# **Product Document: Intelligent RAG Chatbot with Gmail & Drive Integration**

## **Problem Statement**

Knowledge workers and researchers often struggle with fragmented workflows. They need to:

* Search across personal and organizational files for quick insights.
* Communicate findings through email, often drafting repetitive responses.
* Manage information from multiple channels (chat, voice, files, email).

Today, these tasks require switching between tools like Google Drive, chat platforms, and Gmail leading to context switching, lost productivity, and delays in decision-making.

## **Our Approach (Built on n8n)**

We designed an **AI-driven personal assistant workflow** powered by **n8n, OpenAI, and Google integrations**. This system creates a unified, automated environment for knowledge retrieval and communication.

### **Key Capabilities**

1. **Conversational Chatbot**
   * Users interact via text or voice.
   * AI agent (GPT-powered) responds contextually, with memory stored in Postgres.
2. **Ask Questions on Files & Research**
   * Documents and research data are ingested into a **PGVector store**.
   * RAG (Retrieval Augmented Generation) enables precise, context-aware answers.
3. **Google Drive Ingestion**
   * Direct ingestion of files from Google Drive.
   * Indexed and embedded for retrieval, enabling personal knowledge search.
4. **Personalized Retrieval (RAG)**
   * Vector embeddings ensure user-specific document retrieval.
   * Supports accurate responses without hallucinations.
5. **Email Automation with Gmail**
   * Draft emails with AI assistance.
   * Send real emails via Gmail.
   * Retrieve existing threads or unread messages for seamless context.

### **Why n8n?**

* **Orchestration:** n8n connects AI models, vector databases, and Gmail in one workflow.
* **Scalability:** PostgreSQL + PGVector store scales with growing data.
* **Flexibility:** Supports both voice and text input with OpenAI transcription.

## **Business Value**

* **Productivity:** Reduces time wasted switching between apps.
* **Knowledge Accessibility:** Turns scattered documents into an intelligent, searchable knowledge base.
* **Communication Efficiency:** Automates repetitive email drafting and sending.
* **Personalized Intelligence:** Every user gets a private, secure assistant tuned to their data.

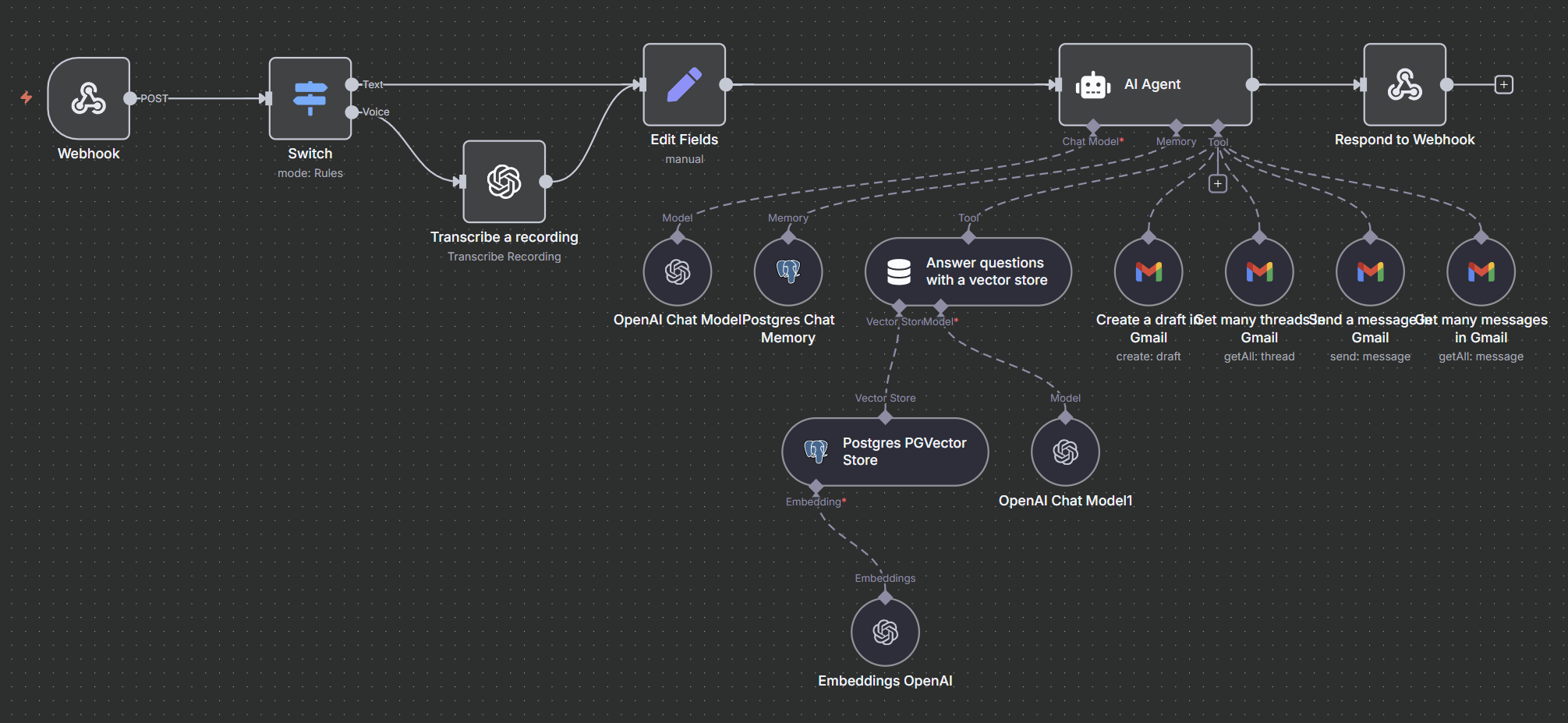
Links:

**Frontend:** [**https://athena-n8n.vercel.app/**](https://athena-n8n.vercel.app/)

Login details:  
Id : [demo@gmail.com](mailto:demo@gmail.com)  
Pass: demo@123

**n8n:** [**https://n8n.showcasehq.xyz/workflow/6VD75oXYSvd6kx10**](https://n8n.showcasehq.xyz/workflow/6VD75oXYSvd6kx10)

n8n flows:  
  
RAG CHATBOT:



Ingation from google drive:

