

Vasudeva: AI Wisdom Guidance System

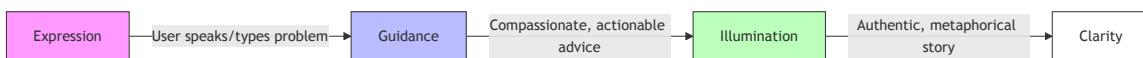
Project Whitepaper & Technical Interaction Design

Executive Summary

Vasudeva is a specialized Wisdom Guidance System designed to provide mental wellness support grounded in authentic sacred texts. Unlike generic AI models that often hallucinate or provide superficial advice, Vasudeva uses a rigorous RAG (Retrieval-Augmented Generation) architecture reinforced by a custom Evaluation System to verify Truth. It addresses the critical need for ethical, verifiable AI in sensitive domains.

User Journey: The "Digital Darshan"

From Confusion to Illumination in 3 Steps



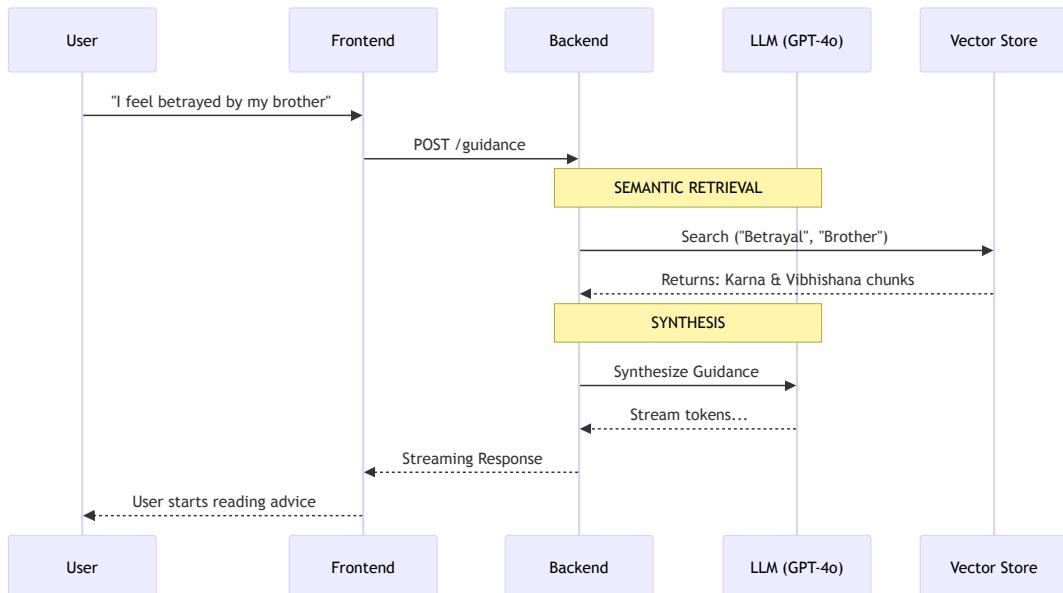
DEEP DIVE: The "Life of a Query"

What happens in the 3 seconds after you press 'Send'?

To ensure instant help while performing deep research, we split the process into two phases.

Phase 1: Immediate Guidance (0-3s)

Goal: Instant psychological relief and answer.

