded Snapshot Policy

- Volumes (4)**
- Policies (1)
- Snapshots (0)
- Cloud Snapshots

Search

<input type="checkbox"/>	Name	↑	State	Provisioned capacity	Pool	Host mappings
<input type="checkbox"/>	ai_demo_vol1		✔ Online	50.00 GiB	mdg0_child0	Yes
<input type="checkbox"/>	ai_demo_vol2		✔ Online	50.00 GiB	mdg0_child0	Yes
<input type="checkbox"/>	ai_demo_vol3		✔ Online	50.00 GiB	mdg0_child0	Yes
<input type="checkbox"/>	ai_demo_vol4		✔ Online	50.00 GiB	mdg0_child0	Yes

Showing 4 volumes

FlashSystem.ai

You 12:38

Map the volumes to demo_host

FlashSystem.ai agent 12:39 | Show reasoning >

All four volumes in **vg_ai_demo** have been successfully mapped to **demo_host**. The host now has access to ai_demo_vol1, ai_demo_vol2, ai_demo_vol3, and ai_demo_vol4. Let me know if you'd like to view the mappings, bring the host online, or perform any other actions.

⌵

Type something...

- Partition
- fsai_demo
- Volume groups**
- Volumes
- Volume mappings
- Hosts
- Host clusters
- Replication policies
- Snapshot policies
- IP quorum
- Partnerships
- ←| Exit storage partition

Volume groups / vg_ai_demo

vg_ai_demo

Replication Policy
Safeguarded Snapshot Policy

Volumes (4) | Policies (1) | Snapshots (0) | Cloud Snapshots

Search

<input type="checkbox"/>	Name	↑	State	Provisioned capacity	Pool	Host mappings
<input type="checkbox"/>	ai_demo_vol1		✓ Online	50.00 GiB	mdg0_child0	Yes
<input type="checkbox"/>	ai_demo_vol2		✓ Online	50.00 GiB	mdg0_child0	Yes
<input type="checkbox"/>	ai_demo_vol3		✓ Online	50.00 GiB	mdg0_child0	Yes
<input type="checkbox"/>	ai_demo_vol4		✓ Online	50.00 GiB	mdg0_child0	Yes

Showing 4 volumes

FlashSystem.ai

You 12:40

Snapshot the volume group

FlashSystem.ai agent 12:40

...

- Partition
- fsai_demo
- Volume groups**
- Volumes
- Volume mappings
- Hosts
- Host clusters
- Replication policies
- Snapshot policies
- IP quorum
- Partnerships
- Exit storage partition

Volume groups / vg_ai_demo

vg_ai_demo

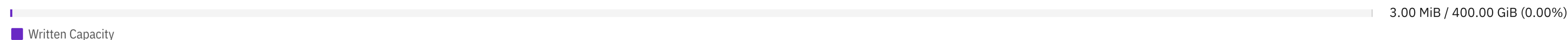
200.00 GiB Total Group Capacity

Replication Policy
Safeguarded Snapshot Policy

[Volumes \(4\)](#)
[Policies \(1\)](#)
[Snapshots \(1\)](#)
[Cloud Snapshots](#)

Capacity for Snapshots

[Hide details](#) ^



Search

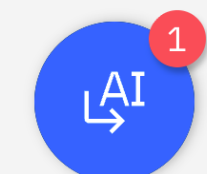


Take Snapshot +

Snapshot name	State	Safeguarded	Time Created	Last restore time	Expiration Time	HA status	Threat detection event	Written Capacity
snapshot-A2863DE8-6067-52EE-9A7D-69046D29FA76	Active	No	26/2/2026 12:41	-	-	Highly available	No	0 bytes

Items per page: 25 1-1 of 1 item

1 of 1 page



Themen



NIKLAS WEBER

AXIANS
KEY ACCOUNT MANAGER



niklas.weber@axians.at

Automatisierung von
Routinetätigkeiten
mit Agentischer KI

Autonome Storage-
Infrastruktur

Software Entwicklung
mit Agentischer KI
Unterstützung



REINHOLD ENGELBRECHT
IBM TECHNOLOGY
TECHNICAL SPECIALIST

r_engelbrecht@at.ibm.com



KARL HOHENAUER
IBM TECHNOLOGY
STORAGE PRESALES EUROPE

karl.hohenauer@at.ibm.com



REINHOLD ENGELBRECHT
IBM TECHNOLOGY
TECHNICAL SPECIALIST

r_engelbrecht@at.ibm.com

Typische Herausforderungen für Softwareentwickler



Code von anderen

- * Undokumentierter Code
- * Chaos & Spaghetti-Code



Technische Schulden

- * Veraltete Strukturen
- * Notlösungen & Hacks



Enge Deadlines

- * Hoher Zeitdruck
- * Knappe Termine



Wartung & Debugging

- * Alte Systeme
- * Fehlersuche Aufwendig



Was wäre, wenn ...

