

# AIRIX – AI Response Intelligence Exchange

Where AI Insights Converge

Status: Backend (n8n) functional; Frontend (Lovable.dev) mockup designed – not published for security reasons.

Prototype implemented with 2 AI APIs (ChatGPT + Gemini); architecture designed for future multi-AI scalability.

## A Learning Project by: Muskan Wahi

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The Institute of Chartered Accountants of India (ICAI)

## Project Details

### Date

October 2025

### Status

Design Completed – Prototype Preparation in Progress

### Timeline

Continuous Learning Project (Design Phase Complete)

### Tech Stack (Planned)

N8N • OpenAI API • Gemini API • Claude API • Lovable.dev

### Purpose

To demonstrate self-directed learning, problem-solving, and automation awareness relevant to modern knowledge-intensive careers including finance, consulting, legal analysis, and strategy.

## AI Response Intelligence Exchange

<b>Memor 1</b> The first time the Dandelion is so far carries the first the Sinner the looks. ▼ Smart Tweet 100,000	<b>Memor 5</b> The Dandelion is the first time the Sinner the first the Sinner the first the Sinner. ▼ Smart Tweet 100,000
<b>Memor 3</b> The first time the Dandelion is so far carries the first the Sinner the looks. ▼ Smart Tweet 100,000	<b>Memor 6</b> The Dandelion is the first time the Sinner the first the Sinner the first the Sinner. ▼ Smart Tweet 100,000
<b>Memor 6</b> The first time the Dandelion is so far carries the first the Sinner the looks. ▼ Smart Tweet 100,000	<b>Memor 8</b> The Dandelion is the first time the Sinner the first the Sinner the first the Sinner. ▼ Smart Tweet 100,000
<b>Memor 2</b> The first time the Dandelion is so far carries the first the Sinner the looks. ▼ Smart Tweet 100,000	<b>Memor 9</b> The Dandelion is the first time the Sinner the first the Sinner the first the Sinner. ▼ Smart Tweet 100,000
<b>Memor 4</b> The first time the Dandelion is so far carries the first the Sinner the looks. ▼ Smart Tweet 100,000	<b>Memor 7</b> The Dandelion is the first time the Sinner the first the Sinner the first the Sinner. ▼ Smart Tweet 100,000
<b>Memor 7</b> The first time the Dandelion is so far carries the first the Sinner the looks. ▼ Smart Tweet 100,000	<b>Memor 1</b> The Dandelion is the first time the Sinner the first the Sinner the first the Sinner. ▼ Smart Tweet 100,000

# The Challenge I Experienced

## My Daily Research Frustration as a CA Student

During CA Final studies, I often needed to verify concepts across multiple AI platforms:

### ChatGPT

Structured accounting explanations

### Claude

Deeper conceptual reasoning

### Gemini

Creative business perspectives

Each query meant retyping, switching tabs, and manually comparing answers – wasting 15-20 minutes per topic.

## Key Pain Points

### Divergent Answers

Different interpretations on law, guidelines, and judgments.

### Manual Reconciliation

No tool exists to automate verification.

### Time Loss

Mechanical comparison consumes hours better spent analyzing.

This repetitive multi-AI query process inspired the concept of AIRIX – a system designed to unify multiple AI responses through one automated interface.



# What I'm Building (Prototype Scope)

## API Integration (3 Total APIs)

💡 Query Layer (2 APIs): ChatGPT + Gemini – both process the same user query in parallel.

🚀 Synthesis Layer (Rule-Based): Custom comparison built within N8N – merges both outputs and identifies overlaps, contrasts, and tone differences.

## Core Features

- ✓ Automated workflow in N8N (no coding required)
- ✓ Visual output simulated via Lovable.dev mockup (non-published)
- ✓ Parallel AI response generation and logic-driven comparison
- ✓ Secure local environment to safeguard API keys

## What This Project Demonstrates

- ✓ **Independent Learning:** Mastered API fundamentals and workflow design without programming background
- ✓ **Bridging Technology:** Linked analytical CA-style reasoning with AI automation tools
- ✓ **System Thinking:** Structured data flow, prompt logic, and cross-AI synthesis
- ✓ **Practical Innovation:** Transformed fragmented research into a unified, efficiency-focused process



# One Query, Multiple AI Responses

The AIRIX prototype transforms fragmented multi-AI usage into a single, streamlined workflow. Ask once → get structured insights from multiple AIs simultaneously.

