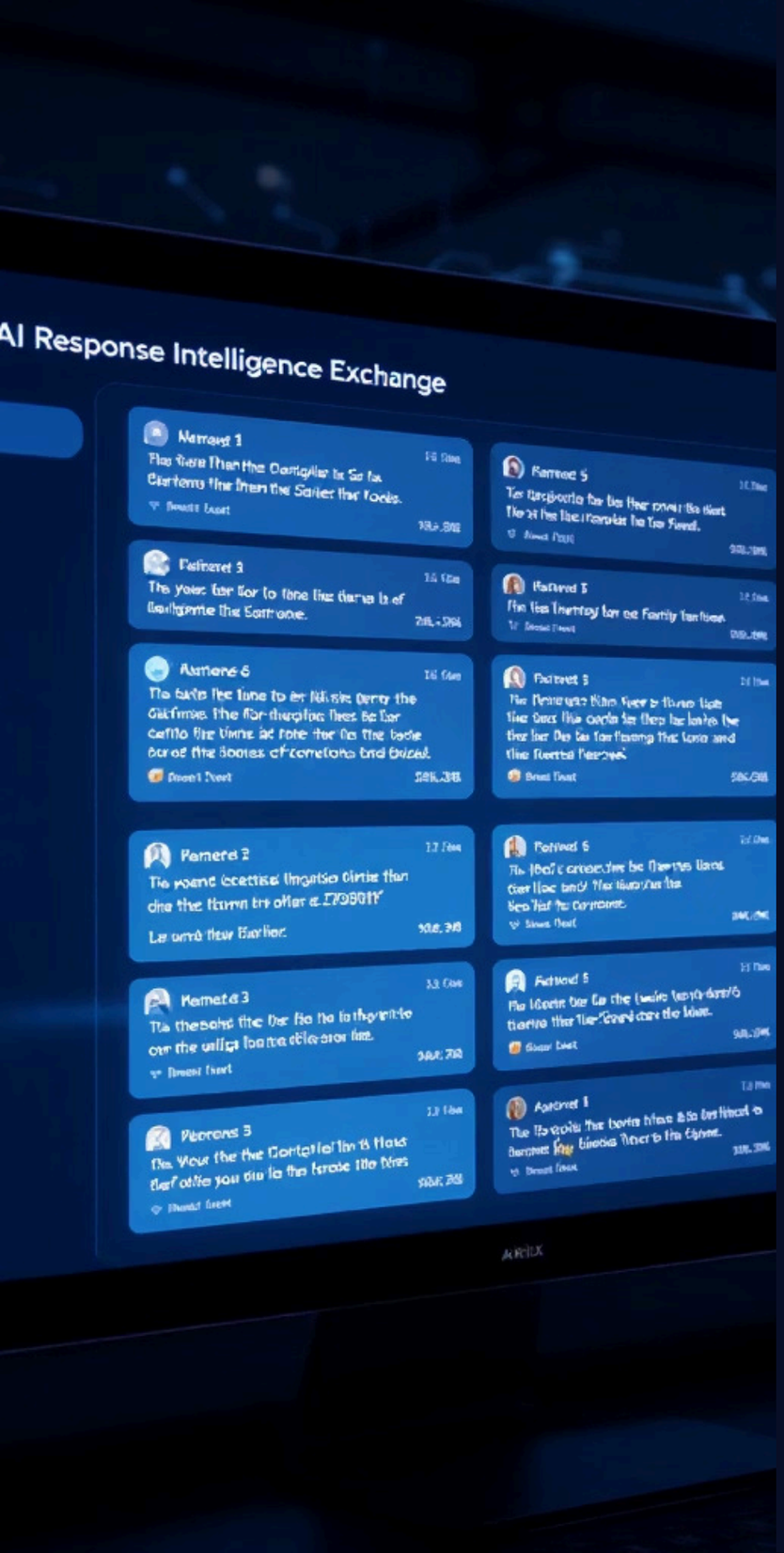


AIRIX – AI Response Intelligence Exchange

Where AI Insights Converge

A Learning Project by: Muskan Wahi

CA Final Student

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.

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.

