



Spring School
AI For Impact

AI Email Assistant with Personalized Style Learning

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Introduction & Objectives

Context: Professionals spend ~28% of their work week managing email. Current AI tools generate generic responses that lack the user's personal voice.

Objectives:

1. **Personalization:** Move beyond generic prompts by analyzing historical email metrics to clone the user's style.
2. **Operational Efficiency:** Automate draft generation to save time.
3. **Security & Compliance:** A "Human in the loop" architecture where AI never sends emails autonomously.

Main Contribution

- **Style Engine:** Automated extraction of linguistic metrics from Gmail to Sheets.
- **Privacy-First:** Immutable and encrypted logs, no private data retention.
- **Adaptive Drafting:** Groq AI generates personalized drafts that mimic your exact tone.

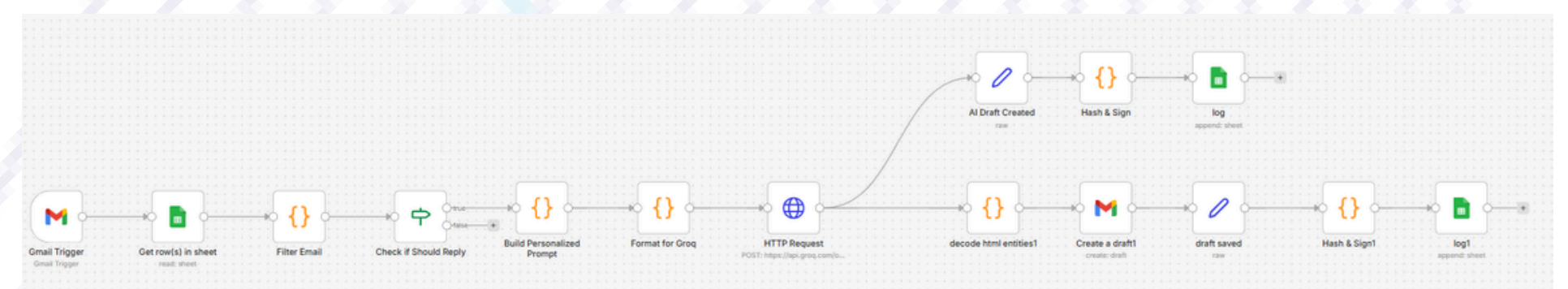
Conclusion & Perspectives

- **Conclusion:** We built a scalable, user-adaptive AI assistant. It is low-code, secure, and deployable today.
- **Future Work:** Integration of RAG (company data), Multilingual Support, and a Feedback Loop for continuous learning from user edits.

Bibliography

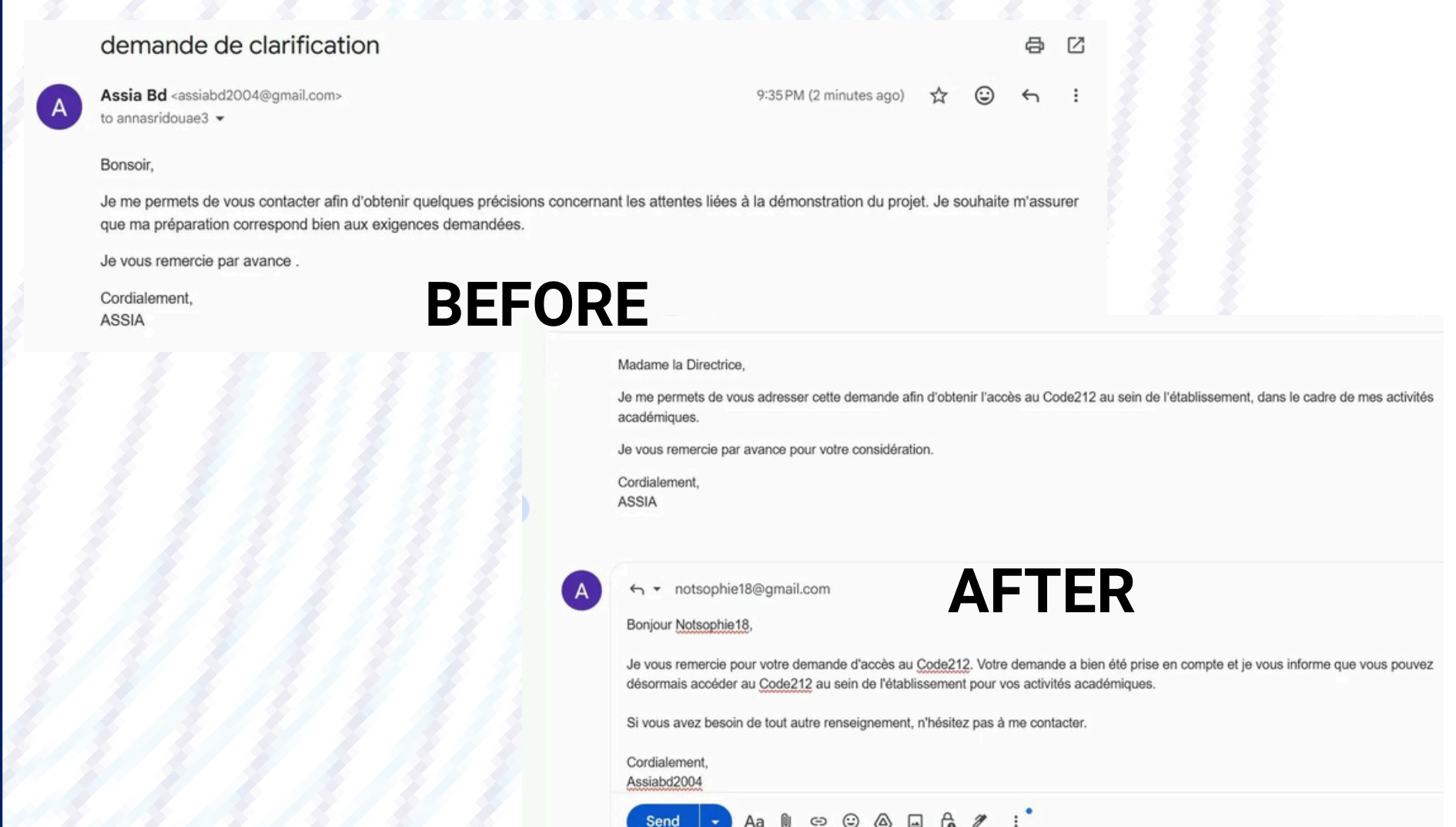
<https://docs.n8n.io/>;<https://console.groq.com/docs/api-reference>;<https://console.groq.com/docs/overview>

Methodology, Analysis & Results



Workflow 1: Style Extraction: Fetches sent emails → NLP Analysis → Updates Style Profile.

Workflow 2: Draft Generation: New Email Trigger → Context Filtering → Groq API Inference (with Style Profile) → Save as Draft in Gmail.



Performance Metrics:

1. **Latency:** Draft generation < 2 seconds
2. **Style Consistency:** >90% similarity to user's historical tone.
3. **Safety:** 100% human validation rate (zero risk of AI hallucinations being sent).



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