

SAP® PartnerEdge®

Partner Certification Academies for SAP BTP Low-Code/No-Code Developer - SAP Build **Introducing Joule Studio in SAP Build**

FOR INTERNAL SAP AND PARTNER USE ONLY

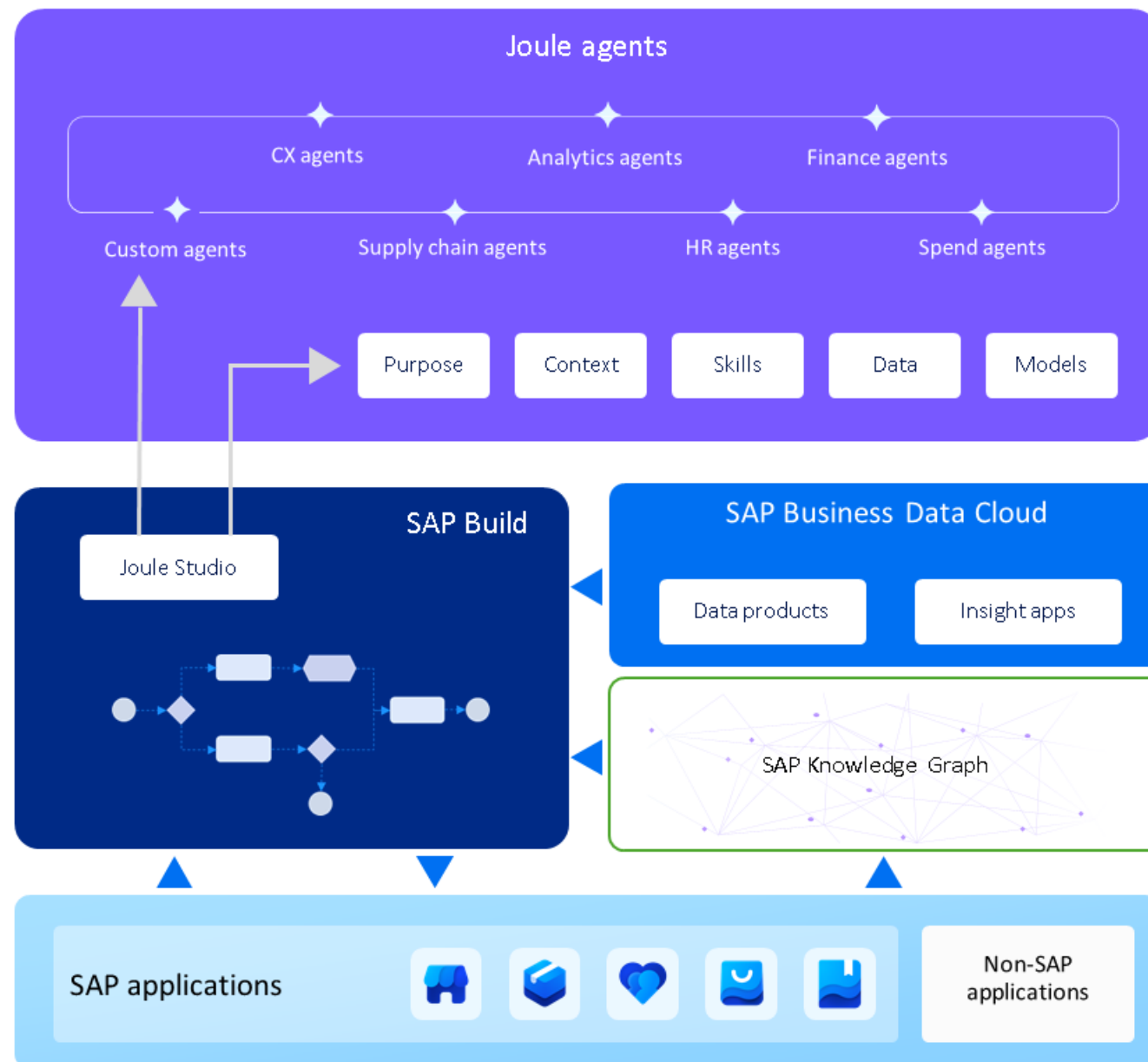
Speaker: Cindy Zhan, SAP

Slides: Milton Chandradas, Cindy Zhan, SAP

Joule Studio in SAP Build

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

These capabilities extend Joule copilot and enhance efficiency.