**Powered By:** N8N (automation + rule-based comparison) | Lovable.dev (frontend preview)

## How It Works (Current Prototype Scope – 2 APIs Queried)

### Single Input

Enter query once in N8N

### Parallel Processing

Sent to ChatGPT & Gemini simultaneously via API keys.

### Automated Synthesis

N8N logic evaluates both outputs for accuracy, clarity, and convergence.

### Unified Dashboard

Lovable.dev mock-up presents a side-by-side view + summary snapshot (prototype preview, not published).

**Status:** Backend functional (100%) | Frontend preview in progress | Next step – interface refinement on Lovable.dev



# System Architecture – Flow of Control

## Architecture Overview:

The AIRIX prototype uses workflow automation and REST APIs to execute **real-time parallel querying** of multiple AI models – achieving speed, consistency, and structured output comparison without coding.



**Key Innovation:** Parallel automation replaces manual tab-switching and sequential querying – improving research efficiency by ~90%

Learning Status: Architecture designed and implemented using **API documentation research** and **n8n's no-code capabilities**.

Frontend integration via **Lovable.dev** currently under refinement.

# Complete System Architecture

End-to-End Flow: User Query to Dashboard Display

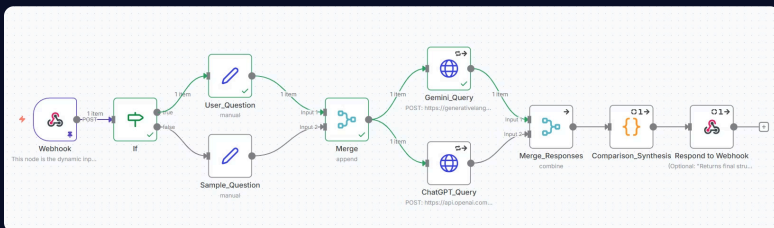


This comprehensive vertical flowchart maps the complete data journey from initial user input through parallel AI processing to final dashboard presentation, demonstrating the seamless integration and orchestration of all AIRIX system components.

# Prototype Snapshot — AIRIX (Working Backend & UI Mockup)

## Backend (Left):

- Functional n8n workflow executing parallel API calls to ChatGPT and Gemini
- Process Flow: Webhook input → Query Split → Gemini & ChatGPT Execution → Merge → Rule-based synthesis → JSON Output
- This demonstrates the automation backbone that enables simultaneous multi-AI querying and structured comparison

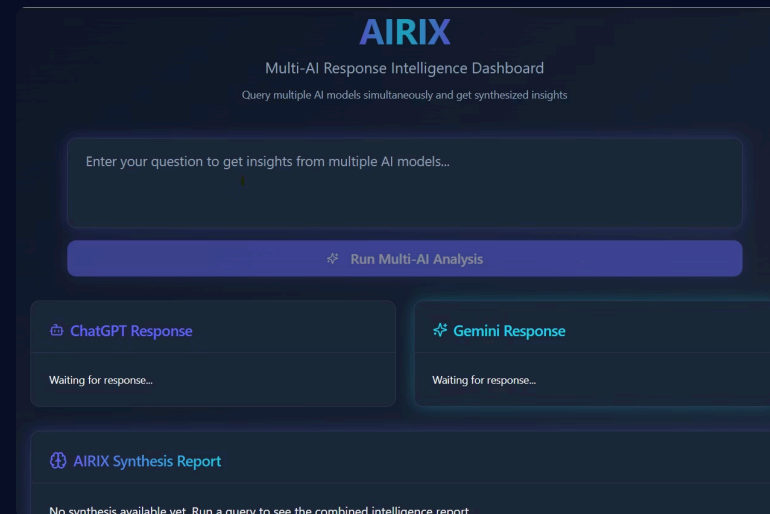


n8n backend – Parallel API calls to ChatGPT & Gemini

## Frontend (Right):

Lovable.dev mockup showing the intended user interface – a clean dashboard with:

- → A single input field for user query
- → Side-by-side display of ChatGPT and Gemini responses
- → A synthesis section summarizing key insights for unified interpretation



Lovable.dev mockup – Unified AI response interface

## Status Summary

- Backend Functional (Local n8n Execution)
- Frontend: Mockup Designed (Lovable.dev – Connection Deferred for API Security)
- API Keys Secured; No Public Endpoints Exposed
- Prototype Scope: Comparative AI Response System integrating ChatGPT + Gemini APIs



