Turning Ideas into Enterprise Apps: Building AI Agents and Applications on SAP BTP

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March, 2026

Public

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Agenda

- SAP Build
- Joule Studio
- Joule for Developers
  - Demo
- Agentic development with SAP MCPs
  - Demo
- Outlook Vibe coding
  - Demo

You need both a strong standard and your unique edge

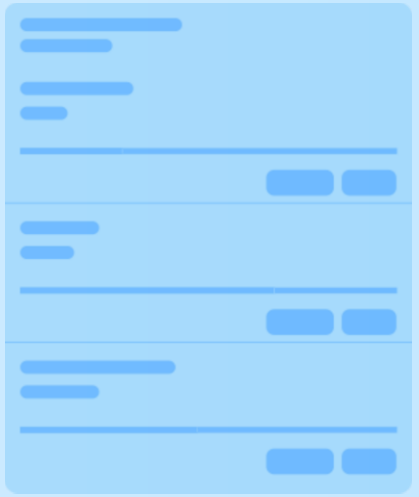
SAP Build solutions help you bring in the last **20%—your unique edge**.

Your differentiation
Unique processes, applications, secret recipes

SAP’s industry-standard processes get you **80%** of the way.

SAP standard
Best practices, proven processes, compliance, stability, and architecture

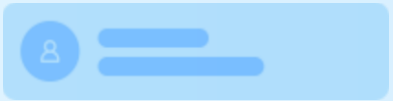
SAP Build enables clean, governed extensions to add the edge that makes your business win—without compromising the stability of the core



SAP Build

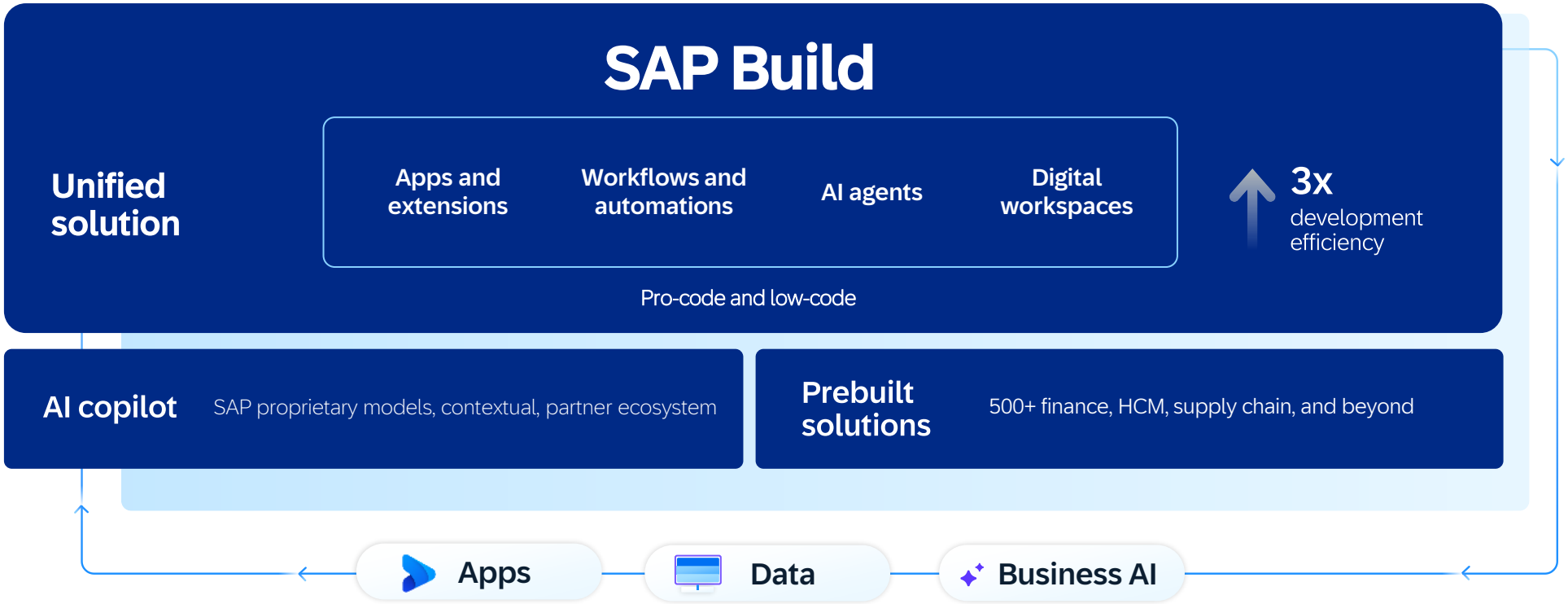
A turnkey, unified environment for AI-driven application development and process automation

Low-code | Pro-code | Generative AI | AI agents



A simpler, fast, and trusted way to personalize SAP

Build where your business lives, in the context of your applications, data, and AI



Start quickly

with tools for every role ready from day one

Faster delivery

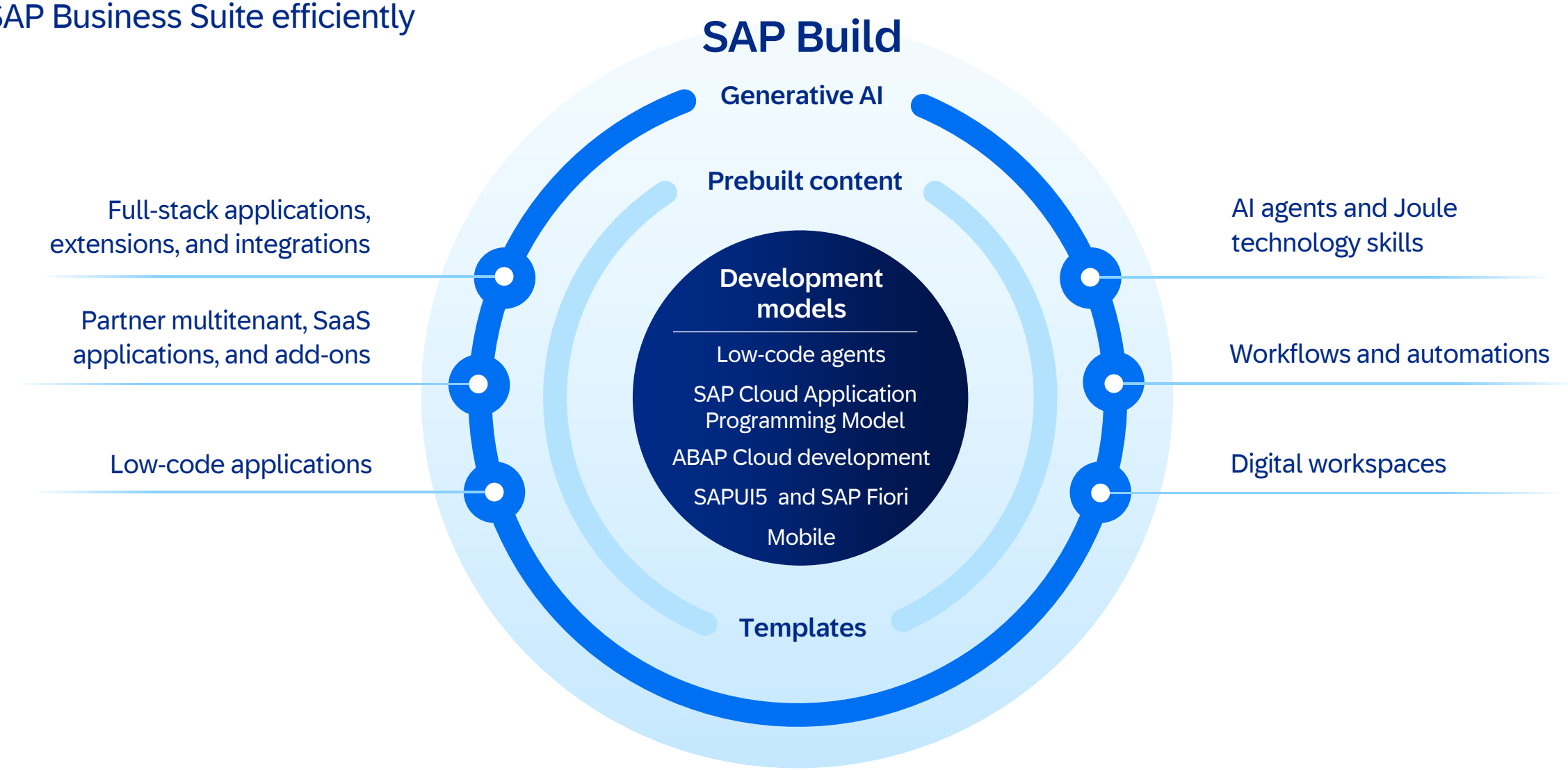
with AI and prebuilt solutions

Fully integrated

with SAP Business Suite and clean core by design

Delivering a best-in-class developer experience

Build AI-enabled solutions for extending SAP Business Suite efficiently



Get AI assistance for extending SAP software

What AI is right for me?

AI Capabilities in SAP Build

Joule

AI copilot chatbot embedded across your business applications

Joule For Developers

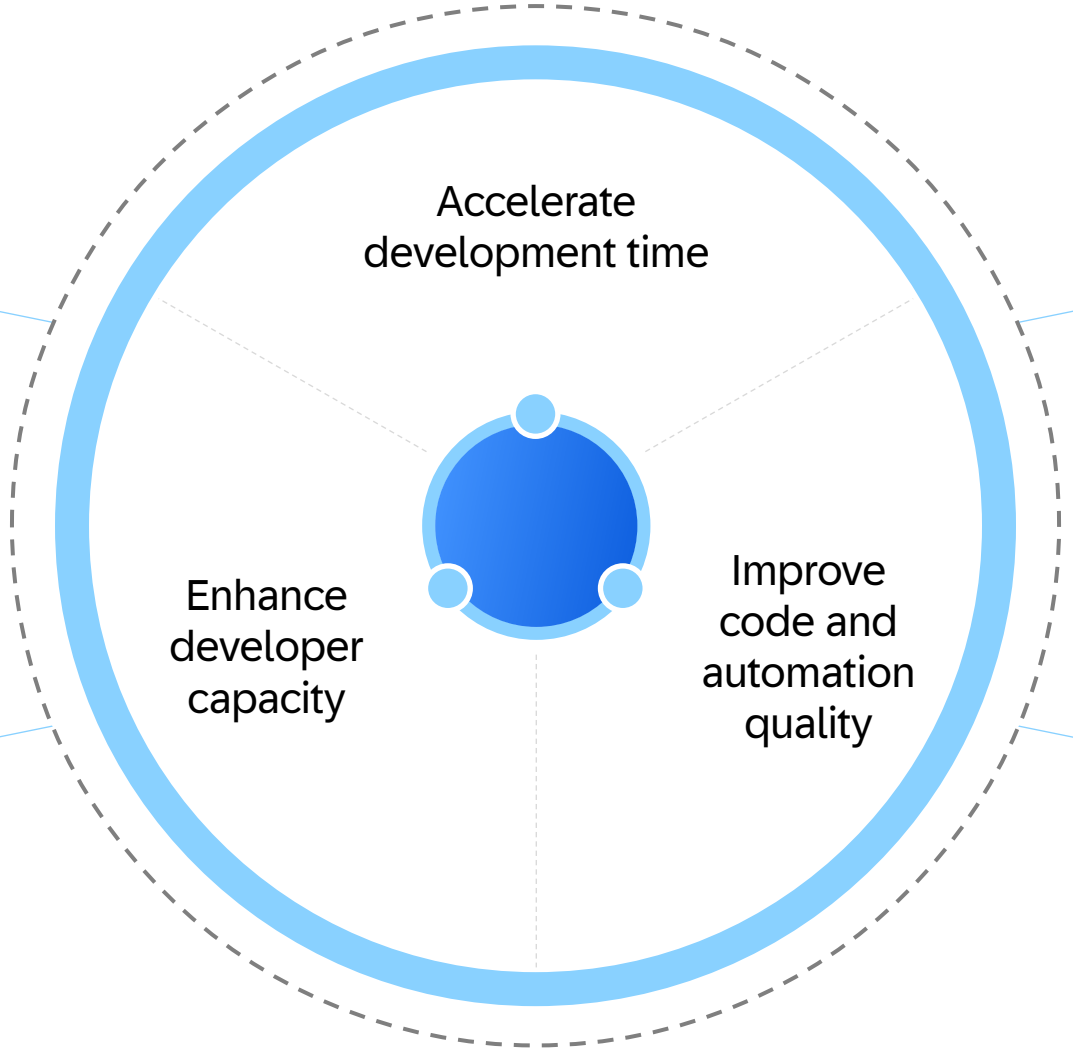
AI assistance for application development and automation projects in SAP Build.