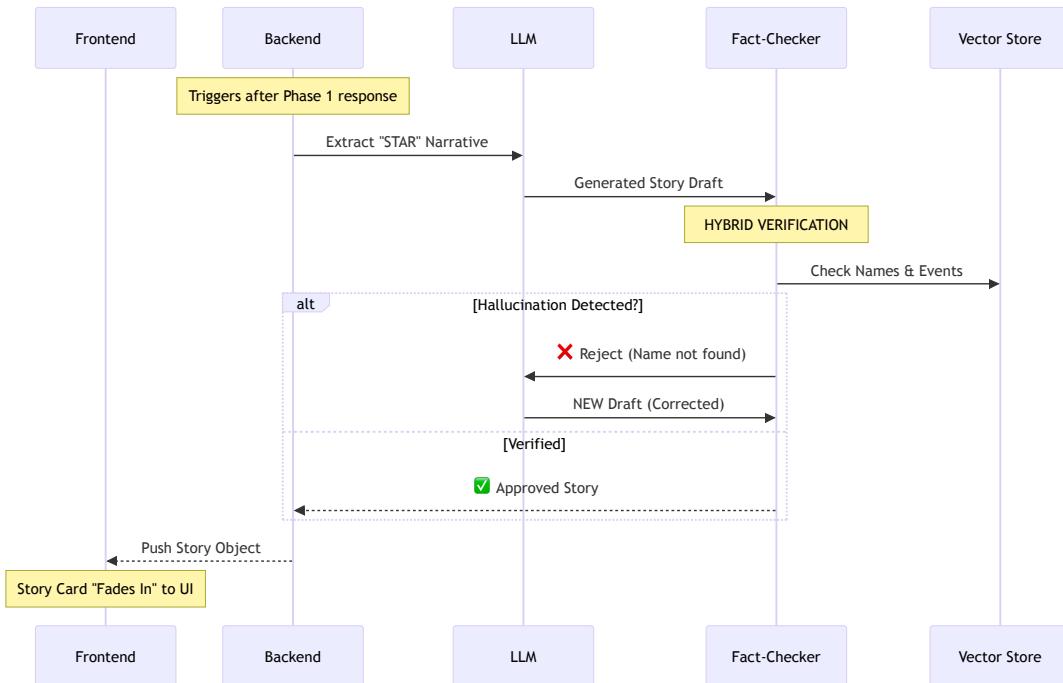


Detailed Process Description:

1. User Input: The user expresses a complex emotion.
2. Vector Embedding: The text is turned into a 1536-dimensional vector.
3. Semantic Search: ChromaDB returns relevant wisdom chunks.
