

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



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

## CCL1054

WiFi - K25Learning  
PW - Training@K25

Lab guidebook

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

Student Instance Reservation  
Page

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

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# Two speakers



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# 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

WHY

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.

## AI AGENT ORCHESTRATOR

HOW

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

## AI AGENT

WHO

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.

## TOOLS

WHAT

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

# 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.*

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## 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*

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## 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.**

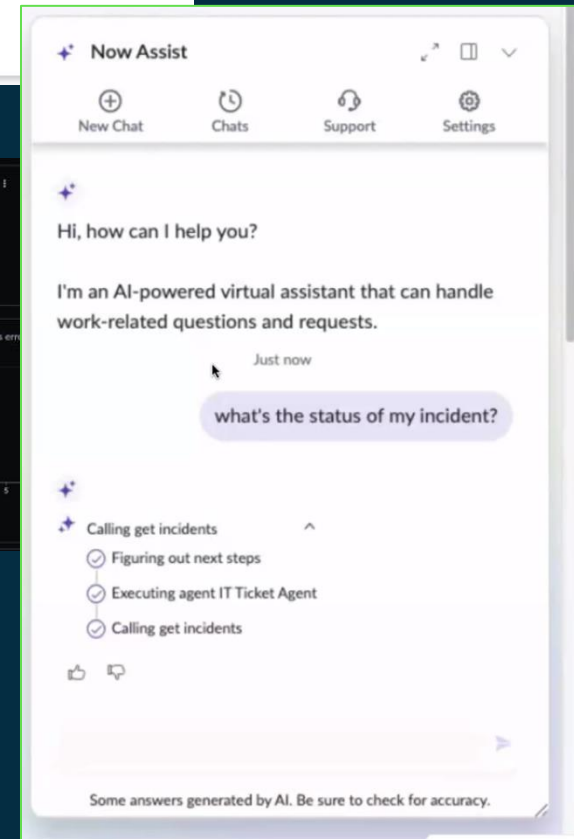
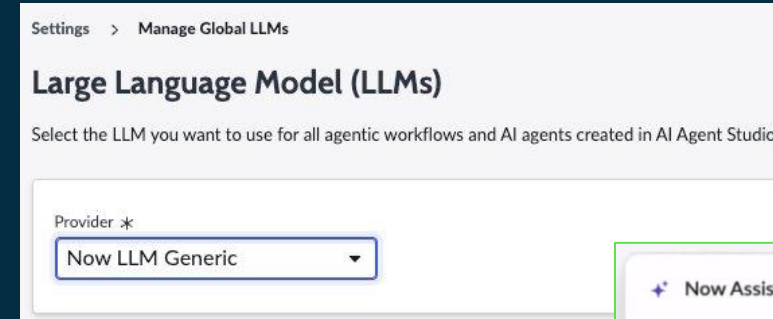
- Check agent proficiency and prompts
- Check the Execution Plan and Task tables [sn\_aia\_execution\_plan], [sn\_aia\_execution\_task] - see tasks and statuses, compare proficiency to Objective



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...



# 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

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