

Build an AI Agent that
can reason and take
action to automate your
organization (**CCL1054**)



WiFi - K25Learning
PW - Training@K25

Build an AI Agent that can reason and take action to automate your organization

CCL1054

Lab guidebook

<https://bit.ly/ccl1054-k25>

Student Instance Reservation Page
<https://clabs.link/ccl1054-8nsbh>
Reservation code - 1KYDB

servicenow®

Two speakers



servicenow[®]

Victor Chen

Sr Staff Outbound Product Manager
ServiceNow



servicenow[®]

Dan Andrews

Sr Staff Inbound Product Manager
ServiceNow

Safe harbor notice for forward-looking statements

This presentation may contain “forward-looking” statements that are based on our beliefs and assumptions and on information currently available to us only as of the date of this presentation. Forward-looking statements involve known and unknown risks, uncertainties, and other factors that may cause actual results to differ materially from those expected or implied by the forward-looking statements. Further information on these and other factors that could cause or contribute to such differences include, but are not limited to, those discussed in the section titled “Risk Factors,” set forth in our most recent Annual Report on Form 10-K and Quarterly Report on Form 10-Q and in our other Securities and Exchange Commission filings. We cannot guarantee that we will achieve the plans, intentions, or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. The information on new products, features, or functionality is intended to outline our general product direction and should not be relied upon in making a purchasing decision, is for informational purposes only, and shall not be incorporated into any contract, and is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. The development, release, and timing of any features or functionality described for our products remains at our sole discretion. We undertake no obligation, and do not intend, to update the forward-looking statements.

Agentic AI solves for high variability & high complexity

UNLOCKING MILLIONS OF AUTOMATION OPPORTUNITIES FOR CUSTOMERS

Deterministic Workflows

Rule-based & predictable

Some flexibility and exception-handling

Good for well-defined tasks or
highly-regulated use cases

Provision laptop
to a new employee

Request manager to
approve expense report

Agentic Workflows

Highly flexible & adaptable

Understands context & intent

Able to leverage rule-based workflows

Good for undefined & complex tasks

Automate a time sheet
based on "unstructured
data" of a week's activities

Determine and execute
follow-ups from a
business dinner

ServiceNow AI Agents



AGENTIC WORKFLOW

This is the overall business problem or goal you're trying to solve.

Think of it as the **why**—the reason you're deploying AI agents.

WHY

AI AGENT ORCHESTRATOR

the orchestrator conducts the planning and leads a team of AI Agents to address a given use case.

HOW

AI AGENT

the virtual worker that performs specific tasks.

The AI Agent will leverage tools from the platform (workflow, skill, script, KB, etc.) to perform the task.

WHO

TOOLS

The technologies and resources that AI Agents leverage to perform their tasks and achieve the use case.

WHAT

Getting Started

How to install and activate AI Agents

Prerequisites:

- Now Assist license (Pro Plus/Enterprise Plus)
- Yokohama Patch 1+, Xanadu Patch 7+
- AI Agents store app installed. Make sure dependency apps and main "Now Assist for..." store apps are also installed and updated.
- AI Search enabled
- Now Assist Panel turned on

Turning on AI Agents:

- Add role: **sn_aia.admin**
- In your instance, navigate to **All > AI Agent Studio > Overview**

Additional considerations:

- AI Agents use the context of your ticket and your searchable content to generate plans and actions. Ensure that your ticket data and knowledge base have the latest accurate information for the best results.

Lessons Learned

 You are dealing with non-deterministic systems. Running the same thing twice might give different results due to LLM and instructions

 When creating your use case, keep it simple. Start with a clear team capability statement. Try to maintain a single processing step.
Example: "This team can handle [specific task] related to [system]." Or "Process [specific] request."

 When creating use cases with more than one assigned agents make sure the agents are defined clearly with non-overlapping responsibilities and include explicit limitations in the agents' roles.

 **The Agent Framework is using GPT-4o** and has a 128K token context window. There is a limit of 150 LLM calls per conversation. The more tools and agents contained within a use case, Orchestration performance may differ (we don't recommend >15).

 **Agent names and descriptions are important.** The Orchestrator is using the Agent name, role, description, and tools to build out the agent "proficiency" that is used to find the right agent. If you are testing or using a trigger and you notice the orchestrator saying there are no agents to perform the task, review your agent information. You can also try changing the object in your use case trigger or rewording your task in AI Agent Studio.

 **Start simple**, iterate based on observed performance. Use structured sections with clear headers. Include examples of correct agent behavior. Anticipate and prevent common failure modes. The most effective prompts combine structural clarity with explicit verification requirements.