Joule Studio

Extend Joule with custom skills and create AI Agents

Joule for Developers

The promise of generic AI Assistants



GenAI development tools scattered across platforms

Irrelevant outputs to SAP workloads

Context switching between environments

Siloed GenAI tools lack integration

Get AI assistance for extending SAP software with SAP Build

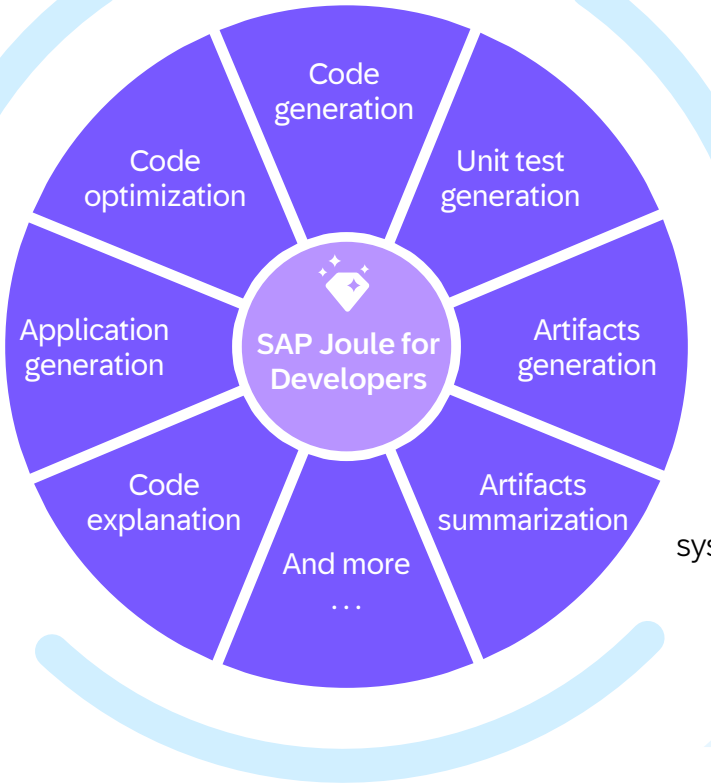
More information on generative AI-powered app dev and automation

Comprehensive AI capabilities
for new application development, existing code optimization, and automation

Full-stack application development

ABAP environment

Specialized outcomes
enabled by SAP-centric large language models



Integrated AI tools
connected to SAP systems and integrated in development environment

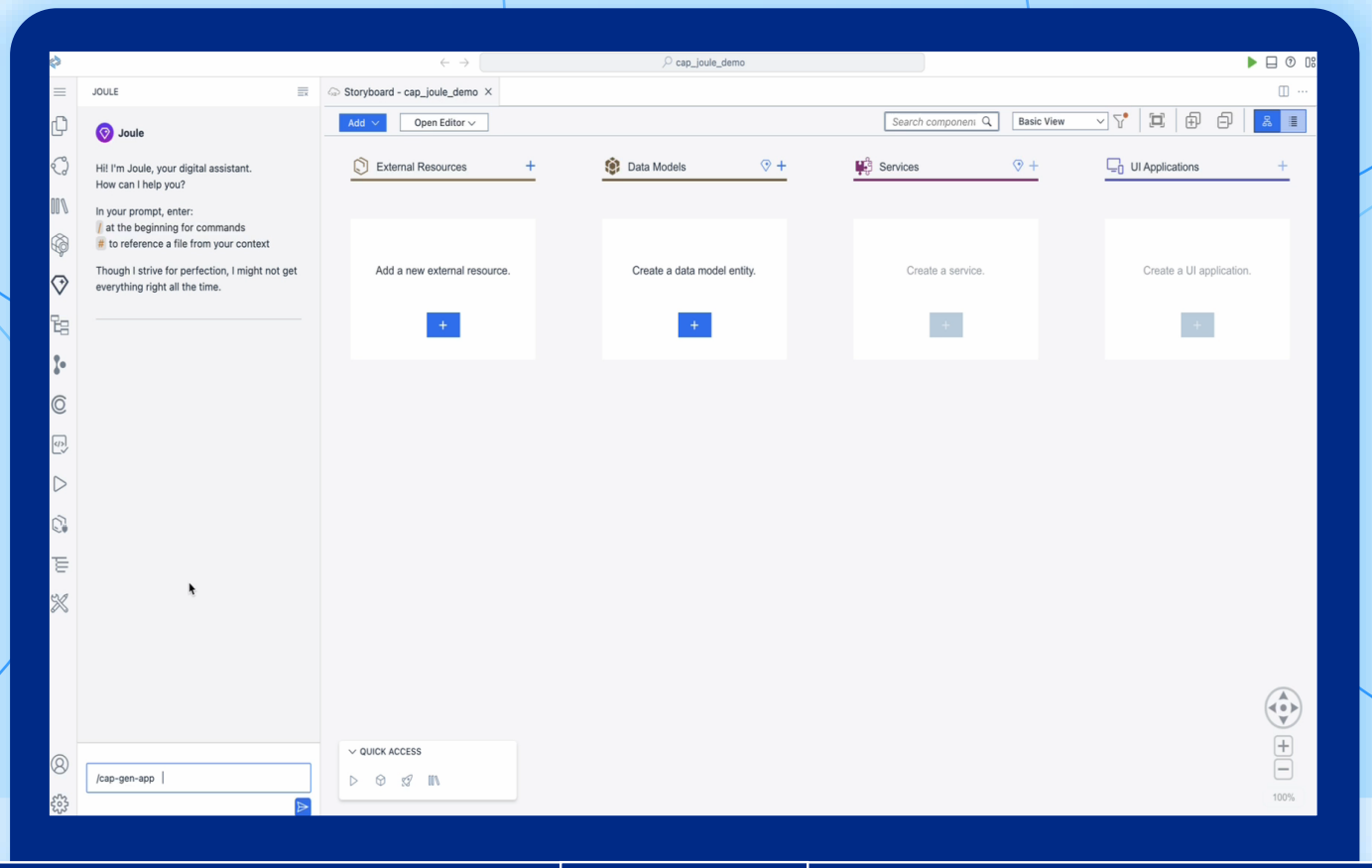
Low-code application development

Process automation

Turbocharge your full-stack application development

Generate **full-stack application, application UI and unit tests** from scratch

Automate **sample-data generation**



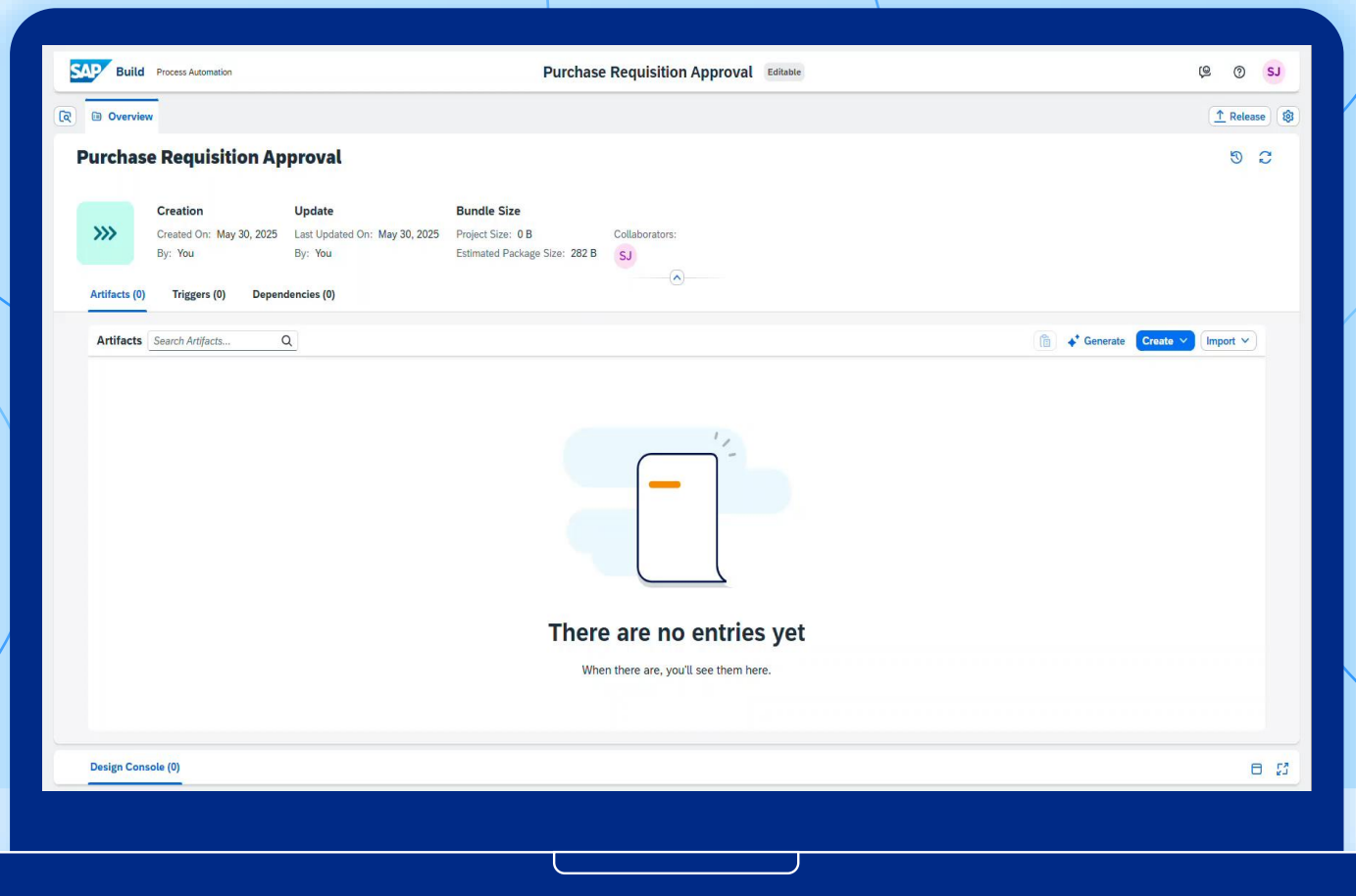
Support **freestyle SAPUI5, SAP Fiori elements** and **native application development**

Generate ABAP **code, code explanations, refactoring and unit tests, and service definitions**

Kick-start your process automation

Generate **processes, explanations, data types, and artifacts with natural language**

Generate **business rules, forms, and decisions** and perform **gap analysis**



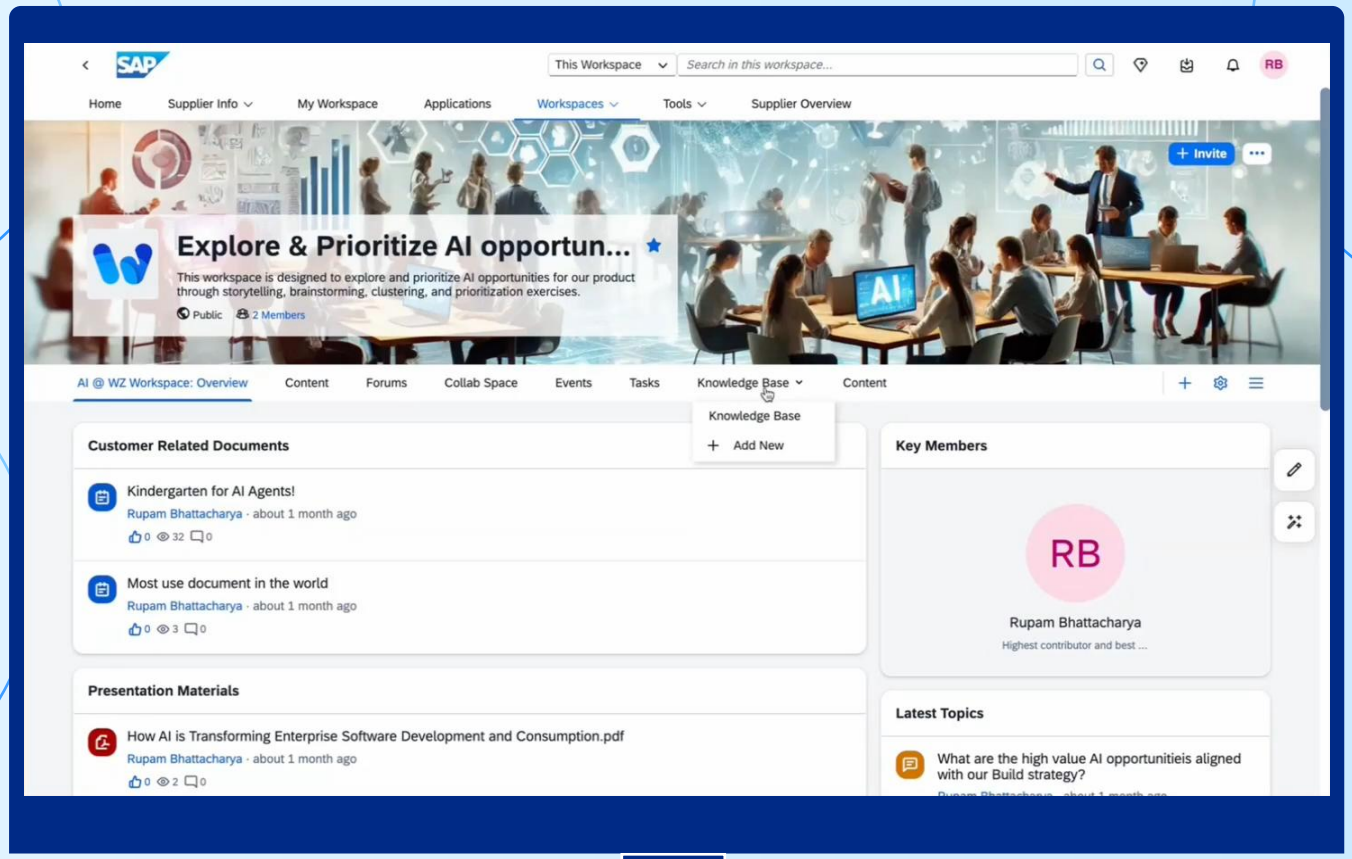
Take advantage of generative AI-enabled **intelligent document processing**