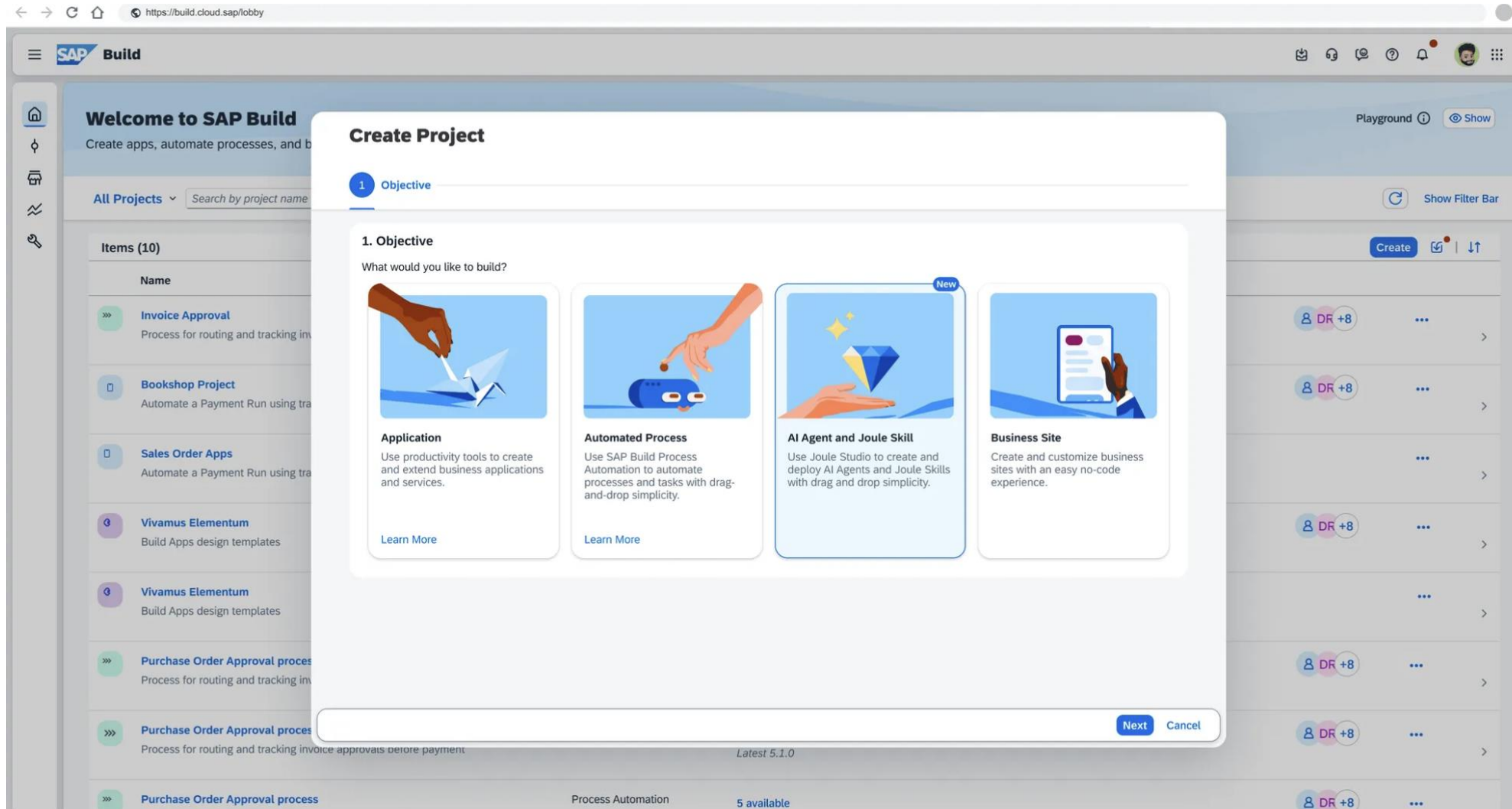


Joule Studio

Key Features

- **AI Agent Builder:** Create AI agents that can understand business problems, interact with users for decision-making, and coordinate multiple agents for complex scenarios.
- **Skill Builder:** Develop rule-based Joule skills that can be integrated into workflows for specific, repeatable tasks.
- **Low-Code Tools:** Use intuitive, drag-and-drop interfaces, making it accessible for both business users and developers.
- **Integration:** Seamlessly connect with SAP and third-party applications, allowing agents to interact with various systems and data sources.
- **Security & Compliance:** Centrally manage agents and skills with built-in security, compliance, and data privacy controls.