4. Synthesis: LLM combines the query with retrieved passages.
5. Streaming Response: Tokens are streamed back, first word appears within ~800 ms.

Phase 2: Deep Background Processing

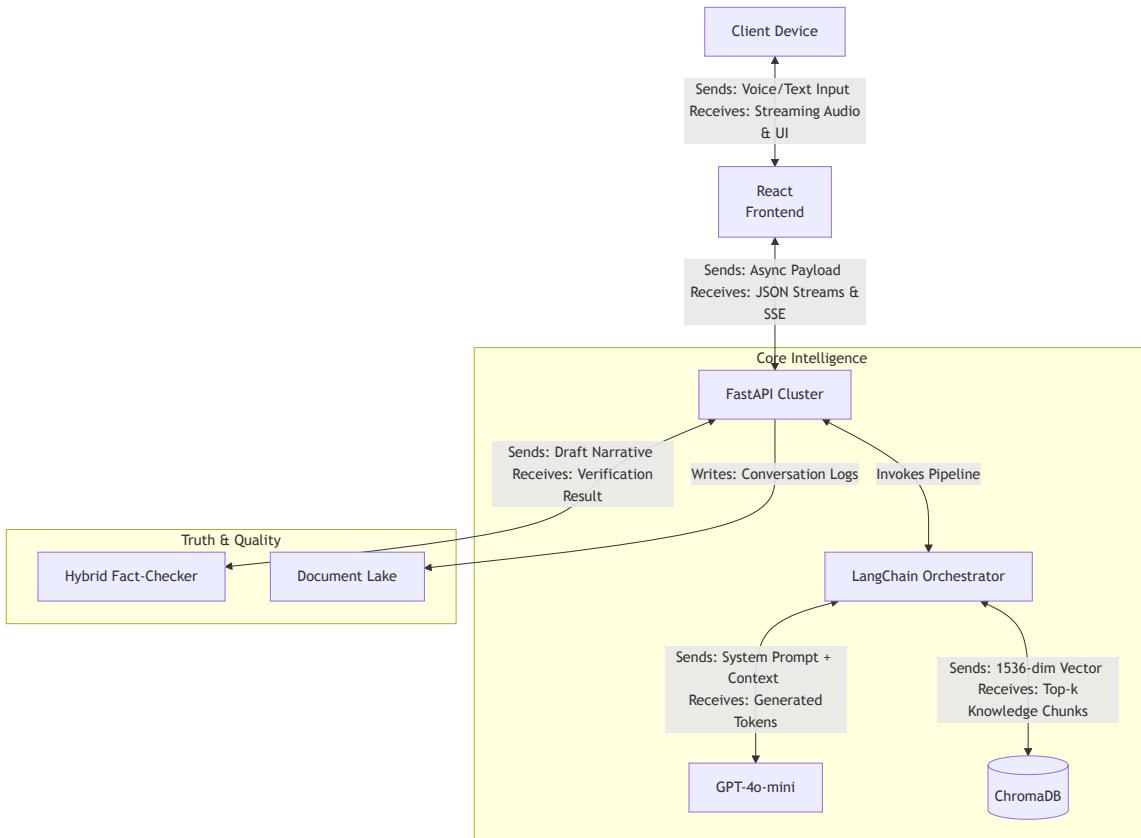
Goal: Verifiable Truth & Narrative Depth (Async).