Make **automations resilient** to unplanned situations with **AI agents**

Infuse your digital workspaces with AI

Seamless Joule chat access within central entry points

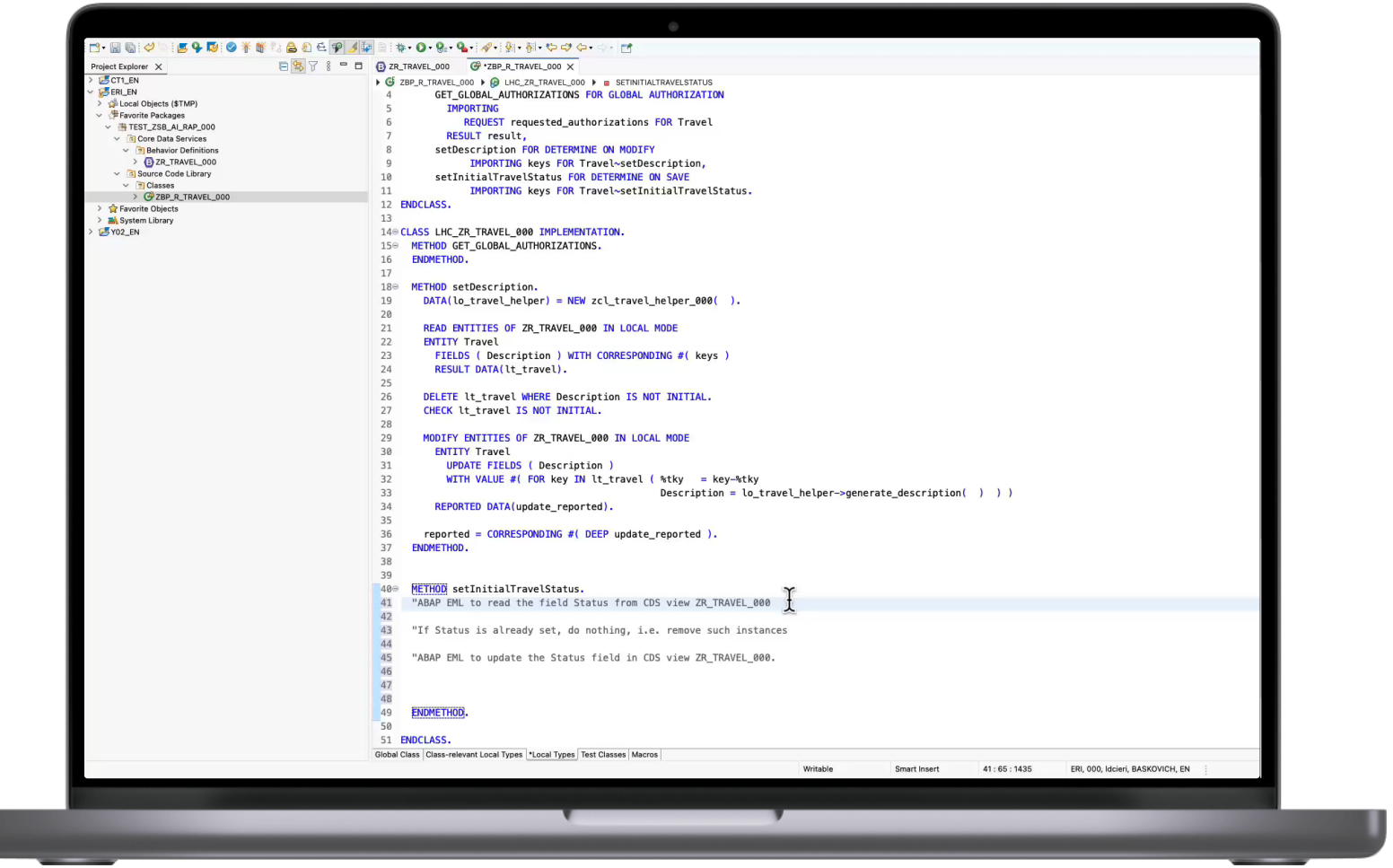
Joule responses grounded in digital workspace content



Generative AI-based **content creation** assistance

Task completion with Joule Skills

Enable faster and smarter development with AI-assisted code refactoring



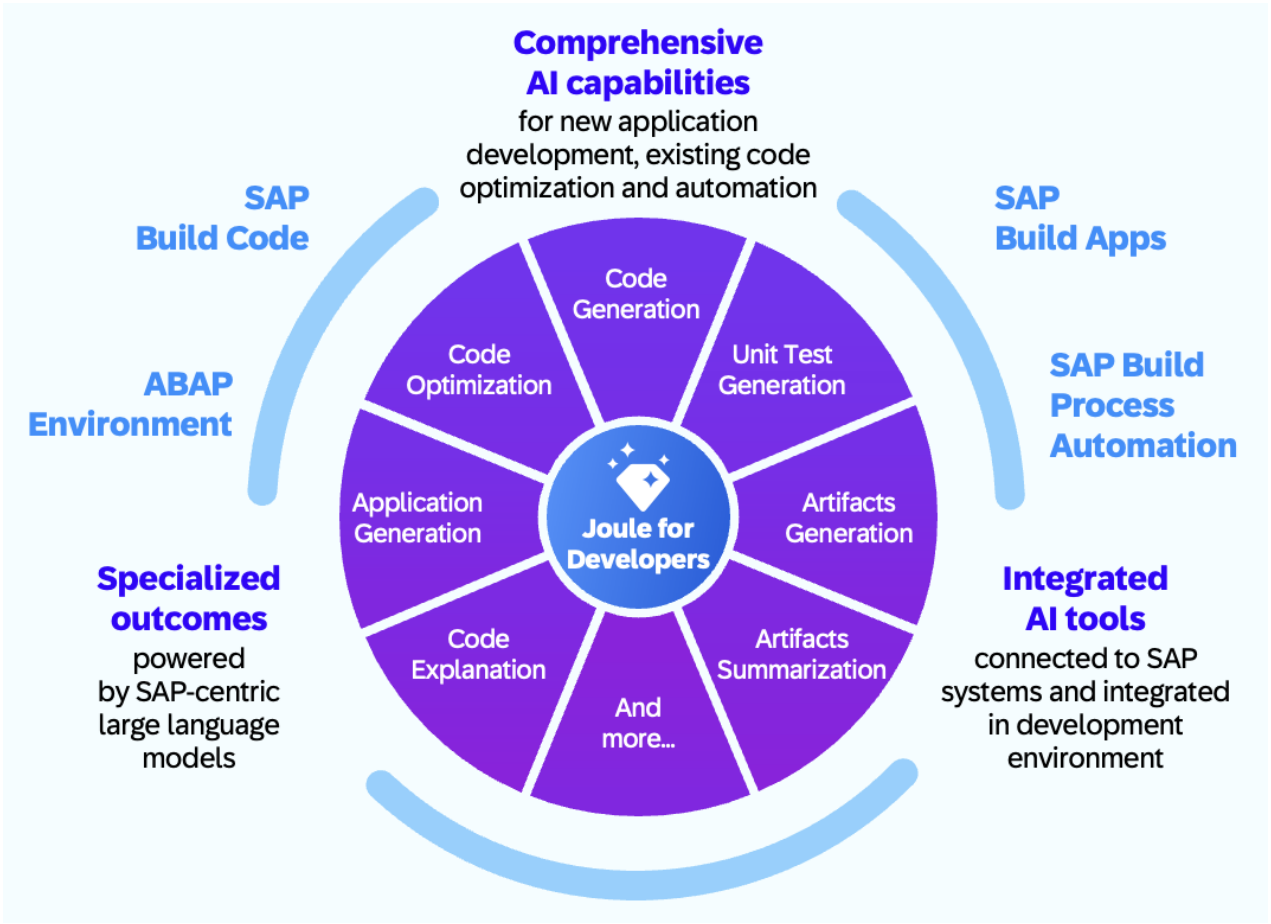
- Inline code completion in Java/JavaScript and ABAP
- Code refactoring available in ABAP environment and SAP Build Code
- Code explanation, code search, and comments generation

SAP Joule for Developers

Unified offering of AI capabilities across SAP Build solutions

Take advantage of the free offer

SAP Joule for Developers can be subscribed for no charge until end of **Q3 2026** for both SAP Build and ABAP Cloud



How to activate SAP Joule for Developers

SAP Build

1. Go to the **SAP Build homepage** and select **Control Tower** in navigation panel
2. Navigate to the **Generative AI** section
3. Toggle "**Enable Generative AI**" to turn it on
4. Read and accept the SAP AI terms

ABAP

1. Sign up for the **no-cost service (for customers: ID 8019124/ for partners: ID 8019541)** in SAP BTP
2. Read and accept the SAP AI terms - AI capabilities will be activated within **48 hours**.
3. Ensure that the assigned users have authorizations to start using AI capabilities.

Need more help? Check out this step-by-step blog.