... Sie ohne Mühen alten Code von anderen dokumentieren und auch verstehen können?

... Sie Code-Änderungen in Sekundenschnelle durchführen könnten?

... Sie keine wertvolle Zeit bei lästigen Debug-, Test- und Deploymentschritten verlieren?

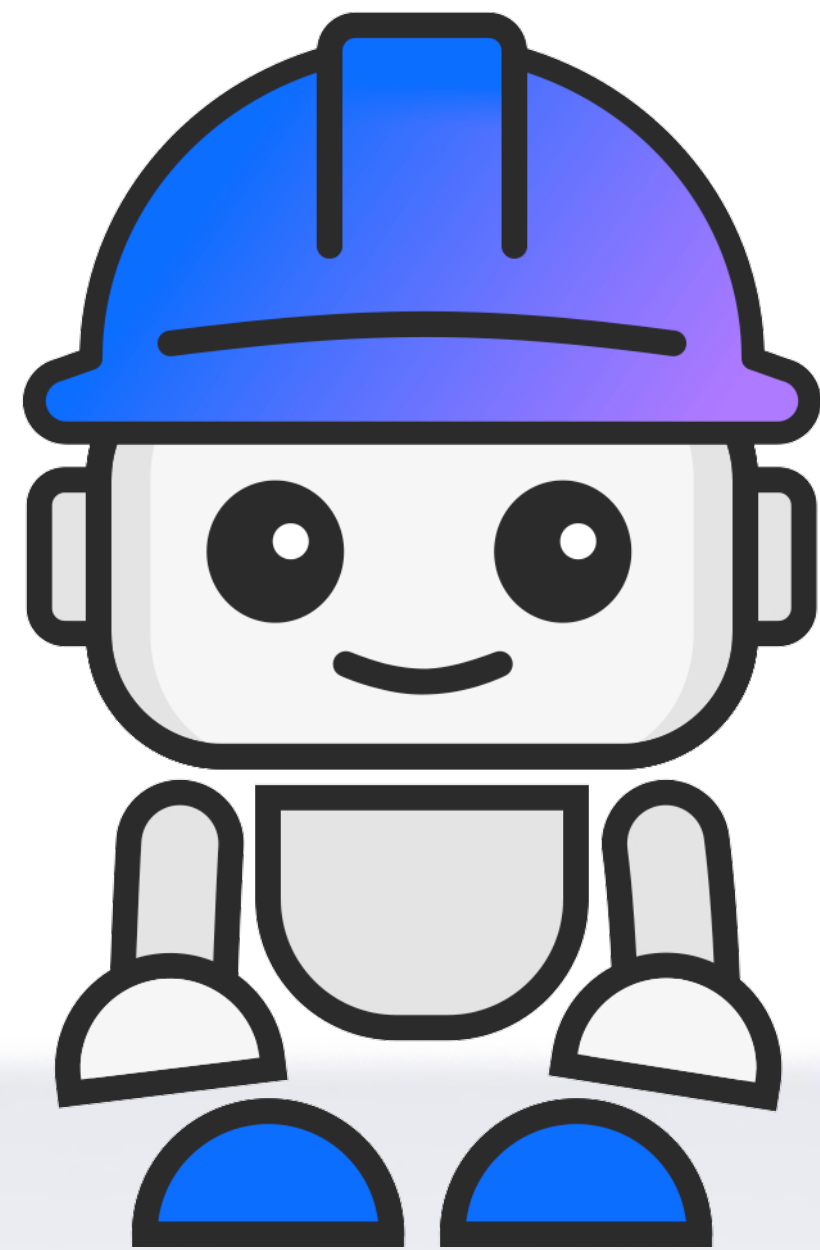
... ein KI Agent die notwendigen Schritte bei einer Softwaremodernisierung plant und für Sie dann auch durchführt?

```
Review Changes

Generate a Python module to read data from DB2 cloud database. Include a test function.
1 """
2 Module for reading data from DB2 cloud database.
3 Provides functions to connect to DB2 and execute queries.
4 """
5
6 import ibm_db
7 import ibm_db_dbi
8 from typing import List, Dict, Any, Optional
9
10
11 class DB2Connection:
12     """
13     A class to manage DB2 cloud database connections and operations.
14     """
15
16     def __init__(self, database: str, hostname: str, port: int,
17                 protocol: str, uid: str, pwd: str) -> None:
18         """
19         Initialize DB2 connection parameters.
20
21         Args:
22             database: Database name
23             hostname: Database hostname
24             port: Database port
25             protocol: Connection protocol (usually TCPIP)
26             uid: User ID
27             pwd: Password
28         """
```

IBM Bob - Überblick

Your AI-powered coding partner



Hi, I'm Bob!