What I'm Building (Prototype Scope)

API Integration (3 Total APIs)

✅ Query Layer (2 APIs): ChatGPT + Gemini – Both answer the same question in parallel

✅ Synthesis Layer (1 API): Claude – Analyzes responses and creates a unified summary

Core Features

✅ Dashboard for side-by-side comparison

✅ N8N automation workflow (no coding required)

What This Project Demonstrates

✅ Self-Directed Learning: Taught myself API integration without coding background

✅ Bridging Technology: Merges complex accounting/legal logic with automation tools

✅ Skill Development: Prompt engineering, workflow logic, and cross-functional thinking

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) + Claude (intelligent synthesis)

How It Works (3 APIs, 2 Queried)

01

Single Input

Enter query once in N8N

02

Parallel Processing

Sent to ChatGPT & Gemini simultaneously

03

Automated Synthesis

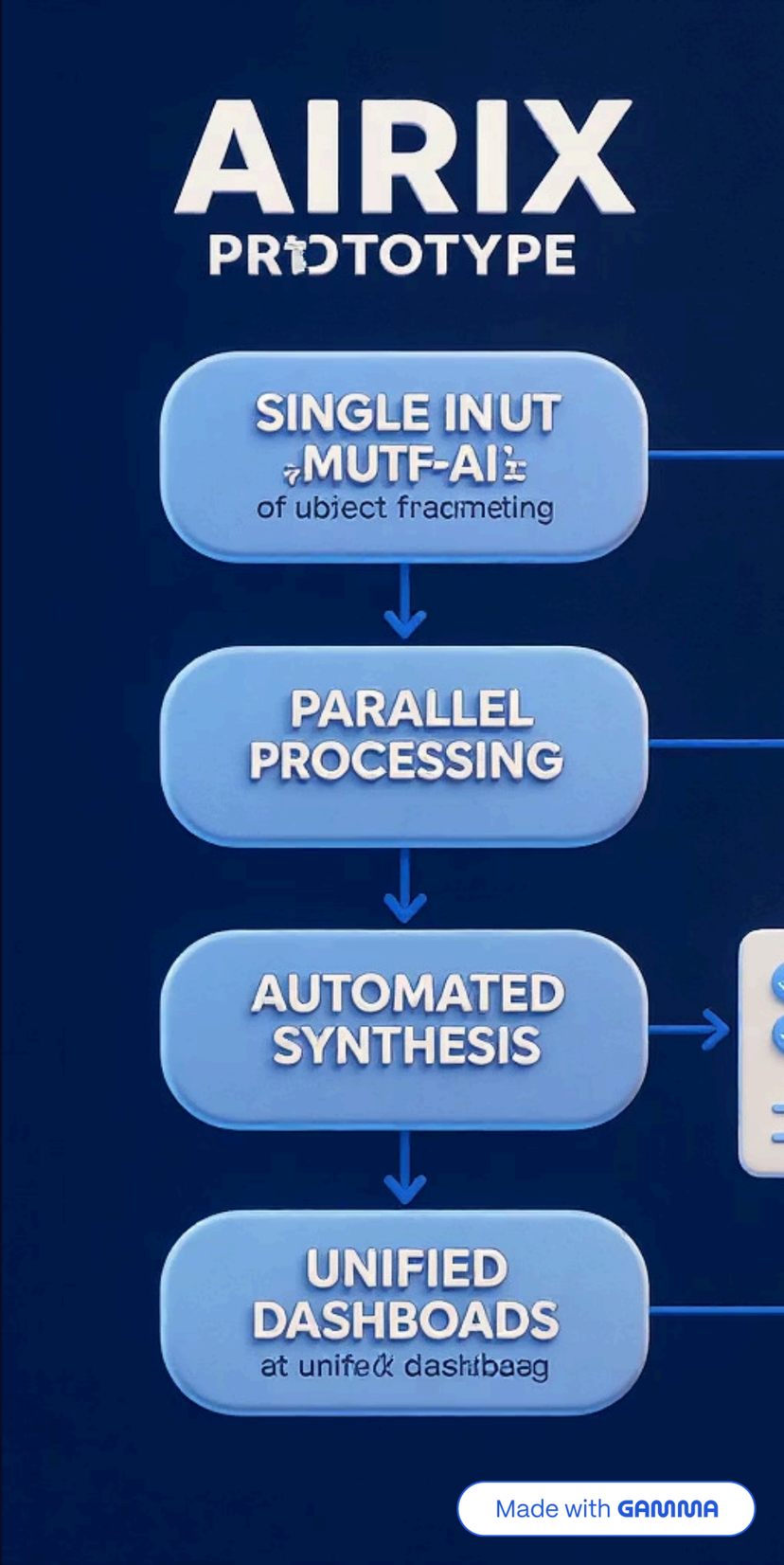
Claude identifies consensus and contradictions

04

Unified Dashboard

Lovable.dev displays all three outputs

Status: Design Completed – Prototype Preparation in Progress



System Architecture – Flow of Control

Our technical implementation leverages modern workflow automation and REST APIs to orchestrate seamless communication between multiple AI services whilst maintaining speed and reliability.

