Cross-Application

Image RAG Assistant.

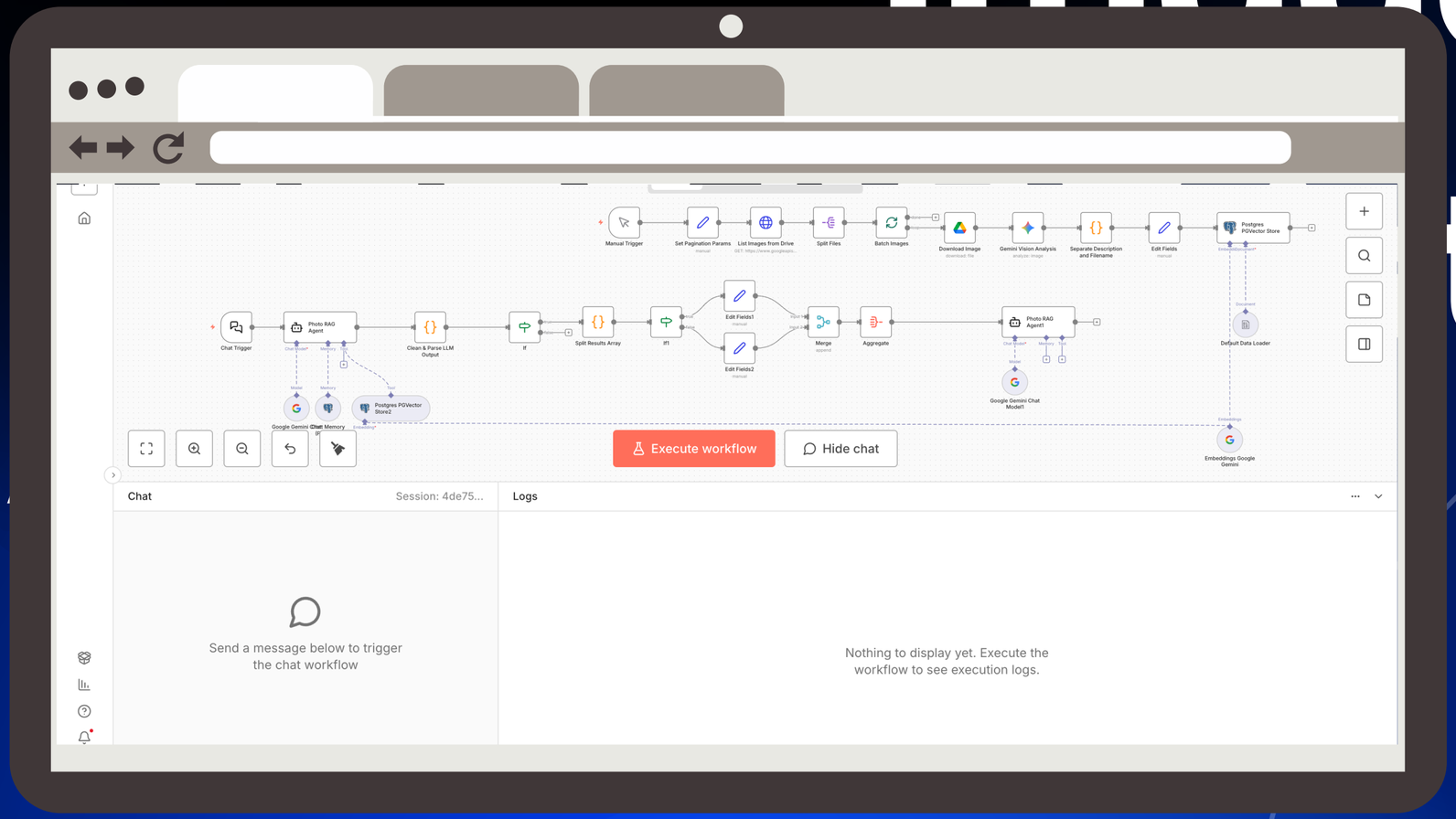
n8n

Google Drive

Gemini

Image RAG Assistant

Image RAG tant.