I can help you to

EXPLORER


- CUSTOM_UI_EXAMPLE
 - utils
 - __pycache__
 - devTools
 - __init__.py
 - credentials_manager.py
 - icons.py
 - token_manager.py
 - wxo_config.py
 - wxo
 - .env
 - .env.example
 - .gitignore
 - app.py
 - architecture_diagram.md
 - current_token.txt
 - index.html
 - README.md
 - requirements.txt
 - streamlit_ai_assistant.py

```

architecture_diagram.md | README.md | x
# Watsonx Orchestrate Agent REST API Examples
1 # Watsonx Orchestrate Agent REST API Examples
2
3 This application provides examples for invoking Watsonx
  Orchestrate agents via REST API. A simple Streamlit frontend
  is used for testing invocation.
4
5 **Author:** Elena Lowery
6 **AI Assistant:** Bob
7
8 ---
9
10 ## Overview
11
12 This project demonstrates how to integrate with Watsonx
  Orchestrate (WxO) agents through REST API calls. It includes
  two sample applications:
13
14 1. **Healthcare Claims Processing Application** (`app.py`) -
  A full-featured claims processing interface with AI assistance
15 2. **Simple AI Assistant** (`streamlit_ai_assistant.py`) - A
  basic chat interface for general AI interactions
16
17 Both applications use a unified adapter pattern to handle
  authentication, token management, and API communication with
  WxO agents.
18
19 ---
20
21 ## Important Note
22
23 ⚠️ **Always check the [ADK documentation](https://www.ibm.com/

```

IBM BOB



Hi, I'm IBM Bob

Ask me questions or let me code for you.

Recent Tasks

- Please prepare this project for checking in to git
2 weeks ago · 0.26
- Can you generate icons that I can include in Python code?
2 weeks ago · 0.18
- Modify code in app.py to invoke wxo_agent_adapter. Replace this placeholder: # Get AI response (placeholder). Use ...
3 weeks ago · 0.64

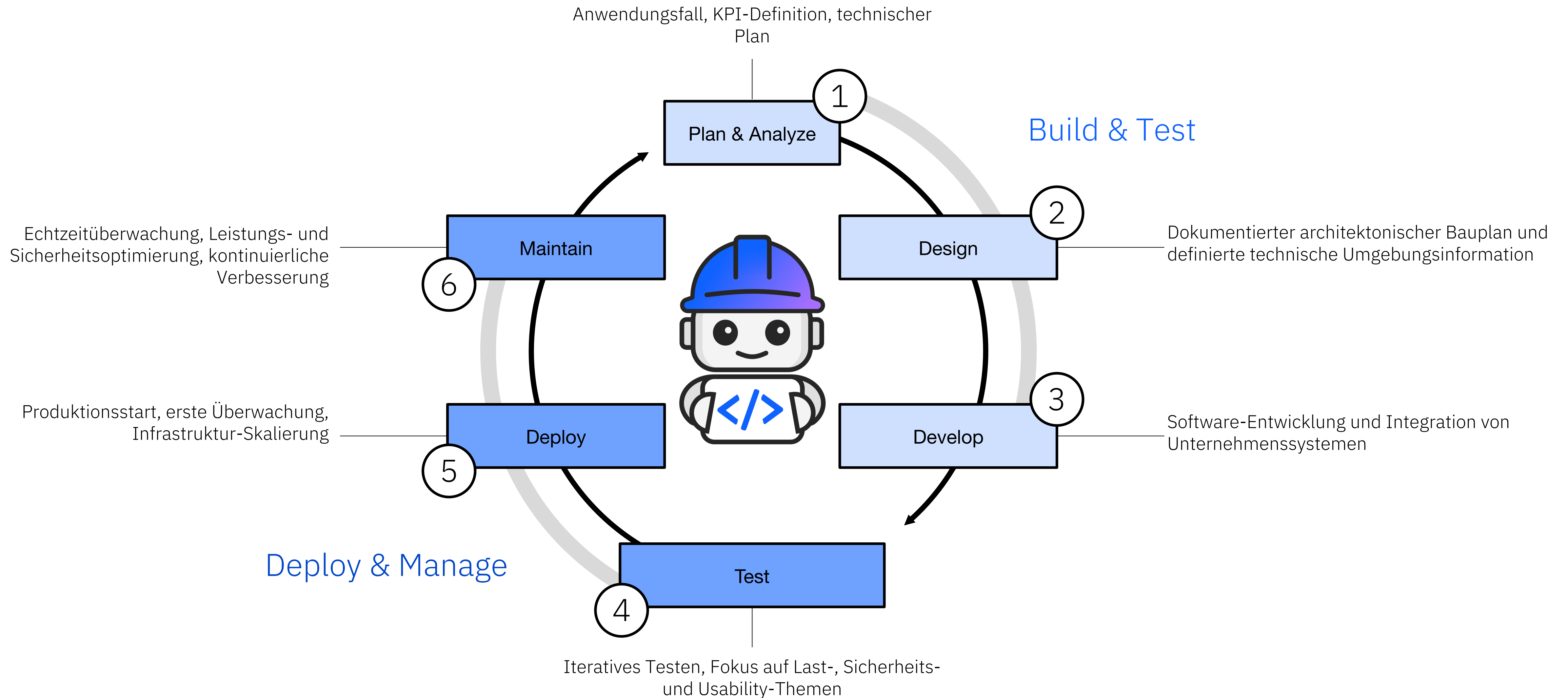
Auto-approval disabled

What would you like me to help with?