Designing Effective AI Agent Prompts

Role Definition (Prevents 15% of Failures)

- Define precise agent responsibilities with clear boundaries
- Establish explicit authority limits and decision-making scope
- Specify reporting relationships in multi-agent systems

Example:

You are a ServiceNow Incident Prioritization Agent whose sole responsibility is to analyze incident details and recommend priority levels (P1-P4). You should NOT create incidents, assign resources, or suggest resolution steps. When asked about matters outside your scope, redirect users to the appropriate team.

Task Specification (Prevents 20% of Failures)

- Break complex tasks into discrete, manageable steps
- Provide explicit success criteria for each objective
- Define input/output formats precisely
- List constraints the agent must respect

Example:

When analyzing a security alert, follow these discrete steps:
1. Extract the affected system name, alert type, and timestamp
2. Evaluate the alert against the defined severity criteria table
3. Check for related alerts in the past 24 hours
4. Produce a structured report with these sections: Alert Summary, Severity Assessment, Related Incidents, Next Actions

Designing Effective AI Agent Prompts

Verification Mechanisms (Prevents 30% of Failures)

- Require documentation of verification processes
- Implement validation of both reasoning and outputs
- Include checks for edge cases and unexpected values
- Mandate explicit confirmation before finalizing outputs

Example:

Before finalizing your plan:

1. Take a moment to pause and ensure clarity of thought
2. Document your verification process in a dedicated "VERIFICATION" section
3. Only after these verification steps, present your final plan

Termination Conditions (Prevents 15% of Failures)

- Define explicit criteria indicating task completion
- Require comprehensive verification before concluding
- Establish handoff procedures between agents
- Specify documentation requirements for completed work

Example:

Before concluding your task analysis, you must complete this verification checklist:

- All user requirements have been addressed
- Each deliverable has been verified against acceptance criteria
- Edge cases and error conditions have been identified
- Performance implications have been assessed
- Security considerations have been documented

Only when all checkboxes are complete may you indicate task completion with: [TASK_COMPLETE] Task Analysis for Requirement #INC20250134

Troubleshooting

"There are no agents available at the moment. Please try again later."

- Quick fixes
 - Update to the latest (stable) instance version and store app
 - Make sure your AI Agent is active and connected to your use case
 - Make sure your tools are active
 - Make sure that AI Search, Now Assist Panel are enabled (with roles)
- Review your **agent "proficiency"** [sn_aia_agent] - auto-generated based on agent description, roles, tools, and instructions. Used by the Orchestrator. The proficiency should cover your expected instructions and Objective.

The use case/agent doesn't run as expected.

- Check agent proficiency and prompts
- Check the Execution Plan and Task tables [sn_aia_execution_plan], [sn_aia_execution_task] - see tasks and statuses, compare proficiency to Objective

Lab time!



AI Agent Features Added for May 2025 release

- AI Agent Troubleshooting and Monitoring dashboard
- Support for Now LLM as an option for Orchestrator
- New tools: Knowledge Graph, File Upload
- Access AI Agents in the Virtual Agent
- Enhancements to the Orchestrator and the 'Run As' field
- New Out-of-box AI Agents:
 - Now Assist in Document Intelligence
 - Now Assist for ITSM – *Plan Changes, Recommend Incident Resolution*
 - Now Assist for HRSD – *Generate Onboarding Ramp up Plan*
 - Now Assist for CSM – *Triage Cases, Troubleshooting steps identification*
 - And more...

The image displays two screenshots of the AI Agent interface. The top screenshot shows the 'Manage Global LLMs' page under 'Settings'. It features a dropdown menu labeled 'Provider *' with 'Now LLM Generic' selected. Below this is a section titled 'Large Language Model (LLMs)' with the sub-instruction 'Select the LLM you want to use for all agentic workflows and AI agents created in AI Agent Studio.' The bottom screenshot shows the 'Now Assist' virtual agent interface. It includes a header with icons for 'New Chat', 'Chats', 'Support', and 'Settings'. A message from the AI agent says 'Hi, how can I help you? I'm an AI-powered virtual assistant that can handle work-related questions and requests.' A user message 'Just now what's the status of my incident?' is shown, followed by a list of tasks: 'Calling get incidents', 'Figuring out next steps', 'Executing agent IT Ticket Agent', and 'Calling get incidents'. At the bottom, a note says 'Some answers generated by AI. Be sure to check for accuracy.'

Additional Resources

- Visit **Now Learning** for the Learning Patch on Now Assist AI Agents
- Visit our **Now Assist Community Forum** for more tips and best practices – <https://sn.works/ai>
- ServiceNow Documentation – <https://servicenow.com/docs>
- Blog: *Best practices for prompt engineering with the OpenAI API*

Thank you for participating in the AI Agent lab. **Before you go, please fill out the post-lab survey on your mobile app!** Also, take 2 minutes to provide our Product Team with feedback on AI Agents using the QR code below. Your input helps us continue providing engaging content, including hands-on exercises.



Thank you

servicenow®

servicenow[®]
knowledge25