

Connect your tools and automate repetitive work — no code required. Visual workflow automation, open source.

What is n8n?

- **Visual workflow automation** — drag-and-drop nodes to build workflows, no coding needed.
- **Open source** — self-host for free, or use n8n Cloud for managed hosting.
- **400+ integrations** — connects to virtually any app, API, or database.
- **AI-native** — built-in nodes for Claude, GPT, embeddings, vector stores, and AI agents.

Core Structure: Trigger, Process, Action

Every n8n automation follows one simple pattern:

Step	Description
Trigger	Something happens — a form is submitted, a webhook fires, a schedule runs, or you click a button.
Process	Transform the data — filter, merge, edit fields, run AI, execute code.
Action	Send the output — email, Slack message, database write, API call.

Example: Someone fills a form → n8n extracts name + email → sends a welcome email via Gmail.

Trigger and Control Nodes

Node	What It Does
Manual Trigger	You click a button to run the workflow yourself.
Webhook	Receives data from any external app instantly.
Schedule Trigger	Runs your workflow at a set time (cron).
IF Node	Checks a condition, sends data down true or false path.
Switch	Routes data into multiple different paths (like IF but more options).
Split in Batches	Repeats an action for every item in a list, in groups.
Wait	Pauses the workflow for a set duration before continuing.

Data Nodes

Start With These

Node	What It Does
Edit Fields (Set)	Add, rename, or remove fields from your data.
Filter	Only keeps items that match a condition you set.
Merge	Combines data coming from two different branches.

Learn Next

Node	What It Does
Split Out	Takes one item with a list inside, splits it into many items.
Remove Duplicates	Clean up and control your data flow.
Code	Write custom JavaScript or Python when other nodes cannot do it.

AI Nodes

Node	What It Does
AI Agent	Reasons, decides, and uses tools to complete a task autonomously.
Basic LLM Chain	Send a prompt to an AI model, get a response back.
Chat Memory	Gives your AI short-term memory of the conversation.
Embeddings	Converts text into vectors for semantic search.
Vector Stores	Stores and retrieves vectors (Pinecone, Supabase, Chroma).
Tool Nodes	Give your AI abilities: search the web, run code, call an API.

JSON and Expressions

- **Every node outputs JSON** — you do not need to write it, just read it and grab the right field.
- **Fixed vs Expression** — use Fixed when the value is constant; use Expression `{{ }}` for live data from a previous node.
- `{{ $json.email }}` — grabs the email field from the current node's data.
- `{{ $json.first_name }}` — grabs the first name field.
- `{{ $now }}` — fetches the current date and time.

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