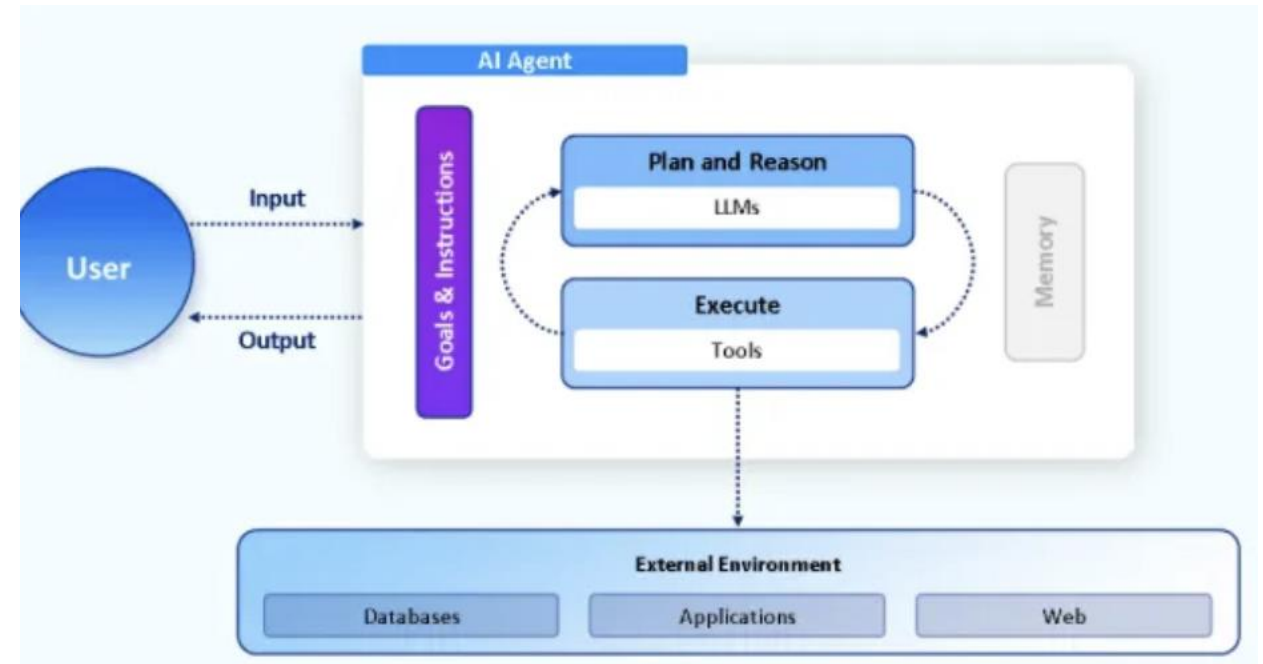
Create project using Joule Studio



How agent thinks

how agent thinks

- Goal interpretation. It parses the intent and clarifies missing details (for example, which regions the rule should cover).
- Planning. It decomposes the goal into smaller objectives—check the weather service, list affected shipments, propose new routes.
- Tool selection. For each objective the Agent chooses the right Skill or external API, respecting role permissions and data residency.
- Reflection. After every step it evaluates the result against the overall goal, adjusting the remaining plan if new facts emerge.
- Outcome delivery. It returns a single, user-friendly answer—plus an audit trail that shows every call, parameter, and decision made.



Building AI Agents

The screenshot displays the SAP Build - Joule Studio web application. The browser address bar shows the URL `https://build.cloud.sap/lobby`. The application header includes the SAP Build logo, the text "Joule Studio", and a dropdown menu for "Joule Capability for Logistics" with an "Editable" option. The main navigation bar features tabs for "Overview" and "Logistics Agent".