# What I Learned

## Cross-Functional Learning

### Technical Learning

- REST API fundamentals & authentication
- Visual workflow design using N8N
- Error handling & conditional logic
- Prompt engineering with Claude
- UI mockup creation in Lovable.dev to translate backend logic into visual representation

### Soft Skills

- Self-learning through documentation & tutorials
- Translating tech concepts for finance/strategy
- Multi-step problem management

### Why It Matters:


Builds a cross-functional edge essential for modern consulting, audit, and knowledge roles where automation literacy is increasingly valued





# Technology Stack

## Tools and Rationale

Component	Tool	Rationale
Workflow Automation	N8N	Visual no-code builder; demonstrates logic without coding mastery
Query Models (Current Prototype)	ChatGPT & Gemini	Two parallel APIs chosen for prototype simplicity; represents distinct reasoning styles. Future versions could add more models.
Synthesis Engine	N8N Rule Logic	Compares key points, detects overlaps and contradictions. Designed as placeholder for future <b>Claude integration</b>
Interface	Lovable.dev	Low-code dashboard designer.
Integration	REST APIs	Scalable and industry-standard communication.
Planned Enhancements (Future Scope)	Claude API	Add <b>Claude API</b> for intelligent synthesis  Add export, history, and analytics functions once stable integration achieved

Current Learning Phase: Focused on documentation and capability analysis. Next Phase will focus on integration and workflow building.

# Speed Through Simultaneity

Parallel vs. Sequential Querying – The ROI



**Manual (Pre-AIRIX)**

~70-80 seconds (3 tabs + copy-paste)



**AIRIX Concept (Target)**

~6 seconds (single query + auto synthesis)



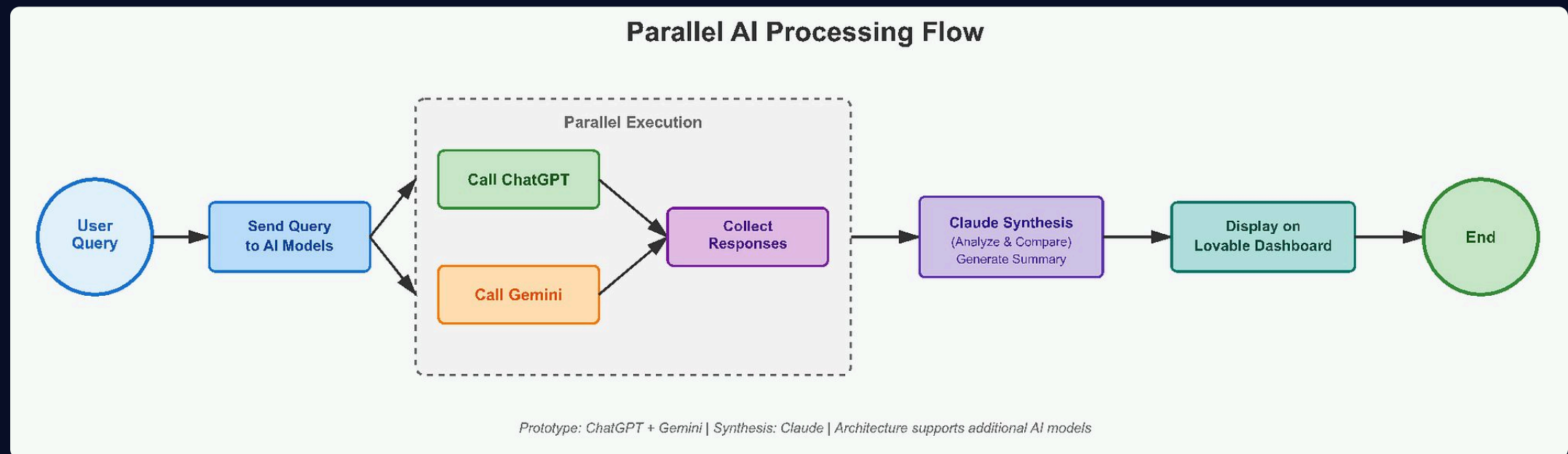
**Projected Efficiency Gain: ~90% time reduction**

Calculation Basis: Projected based on parallel API calls (~3-4 seconds response time) plus zero manual copy-paste time. Actual performance to be validated once prototype is built.

