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.

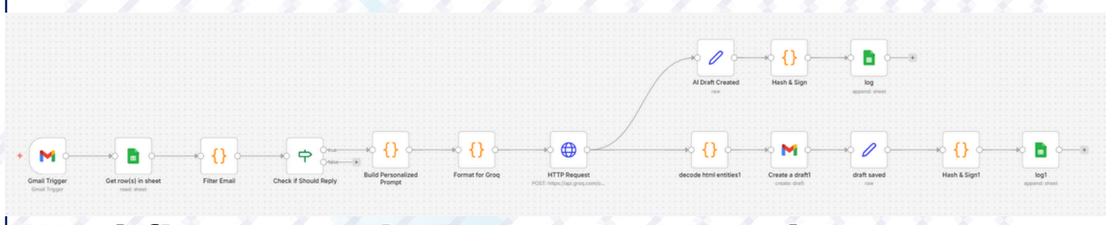
Objectives:

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.**

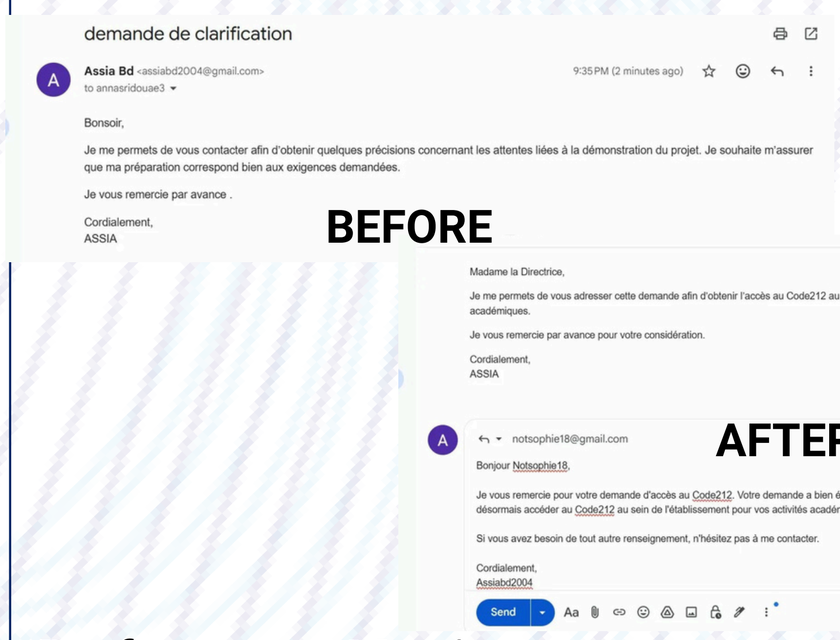
Main Contribution

- **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.**

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).**

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**

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