Restart Bob-IDE to update!

IBM Bob, der KI-Partner im gesamten SDLC

Die Bereitstellung von KI über das gesamte SDLC erfordert eine andere Architektur. Bob ist dafür gemacht.



Bob ist in Kürze verfügbar

Client Zero: 30K+ IBMers

Early Access Programs

GA SaaS

Roadmap: On-premises



200+ Kunden PoCs

Wertvolles Kundenfeedback sammeln, Anwendungsfallstudien, die klar zeigen, wie Bob reale, wirkungsvolle geschäftliche Herausforderungen angeht.



35+ Kundenerfahrungen und Zahlen [POC Client case studies by use case](#)

200+ IBM Client Zero Fallstudien

➤ [Client zero case studies by use case](#)

2000+ Aktive Externe Entwickler

Die öffentliche Vorschau skalierte Bob, indem sie direkten Self-Service-Nutzerzugriff ermöglichte und gleichzeitig Produktfeedback erfasste.

2065 aktive Nutzer
2k+ Firmen → 2x ab Januar
>7K registriert und weiter wachsend

IBM Consulting Early Access

Teilnahme

- 3,000+ IBM Consulting Mitarbeiter mit >60 % aktiver Teilnahme
- Bis heute wurden über 200+ Fallstudien eingereicht (siehe Ergebnisse unten).