n8n

Google Drive

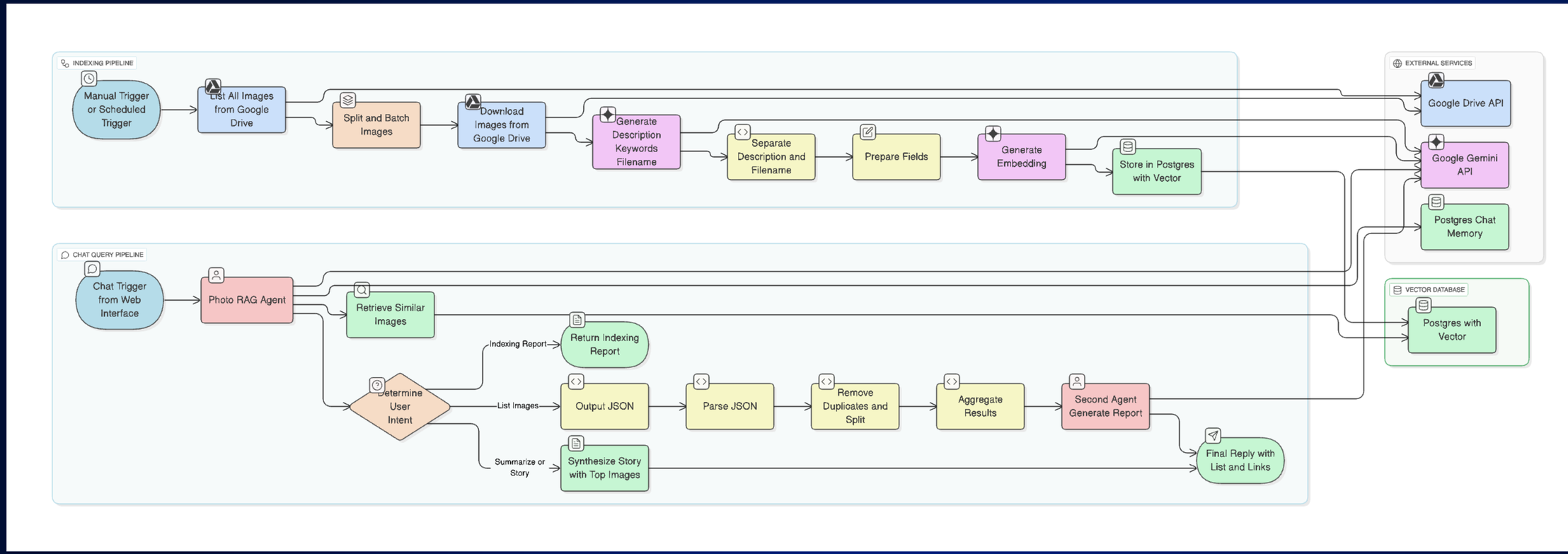
Gemini

Why we need an image-retrieval assistant

Goal: “Retrieve and analyze personal images via chat”

Problem & Goal

System Overview



Tech Stack

PostgreSQL & pgvector

Stores vectors for quick retrieval

Google Drive

Storage for all user images

n8n

Automates workflows for efficiency

Gemini

(2.5 Flash)

Generates image embeddings effectively

Docker

Docker deployment

Project Structure

```
image-rag-assistant/
├── docker-compose.yml          # Configuration to launch Google Drive, n8n, Gemini, and DB services.
├── .env.example                # Template for API keys and credentials (NOT INCLUDE REAL KEYS).
├── README.md                   # Project documentation.
├── architecturediagram.pdf     # System architecture diagram (REQUIRED for submission).
├── .gitignore                  # Specifies files to be ignored by Git (e.g., .env file).
├── n8n-workflows/
└── Google Drive Image RAG Indexer + Chat (13)_Final.json  # The core RAG workflow.
```