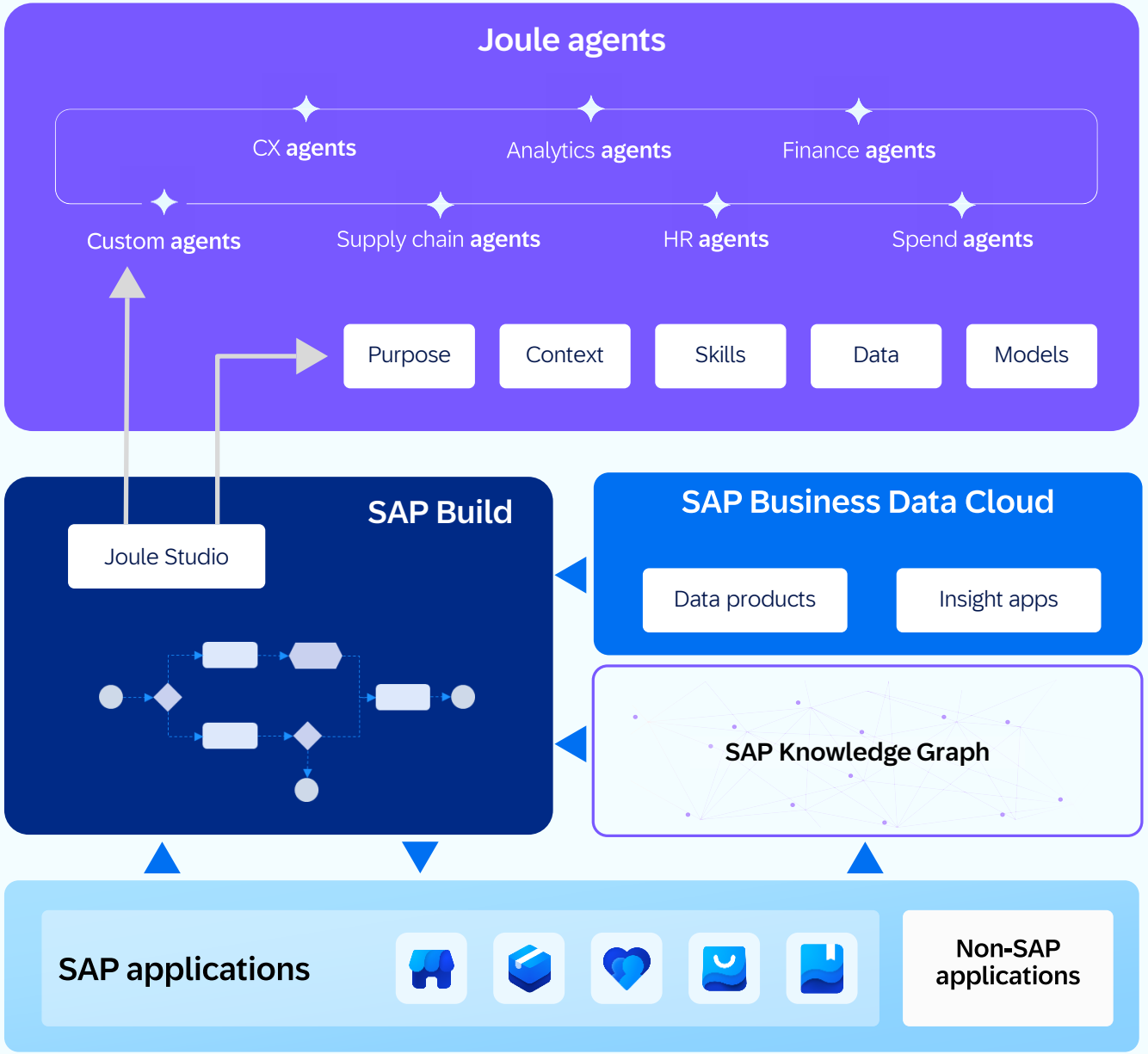
Demo – SAP Build Code

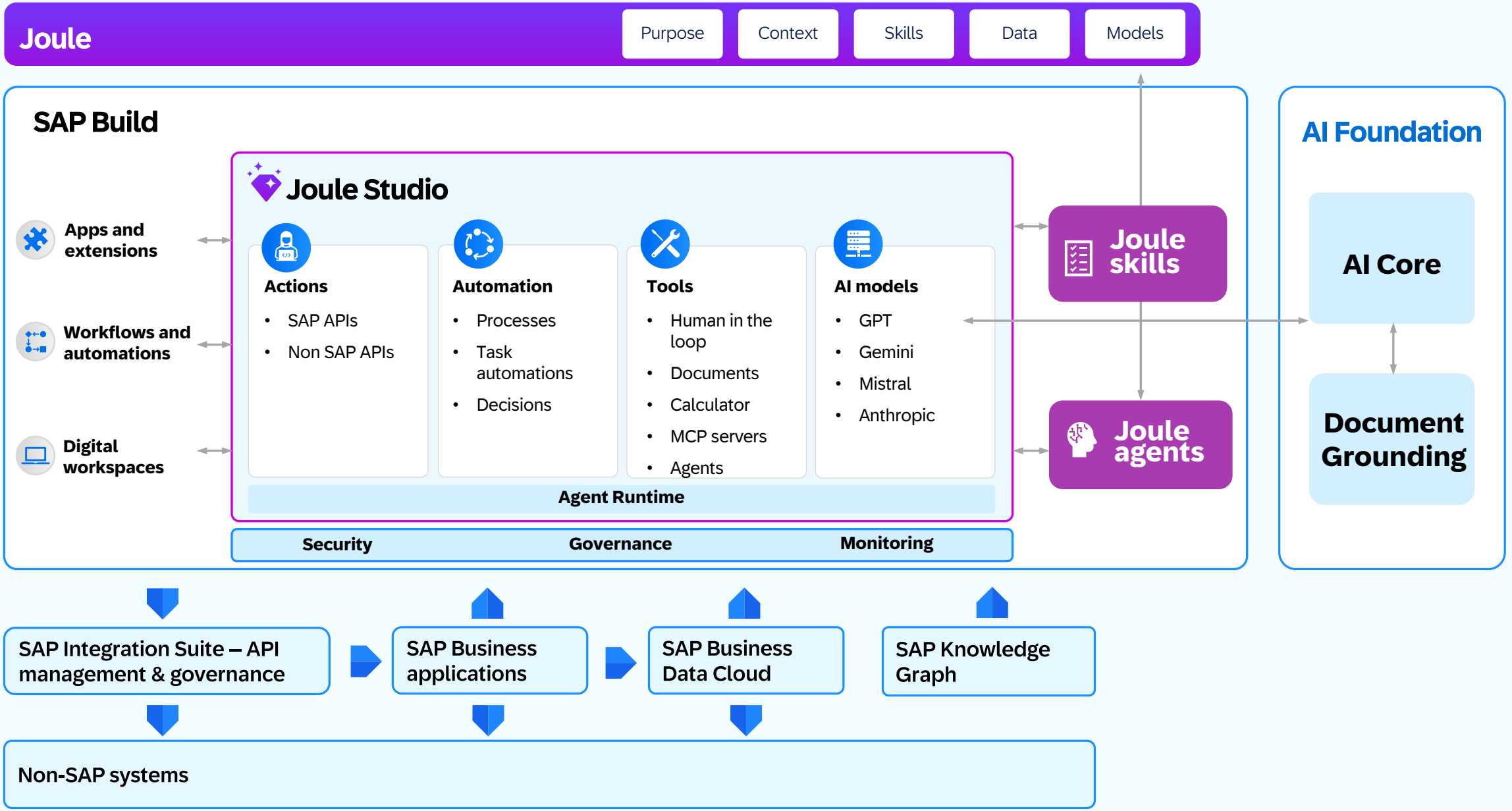
Building Agents with Joule Studio

Joule Studio in SAP Build

Build Joule agents and skills for specific business needs with drag and drop simplicity.

These capabilities extend Joule copilot and enhance efficiency.




Joule
Purpose
Context
Skills
Data
Models
SAP Build
Joule Studio
Apps and extensions
Workflows and automations
Digital workspaces
Actions
SAP APIs
Non SAP APIs
Automation
Processes
Task automations
Decisions
Tools
Human in the loop
Documents
Calculator
MCP servers
Agents
AI models
GPT
Gemini
Mistral
Anthropic
Agent Runtime
Security
Governance
Monitoring
Joule skills
Joule agents
AI Foundation
AI Core
Document Grounding
SAP Integration Suite – API management & governance
SAP Business applications
SAP Business Data Cloud
SAP Knowledge Graph
Non-SAP systems

What are AI agents?

Attributes

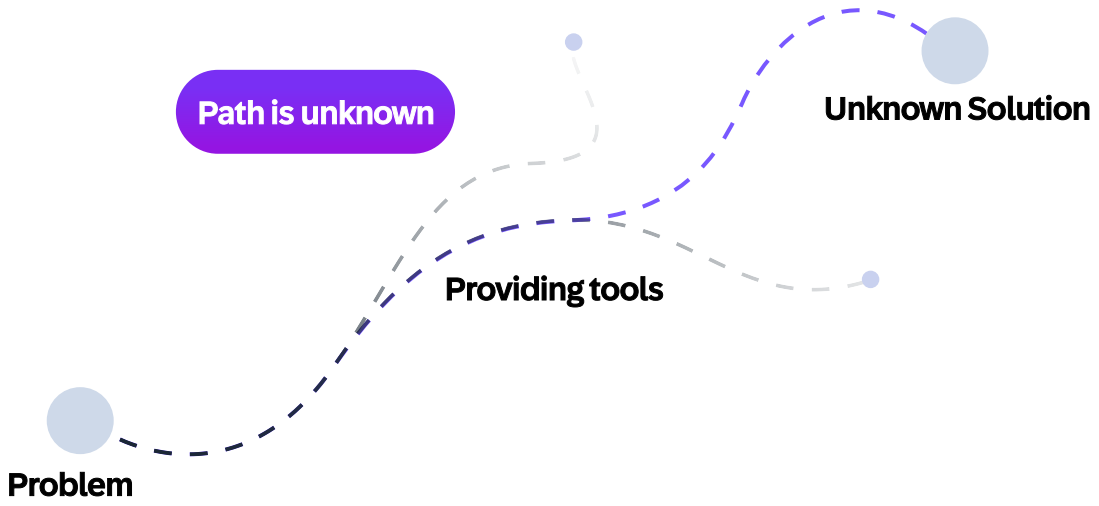
- Planning
- Reasoning
- Autonomy
- Agent-agent communication

LLMs | Tools

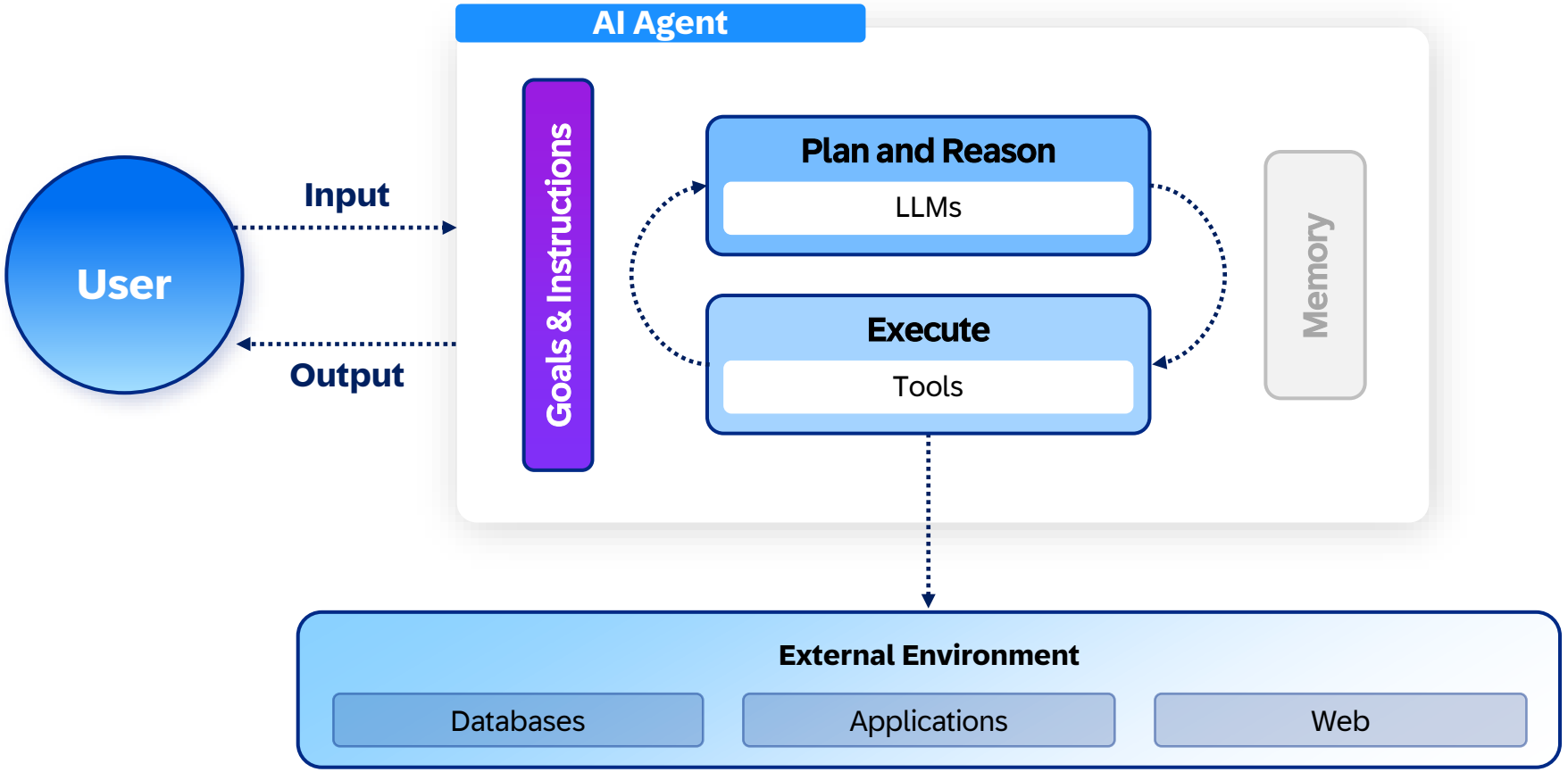
Examples

- Optimize shipment logistics
- Manage talent acquisition
- Negotiate procurement deals