Detailed Process Description:

1. Narrative Extraction: LLM finds a complete story matching the user's situation.
2. STAR Formatting: Story is forced into Situation-Task-Action-Result.
3. Critic Loop: Fact-Checker validates every entity against the source PDF.
4. Self-Correction: If a hallucination is found, the LLM regenerates.
5. Fade-In Delivery: Only verified stories reach the UI.

System Architecture

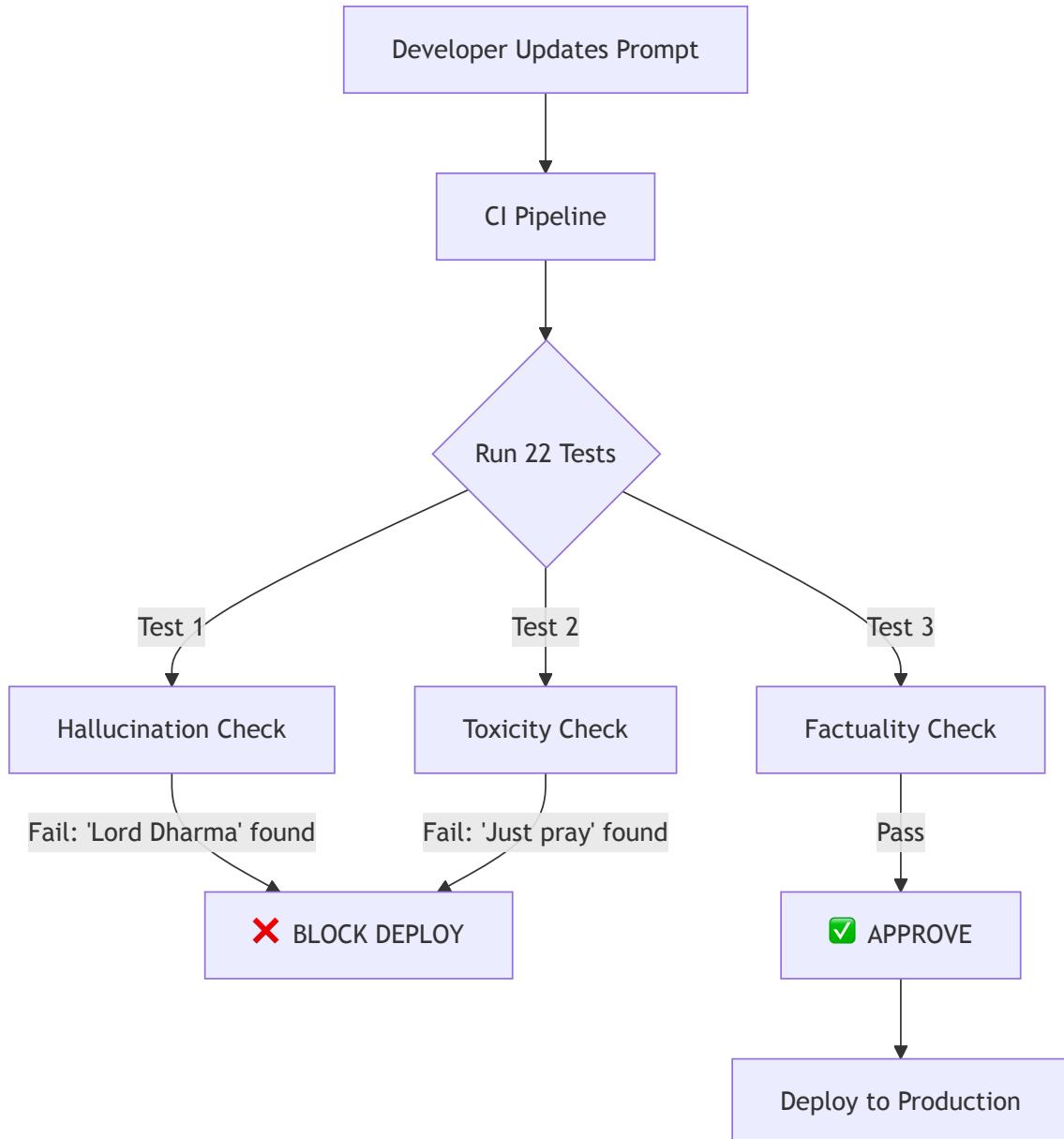


DEEP DIVE: The AI Evaluation System ("The Quality Gate")

Trust through Verification.

We have engineered a comprehensive Evaluation Suite consisting of 22 automated tests that run before any deployment. This measures Hallucinations, Toxicity, and Correctness.