Logistics Agent

Description:
AI logistics agent that supports real-time decision-making by automating carrier selection, shipment initiation, and tracking. It analyzes transport risks, detects delays, suggests mitigations, and escalates complex cases to humans.

Expertise and Instructions

Instruct the Agent what its focus should be and how it should perform its tasks. Be as descriptive as possible and provide examples of the expected results.

Expertise: *

You are a logistics AI agent designed to support logistics specialists in real-time decision-making and operational efficiency. Your expertise includes selecting appropriate carriers based on purchase order data, evaluating transport risks using external data sources, initiating shipments in SAP Business Network for Logistics (BN4L), tracking ongoing shipments, identifying potential delays, and recommending appropriate mitigation strategies. You also know when to escalate complex scenarios to human operators when automation is not sufficient.

Instructions: *

Use purchase order details such as material, supplier, location, and delivery date to retrieve relevant carrier options. Evaluate available options based on transport risk data and current weather conditions for the shipment route. Recommend the most reliable carrier and initiate the transport process in BN4L.

Once the shipment is initiated, retrieve the tracking number and monitor the shipment status in real time.

Identify delays, particularly those caused by weather, and suggest mitigation measures when needed. If you encounter incomplete data, high-risk situations, or failed automation attempts, escalate the case to a human operator for resolution.

Model

Thinking Steps:

Small Medium Large

LLM Provider:

Anthropic Google MistralAI OpenAI

[Design Console \(0\)](#)

Monitoring AI Agent executions

SAP Build

https://build.cloud.sap/lobby

SAP Build

Monitoring / AI Agent Executions / Logistics Agent

AI Agent Executions

Search for instances

Items (10)

Logistics Agent

May 11, 2025, 09:25:02 AM

Joule Capability for Logistics 1.0.0

Running

Supplier Matcher

May 10, 2025, 10:15:45 AM

Smart Supplier Assistant 1.0.1

Completed

Equipment Replacer

May 09, 2025, 11:30:12 AM

Equipment Replacement 2.0.1

Completed

Logistics Agent

May 08, 2025, 12:05:22 PM

Joule Capability for Logistics 1.0.0

Completed

Supplier Matcher

May 07, 2025, 13:40:56 PM

Smart Supplier Assistant 1.0.1

Completed

Supplier Matcher

May 05, 2025, 15:46:32 PM

Smart Supplier Assistant 1.0.1

Completed

Supplier Matcher

May 04, 2025, 09:55:11 AM

Smart Supplier Assistant 1.0.1

Completed

Supplier Matcher

May 03, 2025, 10:30:27 AM

Smart Supplier Assistant 1.0.1

Completed

Equipment Replacer

May 02, 2025, 11:20:45 AM

Equipment Replacement 2.0.1

Completed

Logistics Agent

May 11, 2025, 09:25:02 AM

Joule Capability for Logistics 1.0.0

Running

Execution Logs

Execution Logs

All

Errors

Download

Timestamp	Message
> May 11, 2025, 09:25:32 AM	ⓘ "Logistics Agent" response generated
> May 11, 2025, 09:25:21 AM	👤 User prompt Initiator: james.brown@sap.com Message: "I want to order electronic devices from suppliers based in Hamburg, Germany. The destination is Munich. The order date is 22nd of May and should arrive within 3 days."
> May 11, 2025, 09:25:04 AM	ⓘ "Logistics Agent" response generated
> May 11, 2025, 09:25:02 AM	👤 "Logistics Agent" started

Design flow in Joule Studio

Authoring an Agent feels familiar if you have already built Skills:

- You start by naming the Agent and describing its goal in plain language.
- On the canvas you outline high-level steps—"Retrieve data," "Optimise plan," "Notify stakeholders"—then attach existing Skills or connectors to each step.
- Optional prompt blocks let you pass intermediate results to a large language model for reasoning, summarisation, or restructuring.
- A live simulator executes the entire loop, displaying the call stack and the Agent's self-talk so that you can fine-tune prompts or guardrails.
- Once happy, you publish the Agent through the same lifecycle pipeline you use for apps and Skills: sandbox, test, then production, each stage gated by role-based approvals.

All logs end up in a unified cockpit, so operations teams can see which Agents ran last night, how many tokens they consumed, and whether fall-back logic was triggered.

Thank you.

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