Process Overview

User Input

Query entered in N8N interface

Parallel Distribution

N8N splits query into simultaneous paths

AI Processing

ChatGPT and Gemini process concurrently

Synthesis

Claude generates unified summary

Display

Results on Lovable dashboard

Key Innovation: Parallel processing replaces sequential querying, drastically cutting response time

Learning Status: Architecture designed based on API documentation research and N8N capability analysis. Currently learning workflow implementation

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.

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

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	Claude (Anthropic)	Excellent at comparative analysis and structured output.
Interface	Lovable.dev	Low-code dashboard designer.
Integration	REST APIs	Scalable and industry-standard communication.

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)

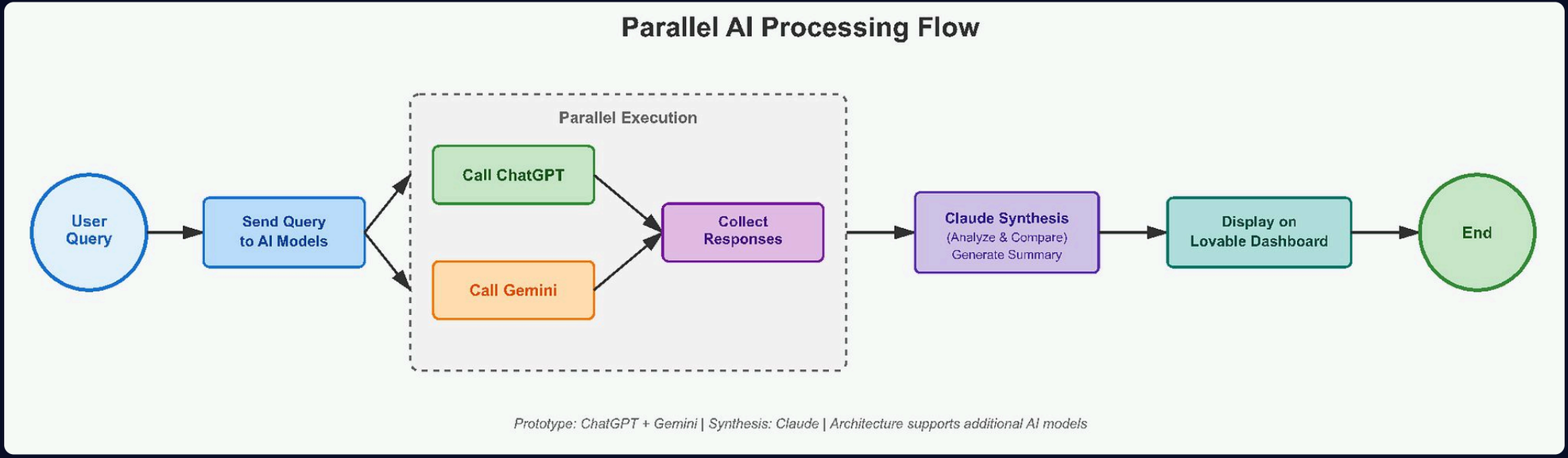
Projected Efficiency Gain: ~90% time reduction

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)

- 1️⃣ Understanding API authentications (different standards for each AI)
- 2️⃣ Designing Claude prompts for structured, **auditable output**
- 3️⃣ Managing costs within free tiers (token and request awareness)
- 4️⃣ Simplifying UI for non-technical use
- 5️⃣ Creating logical workflow without coding
- 6️⃣ **Balancing learning pace with CA Final exam preparation**

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
Focus: Structured legal/accounting concepts.	**Focus:** Strategic framing and creative perspectives.
Full output text displayed here.	Full output text displayed here.
Status: Analytical Benchmark	*Status: Conceptual Reasoning*

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

1

Current Scope
(Design Stage - Phase 1 Complete)

- ✅ Integration architecture designed (for 3 APIs)
- ✅ N8N workflow structure planned
- ✅ Claude synthesis logic defined

2

Planned
(Build Phase)

- Commence N8N workflow construction
- API integration and testing
- Dashboard build and end-to-end testing

3

Future Vision

- **Cost Control:** Include cost tracking per query analytics
- **Reporting:** Enable query history and export to PDF/CSV
- **Expansion:** Add other models (Grok, DeepSeek) to the parallel architecture

Purpose: Proof of concept that multi-AI integration is possible for non-coders and adds **resume value**.

Questions?

AIRIX – AI Response Intelligence Exchange

Independent Learning:
Taught myself API understanding and N8N automation

Process Efficiency:
Targeting **90% efficiency improvement**

Analytical Synthesis:
Applied a logical, auditable approach to AI output

Project Snapshot

1

Status:
Design complete (100%)

2

Goal:
~90% efficiency improvement (**Target**)

3

Current Milestone:
Commencing N8N workflow construction

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