

Exercise 5-2: Web Search Tool

Objective

Add a web search capability to the AI Agent so it can find current information beyond the knowledge base.

Prerequisites

- **Exercise 5-1** completed (Calculator tool connected)

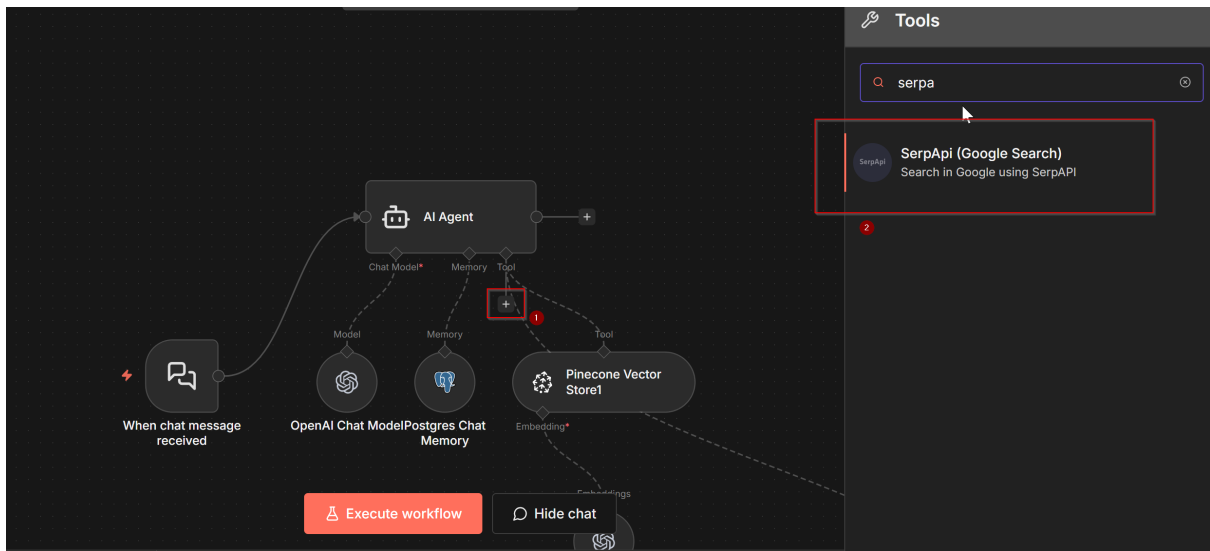
n8n Nodes

- **SerpApi** – performs web searches (requires API key)

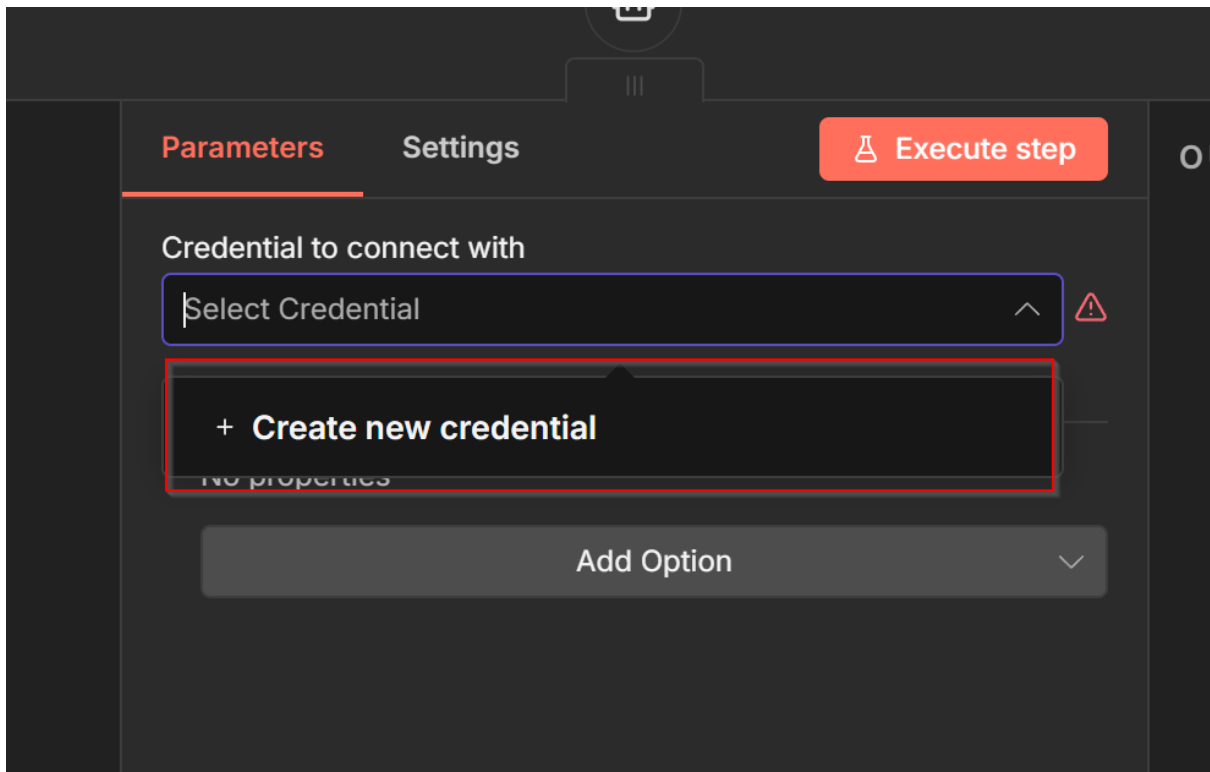
Setup

Add the Search Tool

1. Add a **SerpApi** node to your workflow
2. Connect it to the **AI Agent** as a tool



1. Configure the **SerpApi credentials** (API key provided by instructor)



SerpAPI account 112

Save

Connection

Sharing

Details

Need help filling out these fields? [Open docs](#)

API Key *

Allowed HTTP Request Domains

All

Enterprise plan users can pull in credentials from external vaults. [More info](#)

Update the System Prompt

Add the following **TOOLS** section to your system prompt in the AI Agent node:

TOOLS:

- Use web search for current news, recent announcements, and information not covered in

the annual report

- Always prioritize the knowledge base over web search for annual report data

- When using web search results, mention that the information comes from an external

source

Your system prompt should now have: SCOPE, SAFETY, ACCURACY, GROUNDING, and TOOLS.

Demo Prompts

- “What were the latest Changji announcements in 2026?”

This question requires current information that isn't in the annual report, so the agent should use web search.

Your Task

1. Test the demo prompt and confirm the agent uses the search tool
2. Ask a question that's in the knowledge base – does the agent correctly prioritize RAG over search?
3. Ask a question about recent events – does the agent use search and cite it as an external source?

What to Submit

1. The bot's response to the 2026 announcements question
2. Your observation: Did the agent follow the TOOLS instructions about prioritizing the knowledge base?