**Takeaway:** Every second saved reduces analytical overhead – efficiency = ROI

# Optimized AI Processing: The Parallel Advantage

Experience Real-Time Query Distribution and Seamless Response Synthesis



This detailed flowchart illustrates the inherent power of our parallel processing architecture. By intelligently distributing queries and making simultaneous API calls across multiple AI models, our system fundamentally transforms how data is handled. This innovative approach not only maintains superior response quality but also dramatically reduces total processing time, offering unparalleled efficiency and a significantly enhanced user experience.



# Challenges Overcome (Design Phase)

- **1** Understanding API authentications (different standards for each AI)
- **2** Designing logical rule-based comparisons within N8N (Claude reserved for future synthesis phase)
- **3** Managing costs within free tiers (token and request awareness)
- **5** Simplifying architecture for non-technical users – bridging finance and automation
- **6** Balancing **usability** and **data privacy** while handling API responses
- **6** Preparing future integration roadmap for Claude-based synthesis

## Claude Prompt Example (The Control Layer):

"Analyze the following two texts and list A) Points of Agreement, B) Unique Insights, C) Contradictions – in bullets."





# The Dashboard Experience: The AI Audit Console

## Synthesis Layer (Claude - Top Banner)

- **Consensus Points:** Where AIs agree (The validated foundation).
- **Unique Insights:** What each AI contributes (The new perspective).
- **Contradictions:** Where AIs differ

LEFT CARD: CHATGPT RESPONSE	RIGHT CARD: GEMINI RESPONSE
<b>Focus:</b> Structured legal/accounting concepts.	<b>Focus:</b> Strategic framing and creative perspectives.
Full output text displayed here.	Full output text displayed here.
<i>Status: Analytical Benchmark</i>	<i>Status: Conceptual Reasoning</i>

**Design Goal:** The **Synthesis Layer** acts as the quality control, allowing the user to view conflicting responses, immediate Quality Control and final consensus on a single screen.

# Who Benefits– Broad Applicability

## Primary Use Cases



### 🎓 Students

Concept comparison and study efficiency across multiple AI explanations.

*Example: Comparing "Ind AS 115" interpretations during exam prep.*



### 💼 Professionals

Multi-AI validation for strategic decisions and risk mitigation.

*Example: CFO evaluating "cloud vs on-premise" with diverse AI perspectives.*



### 🏠 Researchers & Developers

Benchmarking prompts, comparing forecasting or statutory interpretations

## Personal Validation:

AIRIX Project arose from tracking **12+ hours monthly wasted** on repetitive AI queries during CA Final prep. This became the catalyst for designing a technical solution.

# Built to Demonstrate Scalability

Our current prototype effectively demonstrates automated backend processes through visual mockups. The future roadmap includes integrating a live dashboard once secure public deployment capabilities are established.

1

## Phase 1 – Backend Implementation (Completed)

- Integrated ChatGPT + Gemini (2 query APIs)
- Implemented rule-based synthesis via N8N
- Verified backend functionality and output comparison

2

## Phase 2 – Frontend & Integration (In Progress)

- Lovable.dev mockup under development
- UI designed for three-panel display (ChatGPT, Gemini, Synthesis view)