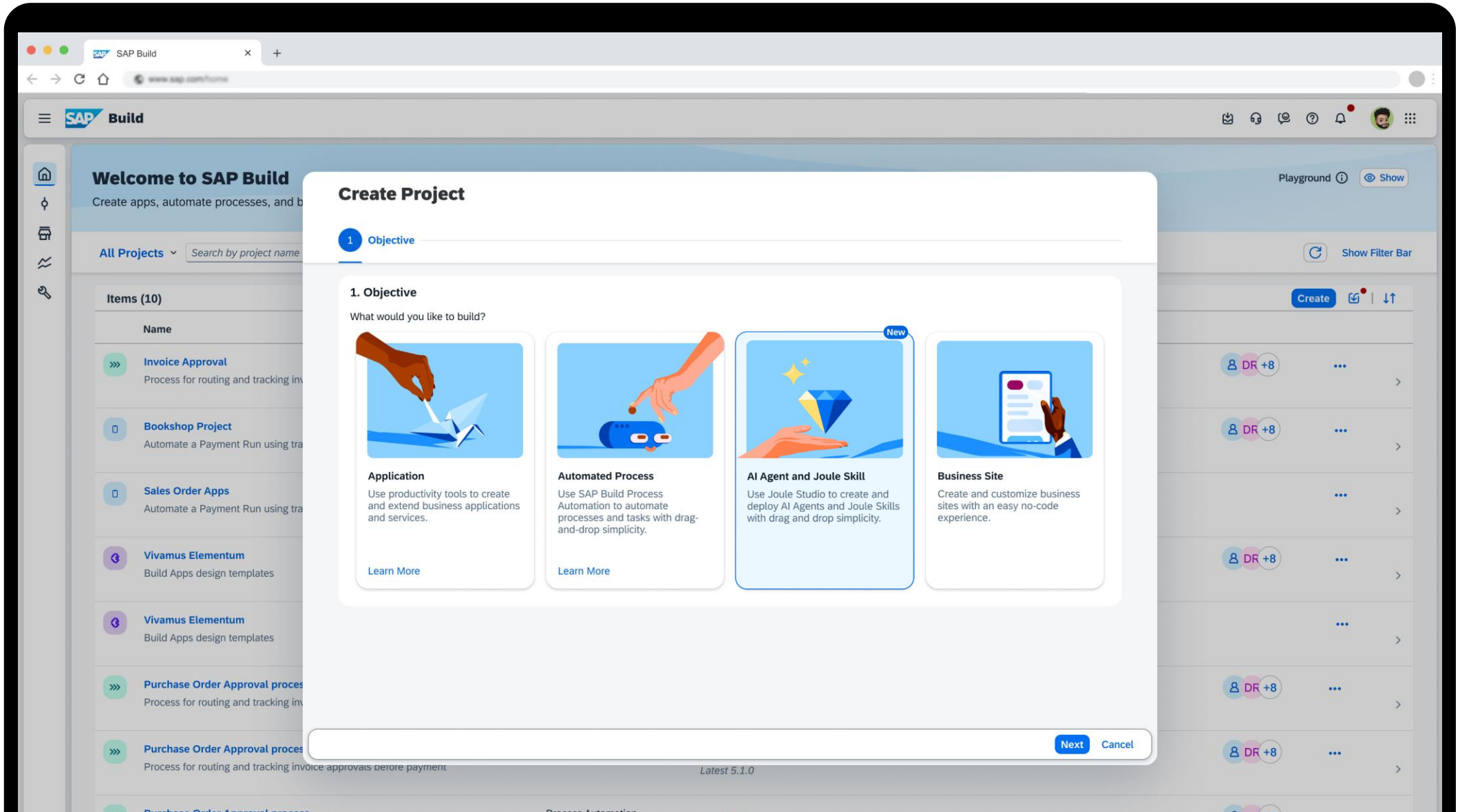
AI agents can execute complex business scenarios by iteratively reasoning and interacting with their environment to achieve a goal.



How does an AI Agent works?



Start Joule skill and agent design in Joule Studio



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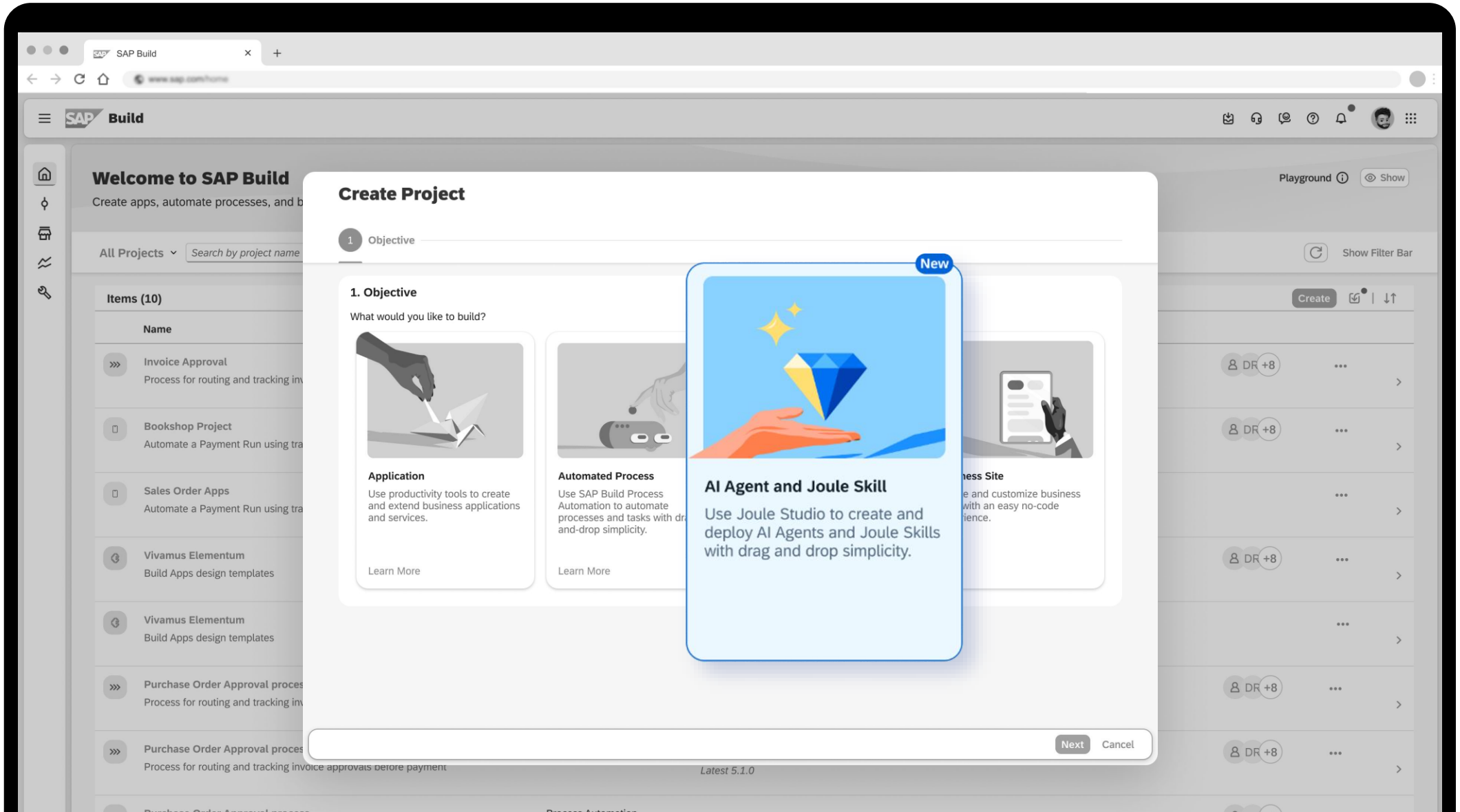
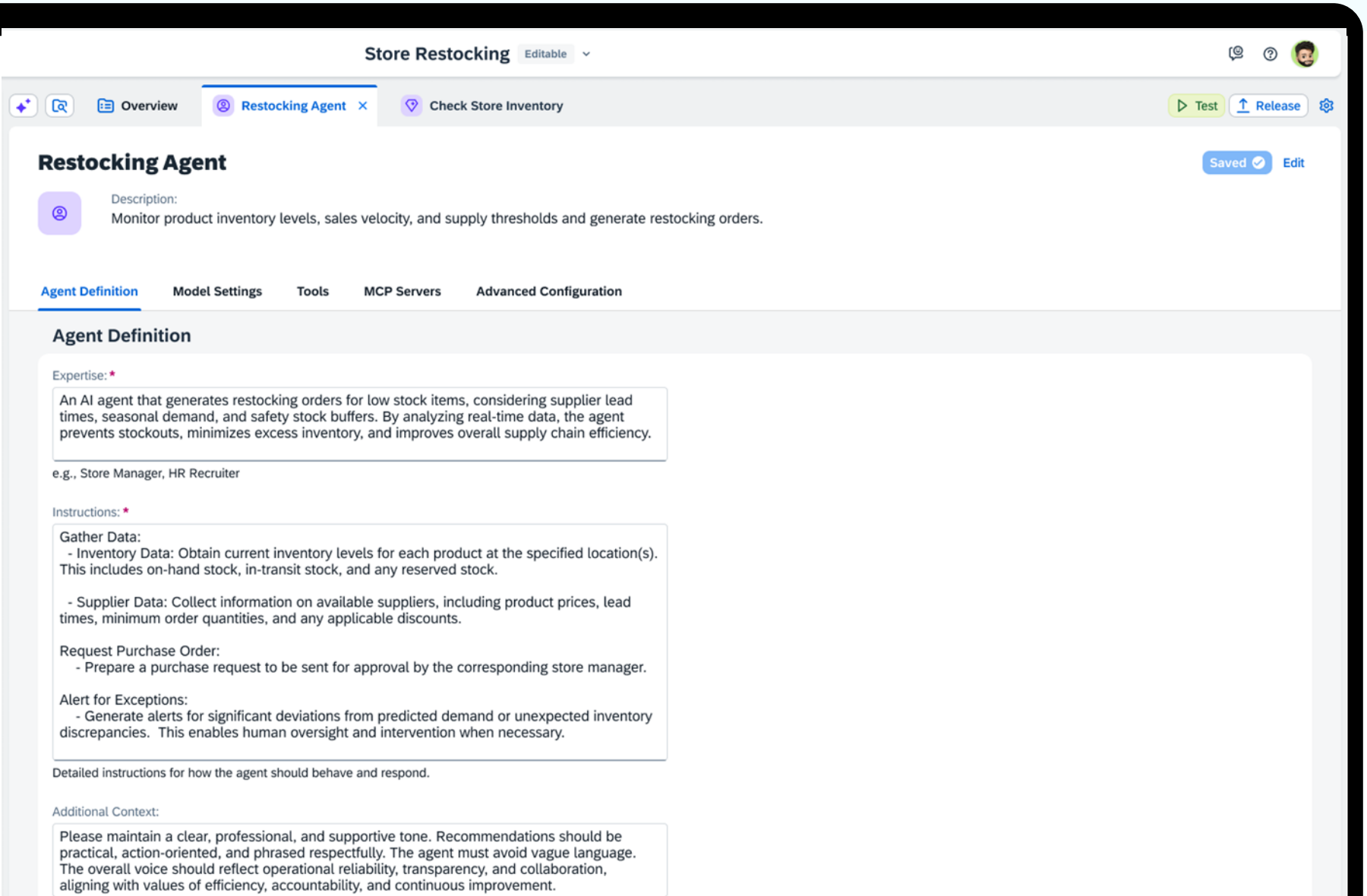
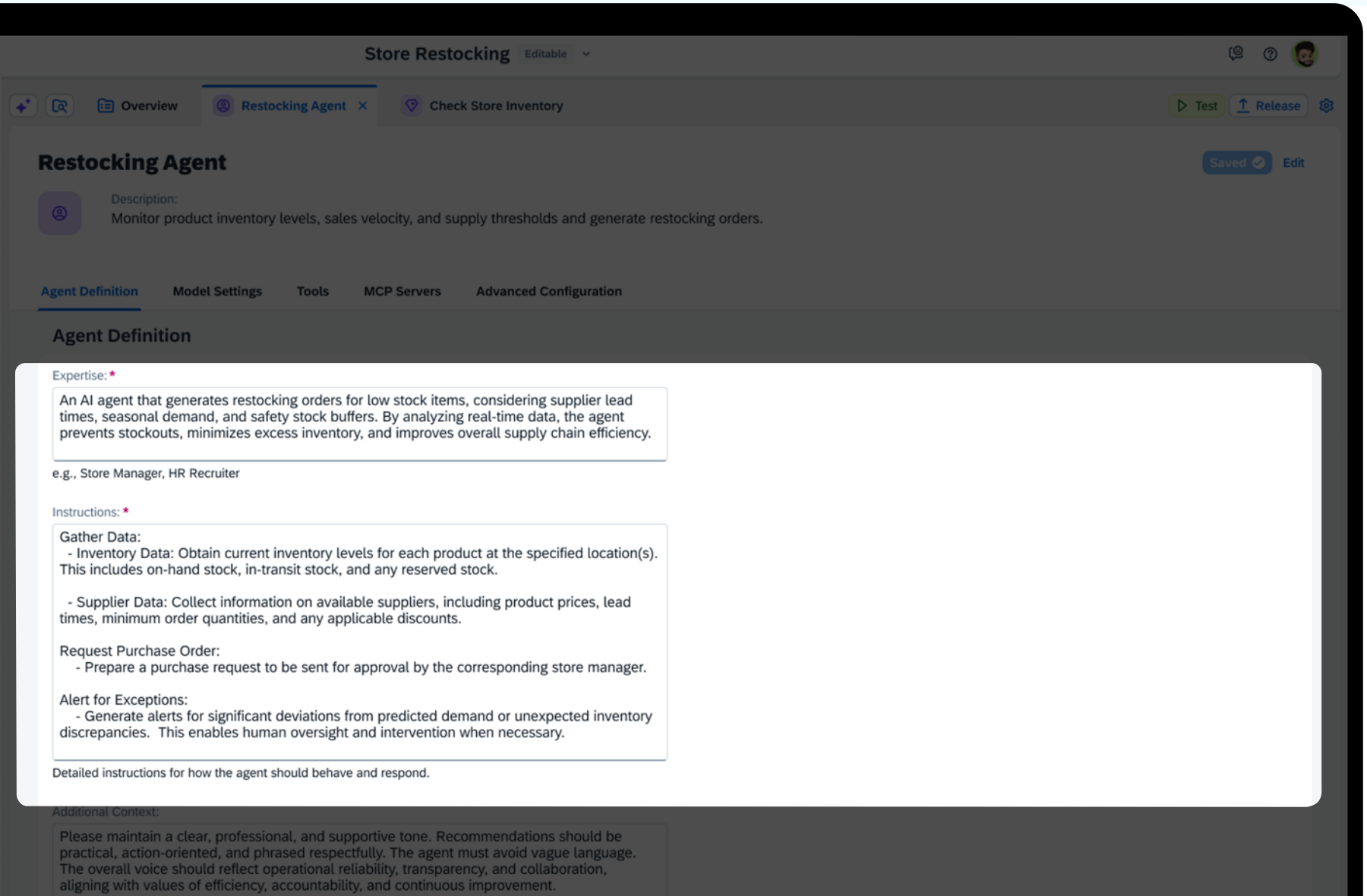


