

Simple Mail Agent with n8n + OpenAI + Gmail

Overview

This project showcases an **AI-driven email automation workflow** built in **n8n**, integrating **OpenAI's GPT-4** and **Gmail API**.

The system acts as a **personal email agent** that can receive chat prompts, generate context-aware professional emails, and send them automatically — all with perfect grammar, punctuation, and formatting.

Workflow Logic

1. Trigger – Chat Input

- The workflow starts when a chat message is received through the n8n interface.
- The user provides key details such as the email recipient, subject, and intent (e.g., follow-up, acknowledgment, request, etc.).

2. AI Agent (OpenAI + Memory + Gmail)

- **AI Role:** The system message defines the agent as a professional email writer responsible for crafting seamless, efficient, and grammatically flawless emails.
- **Chat Model:** Uses **OpenAI GPT-4 Mini** to compose natural, human-like responses.
- **Memory:** Maintains short-term conversation context for multi-turn interactions.
- **Tool Integration:** Connects directly to **Gmail** to send the generated message without manual intervention.

3. Email Sending (Gmail Node)

- The AI output is automatically mapped to:
 - **To** → Recipient email address
 - **Subject** → AI-generated subject line
 - **Message** → Fully formatted email body
 - The email is then sent via the connected Gmail account using OAuth2 authentication.
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Key Features

- **AI-Composed Emails:** Automatically writes polished, natural-sounding emails.
 - **Personalization:** Adapts tone and greeting based on recipient and context.
 - **Memory Buffer:** Retains short conversation context for smoother multi-step dialogue.
 - **No Manual Drafting:** Instantly sends AI-generated messages directly from Gmail.
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Tech Stack

- **n8n** – Workflow automation and orchestration
 - **OpenAI GPT-4** – Natural language generation for email composition
 - **Gmail API** – Secure email delivery with OAuth2 authentication
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Use Cases

- Automated business correspondence
 - Internal or client communication assistant
 - Productivity tools for freelancers or support teams
 - Context-aware AI email drafting in chat environments
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Outcome

The **Simple Mail Agent** streamlines daily email communication by combining **OpenAI's natural language capabilities** with **n8n's automation** and **Gmail's delivery**, resulting in a lightweight yet highly effective AI communication assistant.