Survey Results

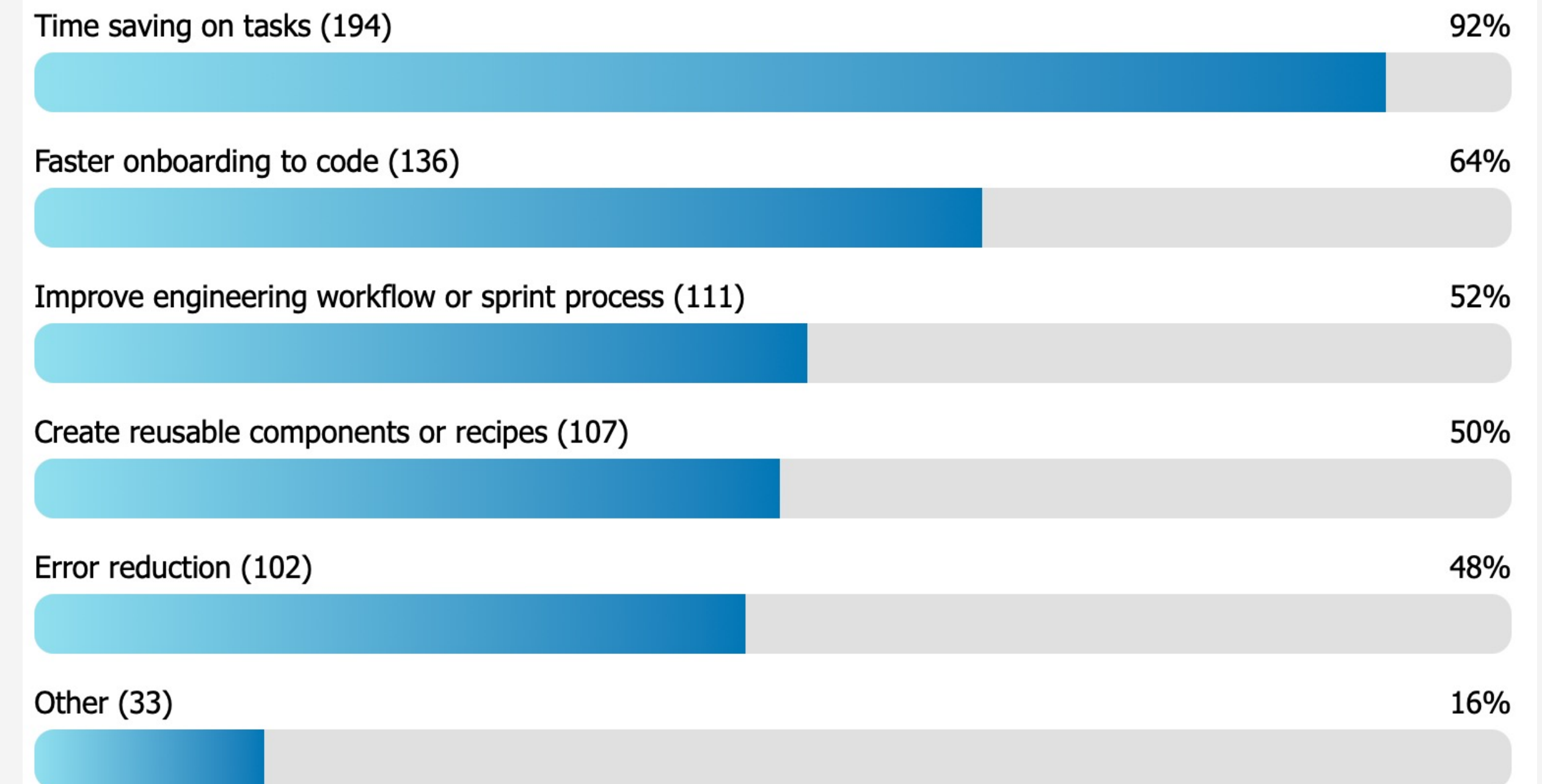
4.5 / 5.0
Average rating

77%
Productivity Gain

Technology & Languages Mentioned



Benefit Analysis



Modes

Modi sind wie “Personas”, also fokussierte Anweisungen für Prompts und Aufgaben

Out-of-the-box-Modi

- *Plan, Code, Ask, Java-Modernisierung, Fortgeschrittene, Orchestrierung*
- *Laden Sie zusätzliche Modi vom Bob Marktplatz herunter*
- *Erstelle deine eigenen Modi*

Warum Modi verwenden:

- *Aufgabenspezialisierung*
- *Sicherheitskontrollen*
- *Fokussierte Interaktionen*
- *Workflow-Optimierung*

Modes

Done

Modes

Modes are specialized personas that tailor my behavior. [Learn about Using Modes](#) or [Customizing Modes](#).

Code + ✎ 🗑️ ⬆️

API Configuration

Select which API configuration to use for this mode

default

Role Definition

Define my expertise and personality for this mode. This description shapes how I present myself and approach tasks.

You are IBM Bob, a highly skilled software engineer with extensive knowledge in many programming languages, frameworks, design patterns, and best practices.

Short description (for humans)

A brief description shown in the mode selector dropdown.

Write and modify code

Available Tools

Tools for built-in modes cannot be modified

Read Files, Edit Files, Run Commands

Chat und Inline-Interaktion

Entwickler können mit Bob interagieren

- *Über Chat (agentisch, hat Zugriff auf Tools)*
- *In-line im Editor (literate coding)*
- *Konfigurierbare, KI-gestützte Codevervollständigung*

General

Chat

</> Editor

Bob findings

Bob version
0.0.13

Bob Docs

Editor

Auto-complete
AI-powered code completion

LLM comment attribution
Control how AI-generated code is attributed. When enabled, code changes are marked with inline comments. When disabled, attribution metadata is stored using git-notes for IBM repositories, and no attribution is added to non-IBM repositories

General editor settings
Link to editor settings for access to additional settings [Open](#)

Review Changes

```
Generate a Python module to read data from DB2 cloud database. Include a test function.
1 """
2 Module for reading data from DB2 cloud database.
3 Provides functions to connect to DB2 and execute queries.
4 """
5
6 import ibm_db
7 import ibm_db_dbi
8 from typing import List, Dict, Any, Optional
9
10
11 class DB2Connection:
12     """
13     A class to manage DB2 cloud database connections and operations.
14     """
15
16     def __init__(self, database: str, hostname: str, port: int,
17                 protocol: str, uid: str, pwd: str) -> None:
18         """
19         Initialize DB2 connection parameters.
20
21         Args:
22             database: Database name
23             hostname: Database hostname
24             port: Database port
25             protocol: Connection protocol (usually TCPIP)
26             uid: User ID
27             pwd: Password
28         """
```

Werkzeuge

Out-of-the-box Werkzeuge

- *Datei lesen*
- *Datei schreiben*
- *Ausführen*
- *Web Browser*

Zusätzliche Werkzeuge können über MCP-Server hinzugefügt werden

What tools do you have access to?

11k / 200k 0.06 X

I have access to the following tools:

File & Code Analysis Tools

- `read_file` - Read contents of up to 5 files at once, with optional line ranges for efficient reading
- `list_files` - List files and directories, with optional recursive listing
- `list_code_definition_names` - Extract code structure (classes, functions, methods) from files or directories
- `search_files` - Perform regex searches across files with context-rich results

Git Tools

- `obtain_git_diff` - View git differences (working directory changes or branch comparisons)
- `generate_description_from_diff` - Generate PR descriptions from git diffs between branches

Browser Automation

- `browser_action` - Control a Puppeteer browser for web interaction (launch, click, type, scroll, screenshot, etc.)