Design an agent

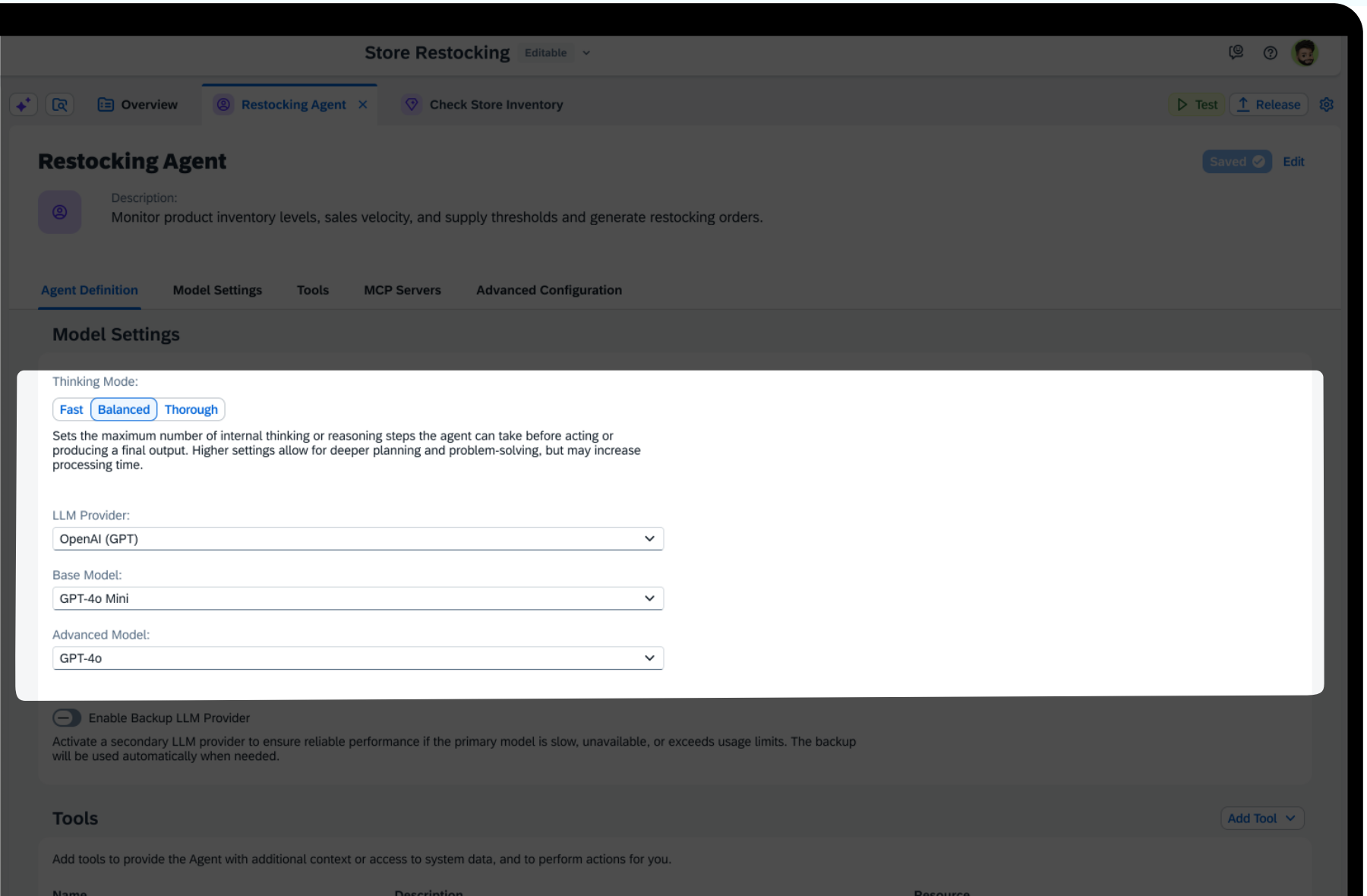


Design an agent



1. **Specialize agents with instructions**

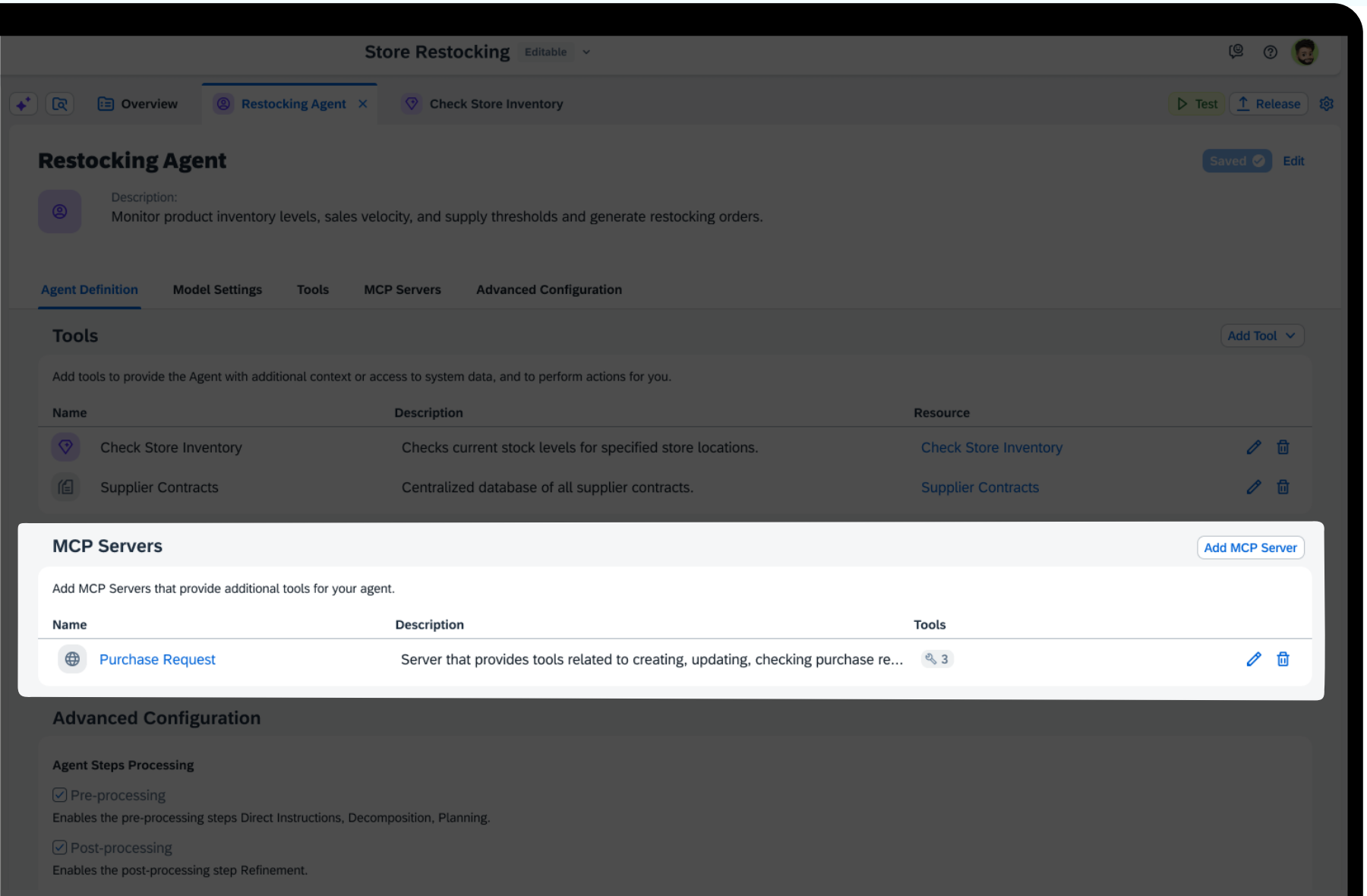
Design an agent



1. Specialize agents with instructions

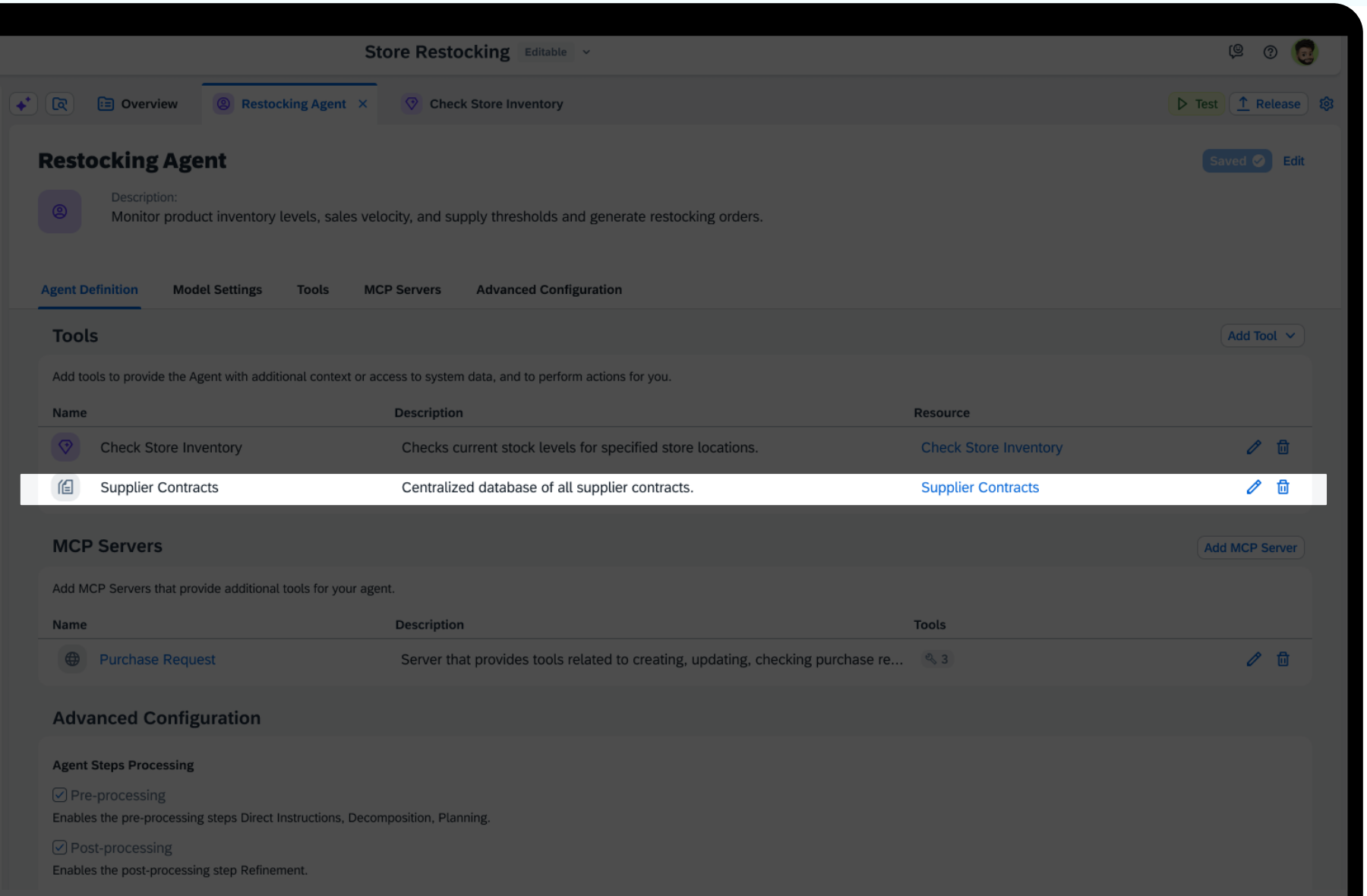
2. Select a model of your choice

Design an agent



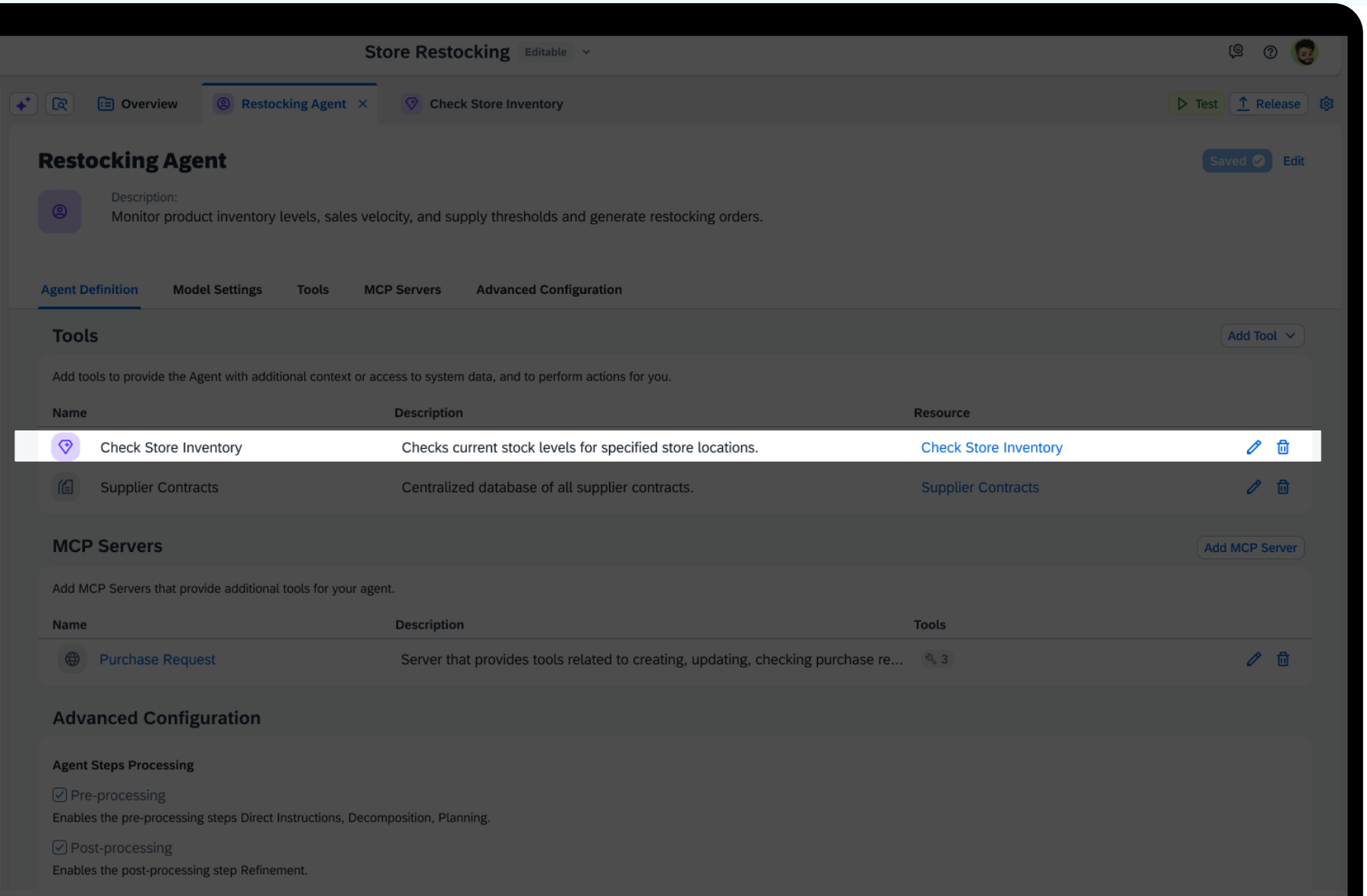
1. Specialize agents with instructions
2. Select a model of your choice
3. Configure MCP Servers to connect agents with external tools

Design an agent



1. Specialize agents with instructions
2. Select a model of your choice
3. Configure MCP Servers to connect agents with external tools
4. Ground agent in business data through documents

Design an agent



1. Specialize agents with instructions
2. Select a model of your choice
3. Configure MCP Servers to connect agents with external tools
4. Ground agent in business data through documents
5. Assign Joule skills for rule-based, process execution

Evolution of AI support in SAP Build

Agentic development with SAP MCPs

Agentic Coding

Autonomous Code Generation

AI agents independently generate and modify code, requiring minimal human involvement for software development.