How It Works

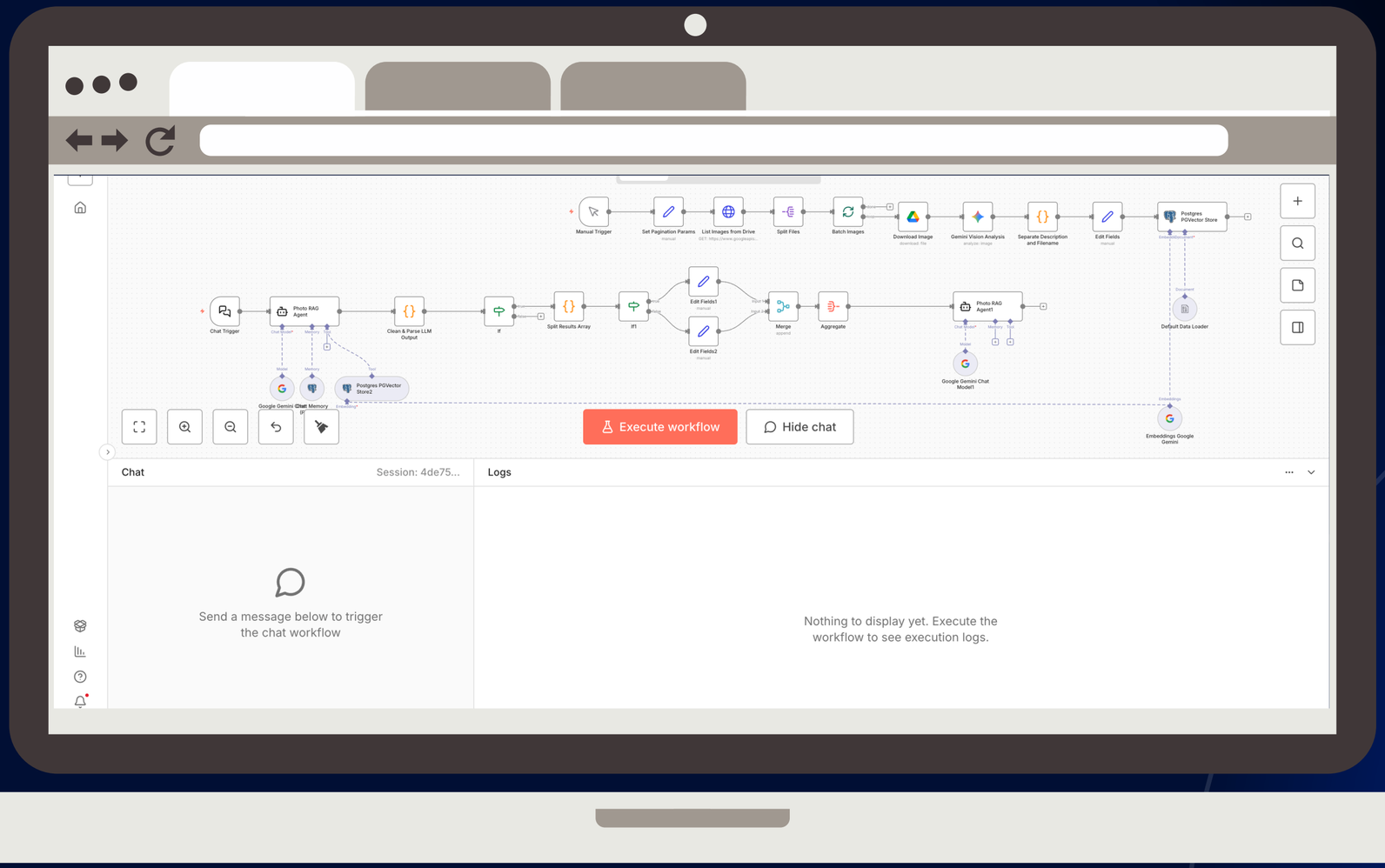
Google Drive
Indexing images from Google Drive

n8n
Automates workflows for efficiency

Gemini
Embedding via Gemini

pgvector
Storing embeddings in pgvector

Chat UI
Chat search interface



Initialize environment & run Docker

Setup .env

Run Docker

Import n8n workflow

Summary

Streamlined Image Retrieval Process

- Revolutionizing how we access personal images
- Enhance efficiency and organization in image management

STREAMLINED IMAGE RETRIEVAL PROCESS

Closing

Thank You.

Q & A