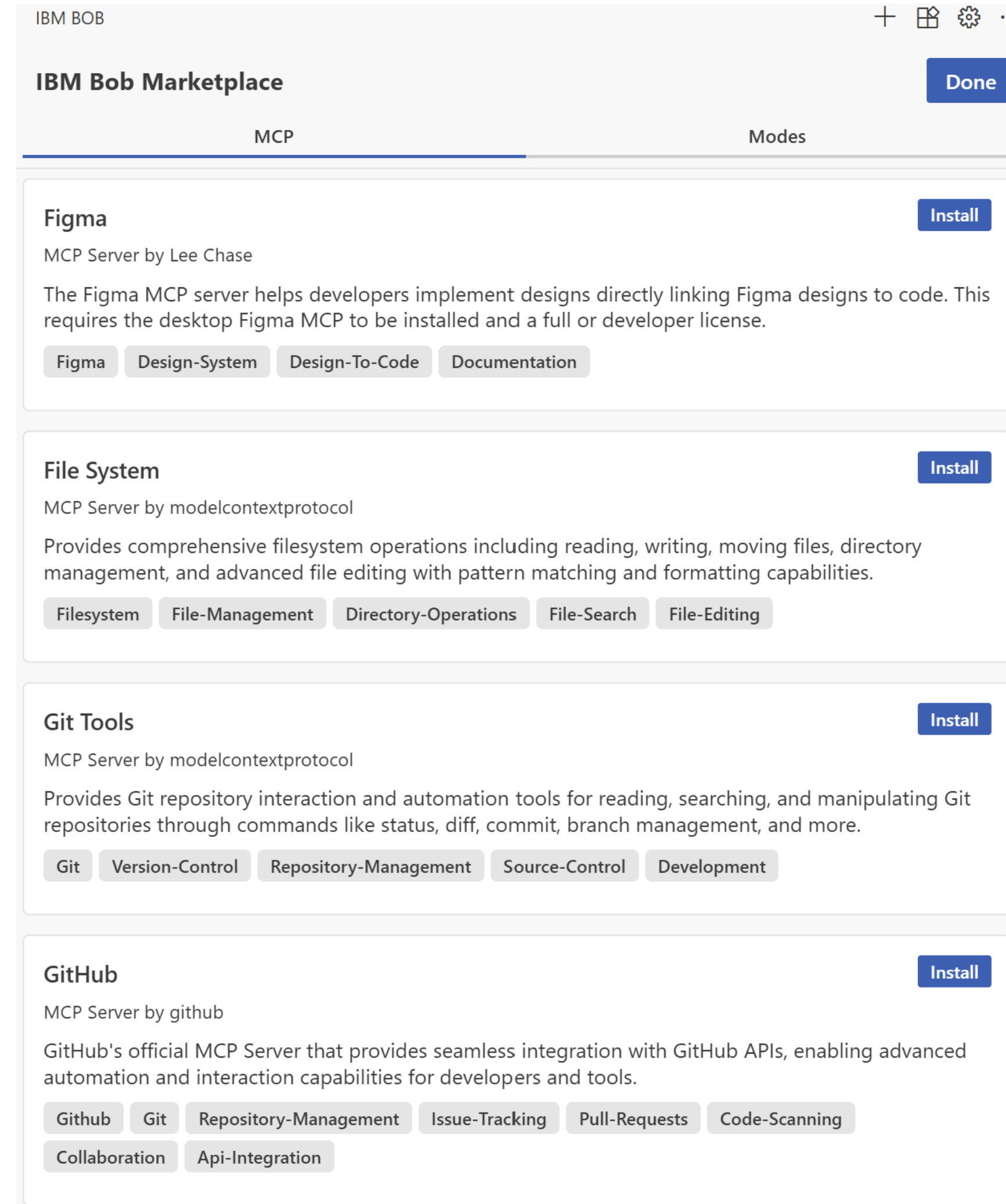
Task Management

- `ask_followup_question` - Ask clarifying questions with suggested answers

MCP Server

Bob IDE unterstützt lokale und entfernte MCP-Server

- *Richte deine eigenen MCP-Serververbindungen ein*
- *Zusätzliche MCP-Server am Bob Marketplace*



Software Security

Integrierter Vulnerability Scan

- *Die Ergebnisse lenken die Aufmerksamkeit auf potenzielle Probleme, ohne dass ein proaktiver Prompt notwendig ist*
- *Angezeigt für Dateien, die im Editor geöffnet sind*

General

Chat

Editor

Bob findings

Bob version
0.0.13

Bob Docs

Bob findings

- Bob tips**
Turn on helpful AI suggestions and tips
- Security vulnerability scan**
Security vulnerability scanning
- Secrets scan**
Detect exposed secrets and credentials
- Ask for code review**
Prompts to review changes recently committed

PROBLEMS 8 OUTPUT DEBUG CONSOLE TERMINAL PORTS IBM BOB FINDINGS

Fuzzy search... Show all Files Sort by File

app_vulnerable.py

Bob Tip: transfer_funds:645

Bob Tip: transfer_funds

Based on analysis of **transfer_funds**, here are some initial suggestions for refactoring:

- Move the requests import to the module level and use a `requests.Session` with a default timeout to avoid repeated imports and improve performance.
- Extract all database interactions into dedicated helper functions (`get_balance`, `deduct_balance`, `record_transaction`, `rollback_balance`) and wrap them in a single transaction context manager to reduce nesting and guarantee atomicity.
- Replace the inline SQL strings with parameterized queries and a single `execute_query` wrapper that raises exceptions on failure, simplifying error handling and improving readability.