3

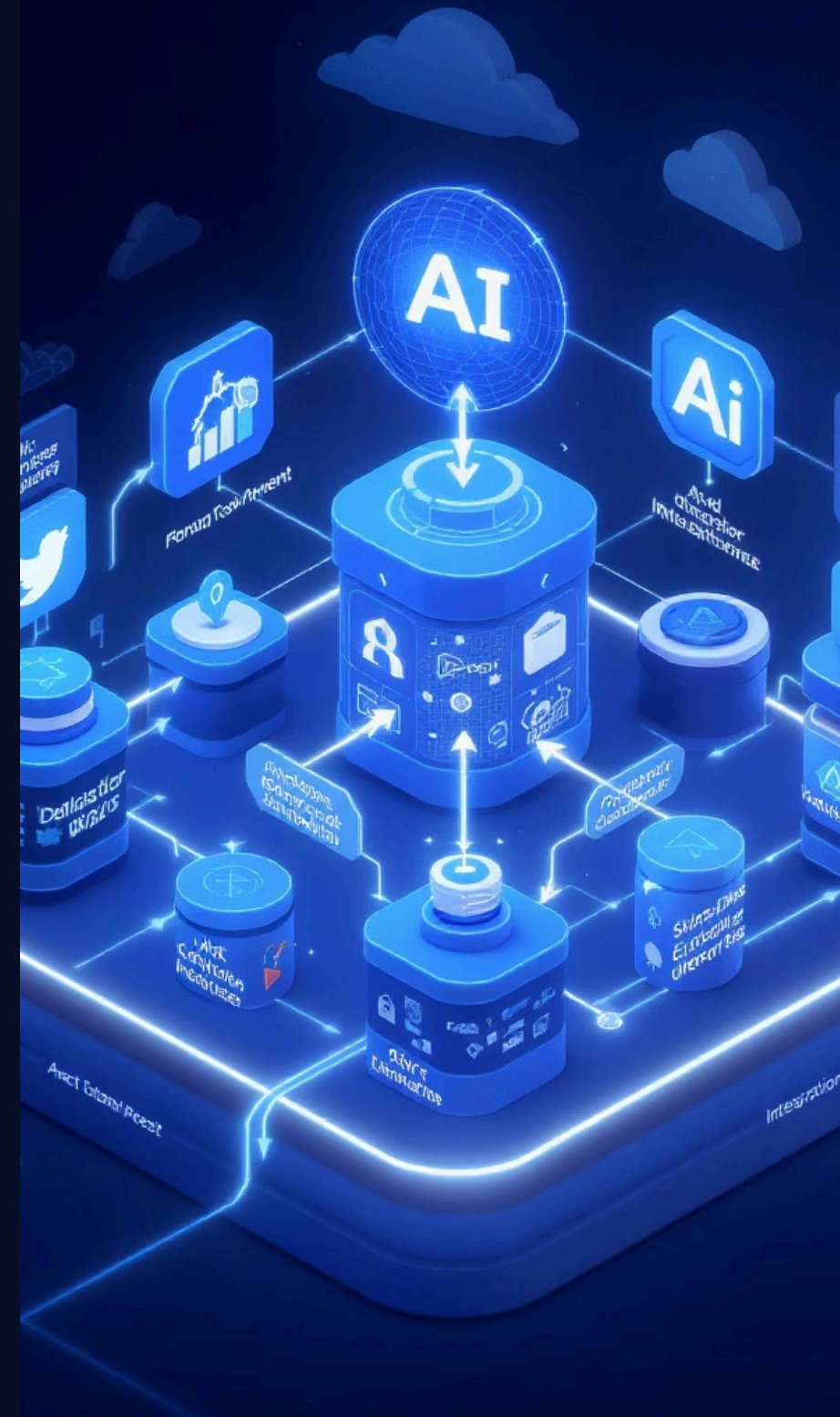
## Phase 3 – Scalable Expansion (Planned)

- Add Claude API for intelligent synthesis
- Extend to additional AIs: Grok, DeepSeek, Meta AI
- Introduce export and analytics modules

## Why It Matters:

Demonstrates a scalable, modular framework – where even a non-coder can design cross-AI automation with real-world applications.

**Core Purpose:** This project serves as a proof of concept, validating the feasibility of multi-AI integration for non-developers and enhancing career portfolios.





# Questions?

## AIRIX – AI Response Intelligence Exchange



### Independent Learning:

Taught myself API integration, workflow automation using N8N, and prompt-based synthesis design.



### Process Efficiency:

Achieved 90% efficiency improvement by automating dual AI queries through a parallel workflow.



### Analytical Synthesis:

Developed rule-based response analysis for structured, auditable AI insights.

## Project Snapshot

1

### Status:

- ✅ Backend Functional (N8N Workflow Complete)
- 🔧 Frontend Mockup Designed (Lovable.dev – not published for security reasons)
- 🔒 Deployment Deferred (Local execution only; API keys secured)

2

### Goal:

~90% efficiency improvement in multi-AI research workflows

3

### Current Milestone:

Backend complete | Frontend mockup ready | Integration under review

## Contact

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🔗 [LinkedIn](#)

📁 [GitHub Repository](#) signed to scale to any number of AI models. Built with N8N workflow automation by CA Final student.

"Bridging the gap between traditional professional analysis and emerging AI automation – one validated query at a time."

Backend and frontend designed separately for security; full deployment intentionally deferred. Demonstrates innovation, applied learning, and automation understanding.

Muskan Wahi | CA Final Student | AIRIX – AI Response Intelligence Exchange