5.1. Evals Logic Flow

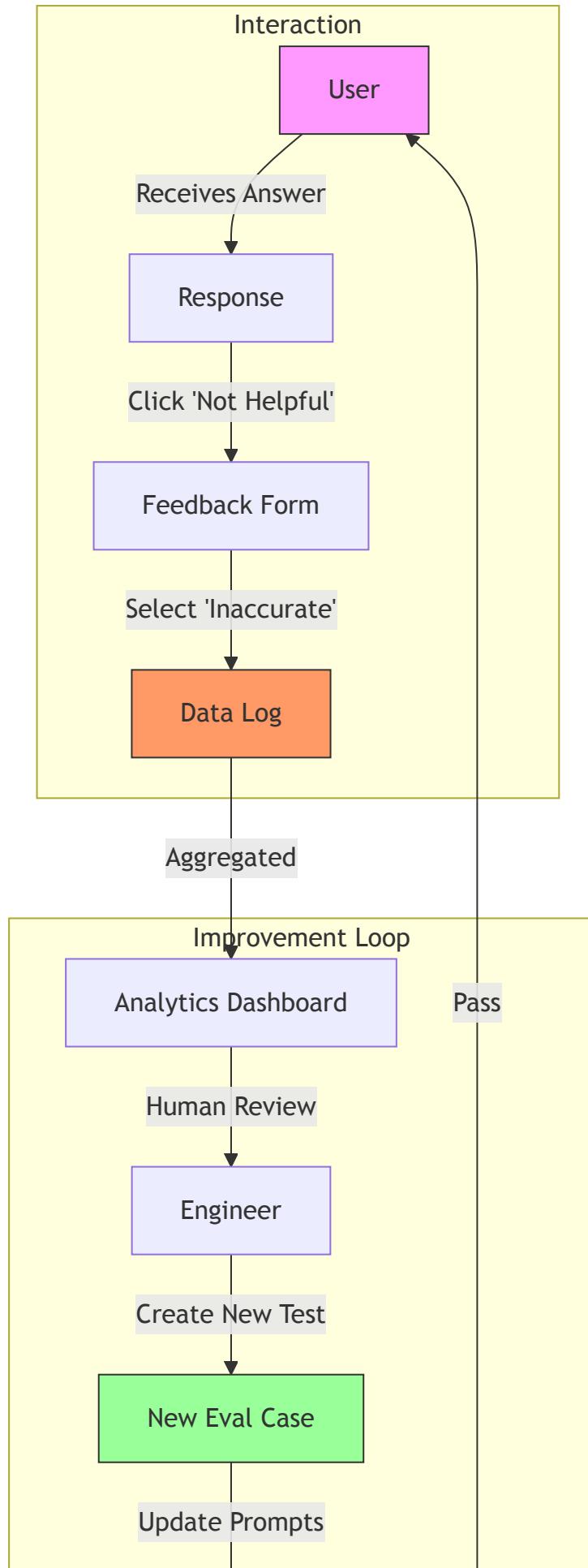


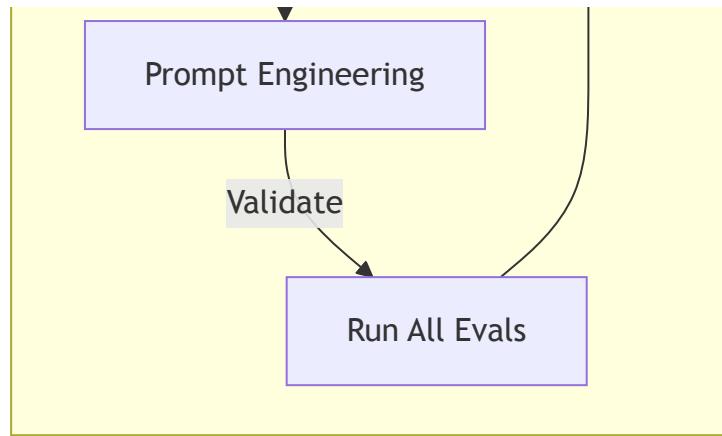
Detailed Process Description:

1. Trigger: A developer updates the system.
2. The CI/CD pipeline runs the suite of 22 tests.
3. Specific Checks: Hallucination, Toxicity, Factuality, etc.
4. Gate: Any failure blocks deployment; only 100 % pass proceeds.

The "Virtuous Cycle": How the System Evolves

Turning User Feedback into Permanent Intelligence.





Detailed Process Description:

1. The user flags a response as not helpful.
2. The system logs the conversation ID, context, and reason.
3. An engineer reviews the log and creates a new test case to prevent the error.
4. Prompt engineering and the test suite are updated.
5. The full eval suite validates the fix before the next release.

Tech Stack & Toolkit

Layer	Technology	Purpose
Frontend	React + Vite	Instant interactions, Skeleton loading states
Styling	Tailwind + Framer	"Glassmorphism" aesthetic, emotional animations
Backend	FastAPI	AsyncIO for handling parallel LLM requests
AI Logic	LangChain	Chain-of-Thought reasoning & retrieval orchestration
Memory	ChromaDB	Semantic search (understanding concepts vs keywords)
Intelligence	GPT-4o-mini	Low-latency reasoning engine
Quality	Custom Evals (Python)	Deterministic quality gates

Why Vasudeva? (Differentiation)

Generic Chatbot

Hallucinates to please user Self-Corrects before responding

"Black Box" reasoning

Traceable Sources (Book/Verses)

Static knowledge

Self-Healing via Feedback Loop

Generic tone

Curated Compassionate Persona

Vasudeva System

Summary for Board: Vasudeva is a Self-Correcting, Truth-Anchored Intelligence Platform. It leverages GenAI for accessibility but relies on architectural rigor for accuracy.