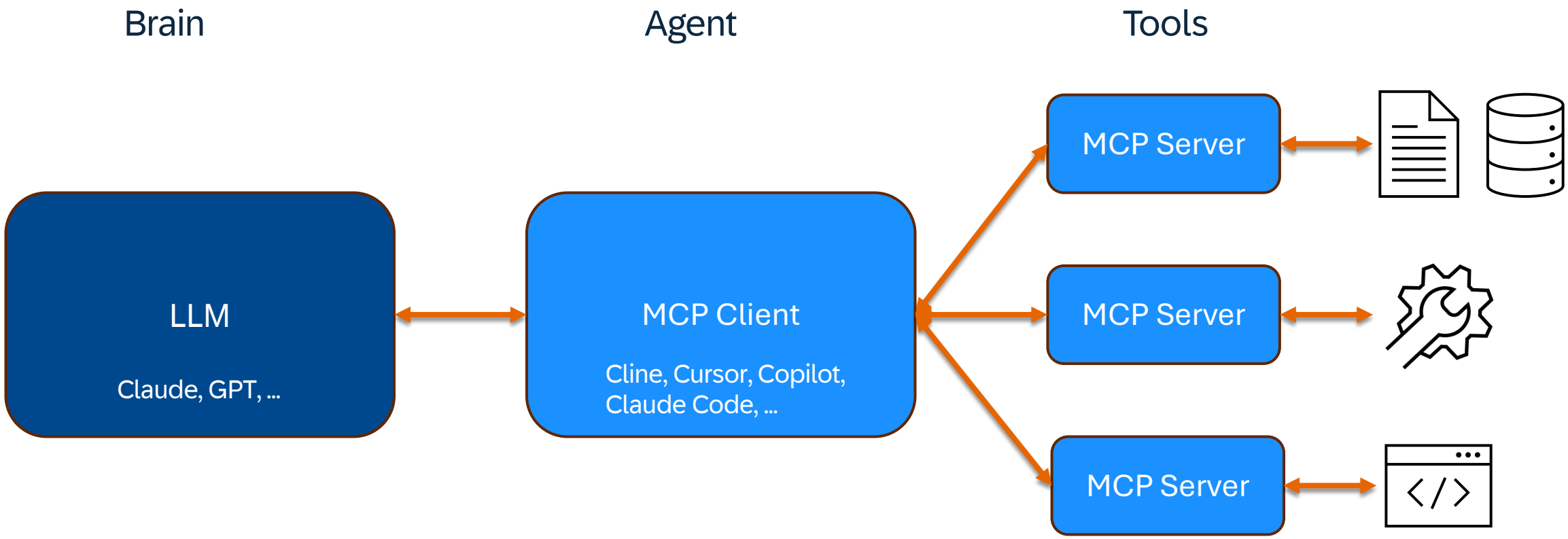
Proactive Error Detection

Systems automatically identify, test, and optimise code, ensuring continuous improvement without manual intervention.

Collaborative Multi-Agent Workflow

Multiple agents work together on architecture, deployment, and enhancement, enabling adaptive and streamlined codebases.

Model Context Protocol And AI Code Assistants



The **Model Context Protocol (MCP)** is an open standard that lets AI models interact with their environment via external **tools**, **data sources**, and **workflows** via clients

Scaling AI Agents with SAP Expertise - SAP Build MCPs

Enabling Agentic Development

MCP servers enable agentic development across SAP's application landscape, bridging any AI Coding Assistant and development tool.

Experts in SAP Technologies

MCP servers support SAP CAP, SAPUI5, Fiori Elements, and Mobile Development Kit enhancing developer workflows with structured environment interaction.

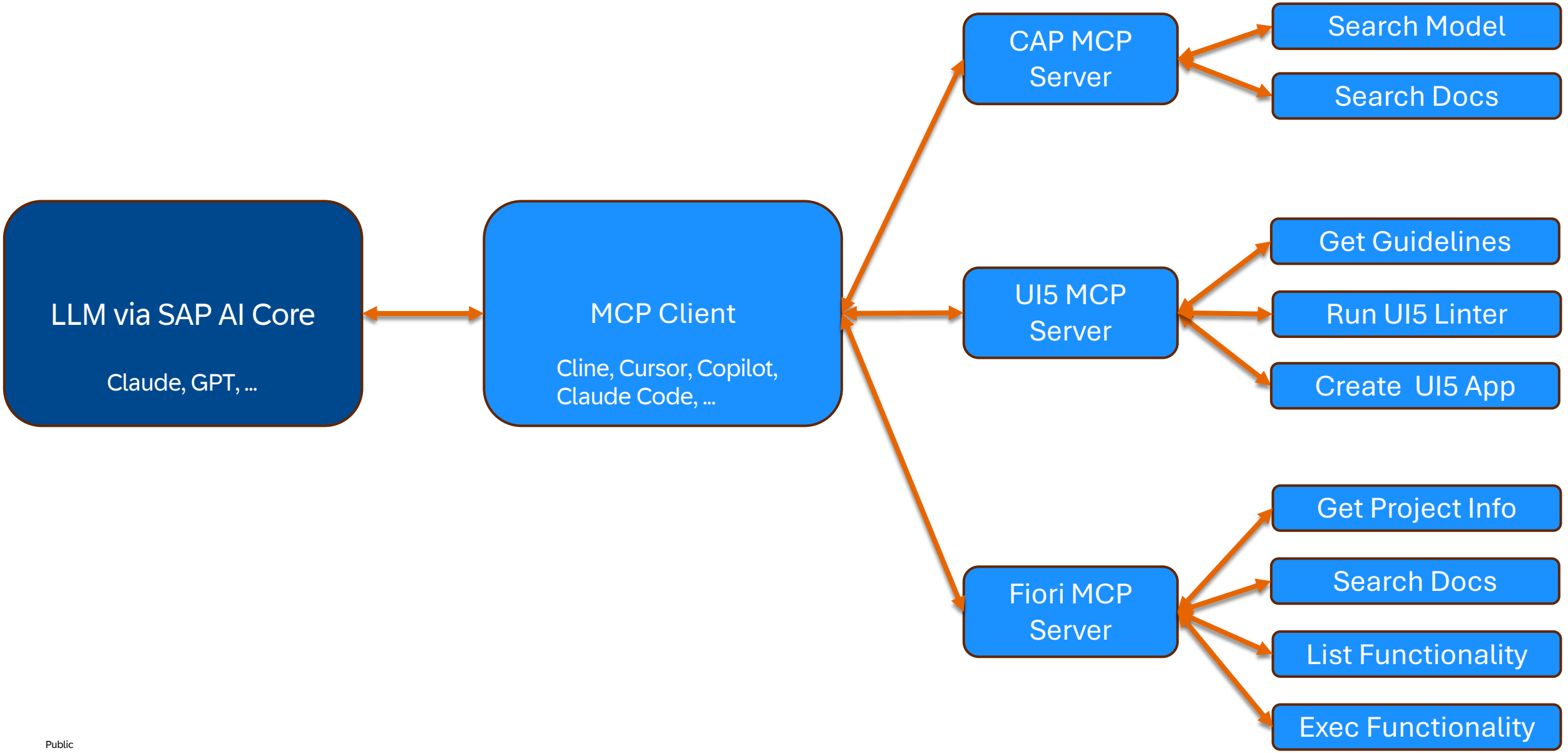
Open-Source Commitment

SAP releases MCP servers under Apache-2.0 license, promoting openness and community-driven innovation.