Location: `/c:/Bob_demos/Project2_SDLc_tasks/2_security_review/bank1-savings/app_vulnerable.py:645`

Go To Location Investigate and improve code in chat

Direct fix

Bobshell

Bobshell wird verwendet, um Bob-Aufgaben direkt in einem Terminal auszuführen.

Verwendet von Entwicklern, die hauptsächlich in einem Terminal und nicht in einer IDE arbeiten.

Häufig für CI/CD-Integration, Skriptautomatisierung und terminalbasierte Arbeiten verwendet.



```

Welcome to
BOB
SHELL
Version 0.8.1

/new  new session  ctrl+x
/new  new session  ctrl+x
/new  new session  ctrl+x
/new  new session  ctrl+x
/new  new session  ctrl+x

~/Desktop/Time-converter-app

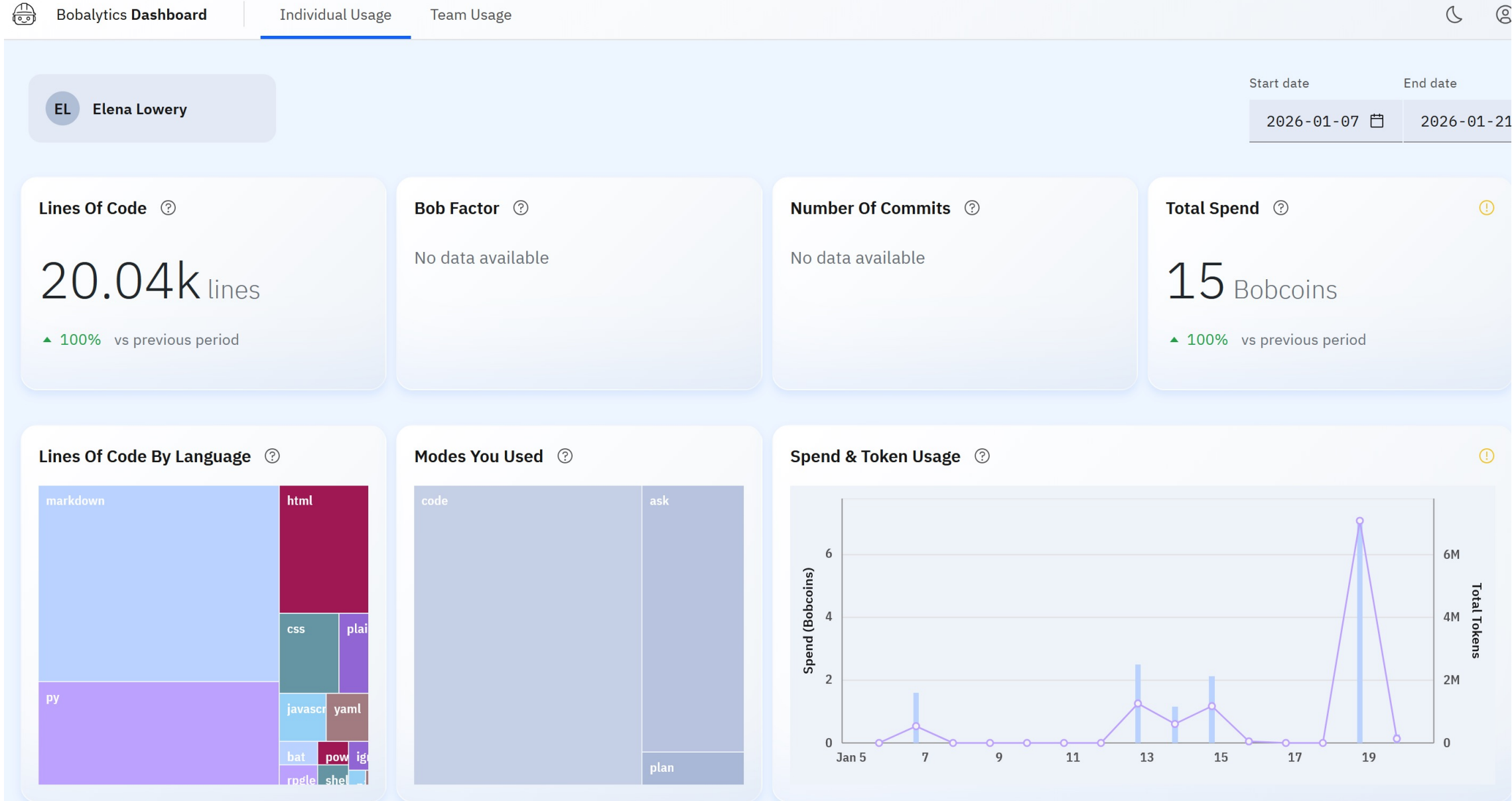
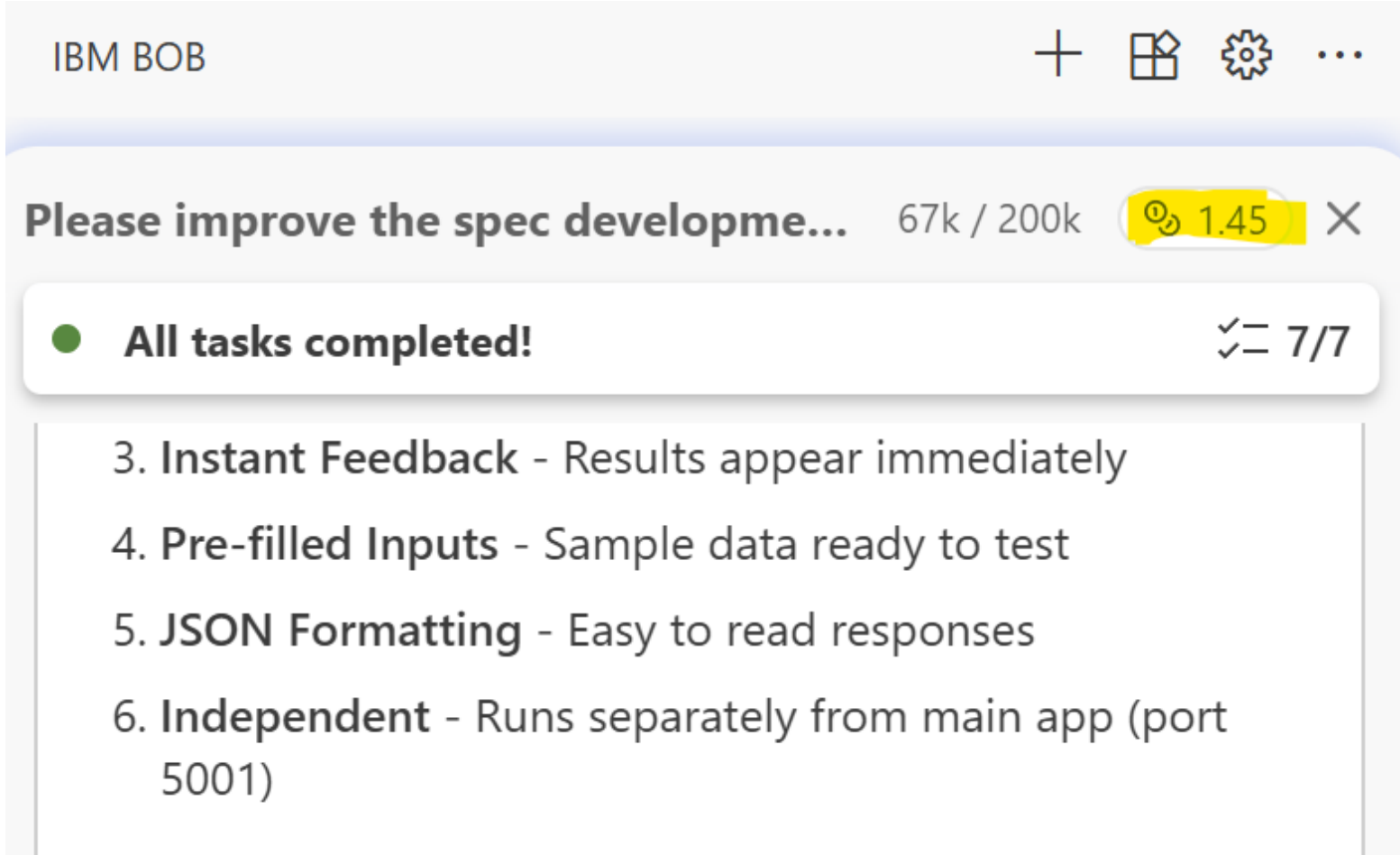
How many employees are there in this dataset @CSV\ datasets\Employee\ data.csv

ReadManyFiles
```

Bobalitics

Nutzer können Kosten/Token-Nutzung pro Prompt in der IDE sehen

Das Bobalitics-Dashboard zeigt die Auslastung pro Nutzer und pro Team an



Ask Bob

Get Bob!

[Join](#) →



Follow Bob on YouTube

[IBM Bob](#) →

Video Playlists

[Your agentic coding partner](#) →

[Java Modernization](#) →

[Deploy with confidence](#) →

[From observability to action](#) →

[Application Modernization on IBM i](#) →