Boosting Developer Productivity

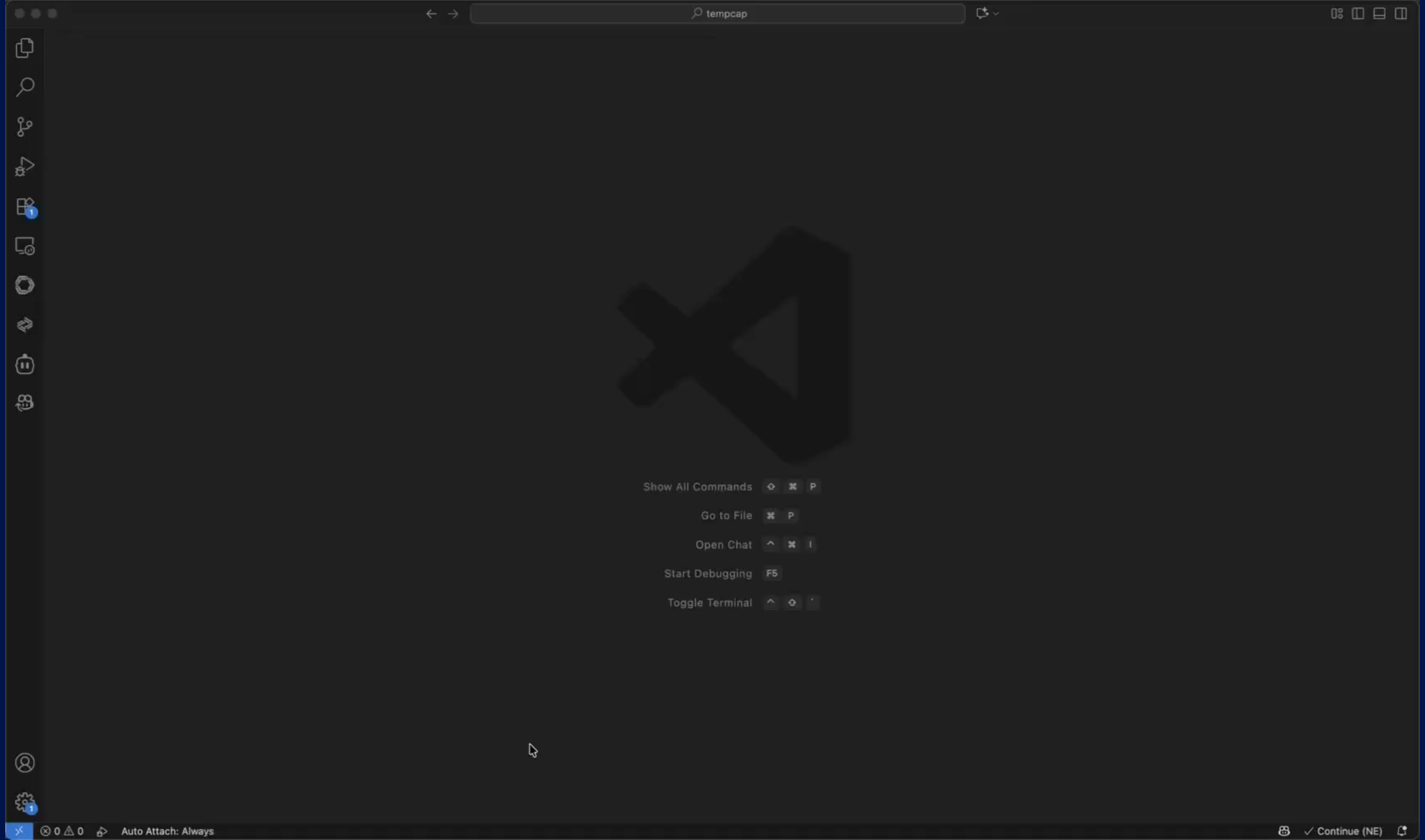
Integration with popular IDEs and AI assistants enhances productivity by enabling code generation and context access without switching tools.

MCP Servers for Golden Path Development on the BTP



Public

Demo – Agentic Development


tempcap
Show All Commands
Go to File
Open Chat
Start Debugging
F5
Toggle Terminal
Auto Attach: Always
Continue (NE)

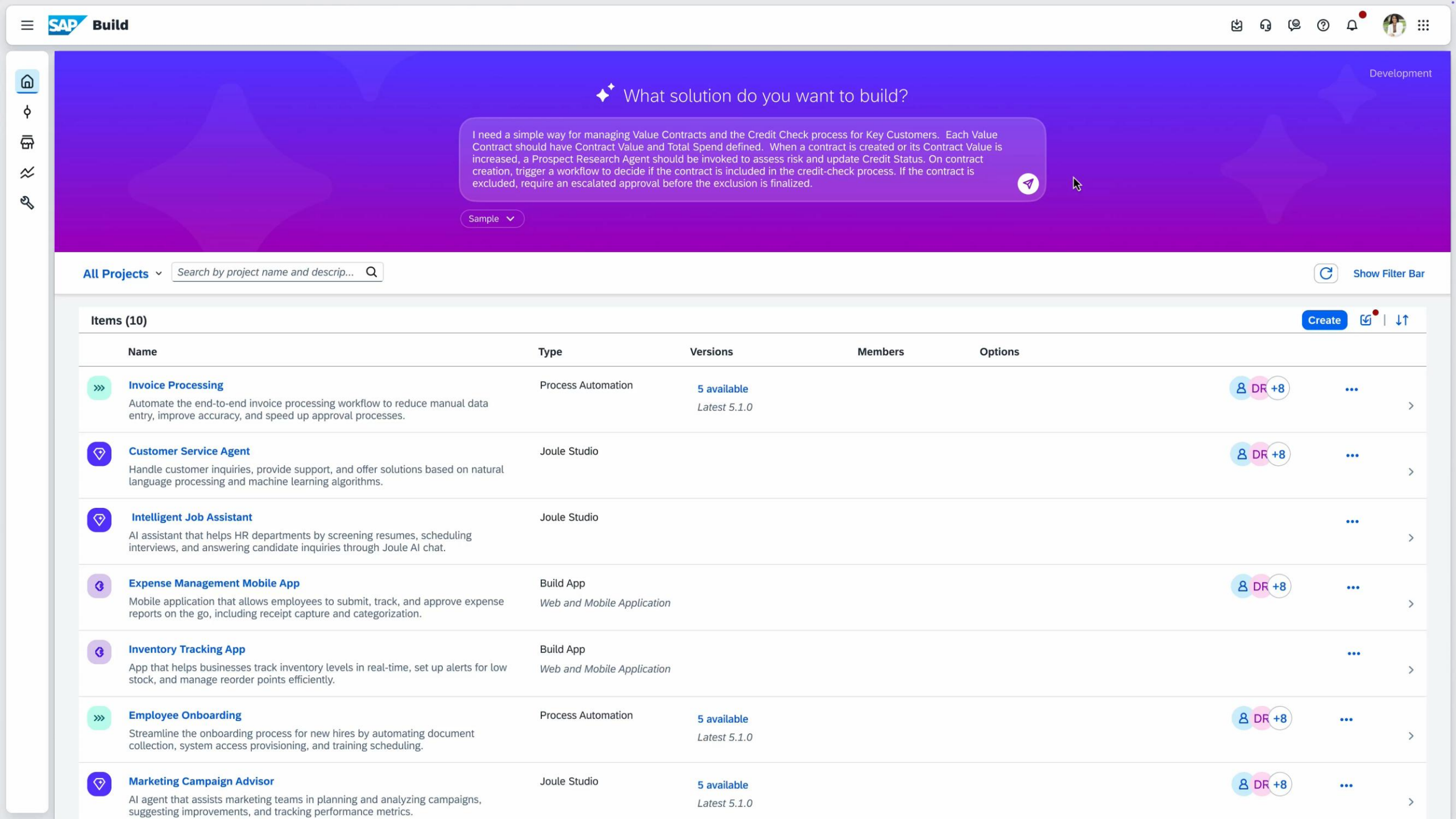
How AI can boost your development in SAP Build

SAP Build solutions and Vibe coding

AI is reshaping the future of software development.

SAP Build is evolving into a unified, AI-driven platform —anchored in AI standards, designed for openness, and built to extend our ecosystem through seamless integration with developer tools.

SAP Vibe Coding Preview


Build
Development
What solution do you want to build?
I need a simple way for managing Value Contracts and the Credit Check process for Key Customers. Each Value Contract should have Contract Value and Total Spend defined. When a contract is created or its Contract Value is increased, a Prospect Research Agent should be invoked to assess risk and update Credit Status. On contract creation, trigger a workflow to decide if the contract is included in the credit-check process. If the contract is excluded, require an escalated approval before the exclusion is finalized.
Sample
All Projects
Search by project name and descrip...
Show Filter Bar
Items (10)
Create
Name
Type
Versions
Members
Options
Invoice Processing
Automate the end-to-end invoice processing workflow to reduce manual data entry, improve accuracy, and speed up approval processes.
Process Automation
5 available
Latest 5.1.0
DR +8
Customer Service Agent
Handle customer inquiries, provide support, and offer solutions based on natural language processing and machine learning algorithms.
Joule Studio
DR +8
Intelligent Job Assistant
AI assistant that helps HR departments by screening resumes, scheduling interviews, and answering candidate inquiries through Joule AI chat.
Joule Studio
Expense Management Mobile App
Mobile application that allows employees to submit, track, and approve expense reports on the go, including receipt capture and categorization.
Build App
Web and Mobile Application
DR +8
Inventory Tracking App
App that helps businesses track inventory levels in real-time, set up alerts for low stock, and manage reorder points efficiently.
Build App
Web and Mobile Application
Employee Onboarding
Streamline the onboarding process for new hires by automating document collection, system access provisioning, and training scheduling.
Process Automation
5 available
Latest 5.1.0
DR +8
Marketing Campaign Advisor
AI agent that assists marketing teams in planning and analyzing campaigns, suggesting improvements, and tracking performance metrics.
Joule Studio
5 available
Latest 5.1.0
DR +8

Start using SAP Build today

Use SAP Build to maximize your SAP software investments

Mobile and web

Access applications and collaborate across devices

Create mobile apps, front-end SAP Fiori apps, and digital workspaces

Build faster and extend to meet your unique business needs

AI and enterprise automation

Accelerate enterprise automation end to end

Gain visibility into inefficiencies across your IT landscape

Rapidly optimize with AI-enabled automation

Clean core

Enable modern, flexible, and cloud-ready ERP and core systems

Extend and customize core systems to remain as untouched as possible

Gain agility, efficiency, reliable data and insights, and reduced TCO

Get started with SAP Build solutions

1 Try it out and activate SAP Build

- Initial Setup of SAP Build
- SAP Build Setup and Configuration Walkthrough
- Free Trial of SAP Build

2 Join our communities

- Application Development and Automation
- ABAP environments

3 Get social

4 Start with tutorials

- Get Started with SAP Build
- Introducing Joule Studio in SAP Build
- SAP Developer Tutorials

5 Read through materials

- SAP Build Service Guide
- Feature Scope Description

6 Get certified

Become an SAP-certified associate—low-code/no-code developer

Begin your extension journey today with SAP Build

Get started at no cost

Start your free trial of SAP Build now

Activate your SAP Build entitlements included in your RISE for SAP journey

Learn more

Visit the SAP Build for SAP S/4HANA page

Try the SAP Learning Journey for SAP Build

Accelerate development

Explore prebuilt content for SAP S/4HANA Cloud available for SAP Build

Check out activation services available to help you get set up

Thank you

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