

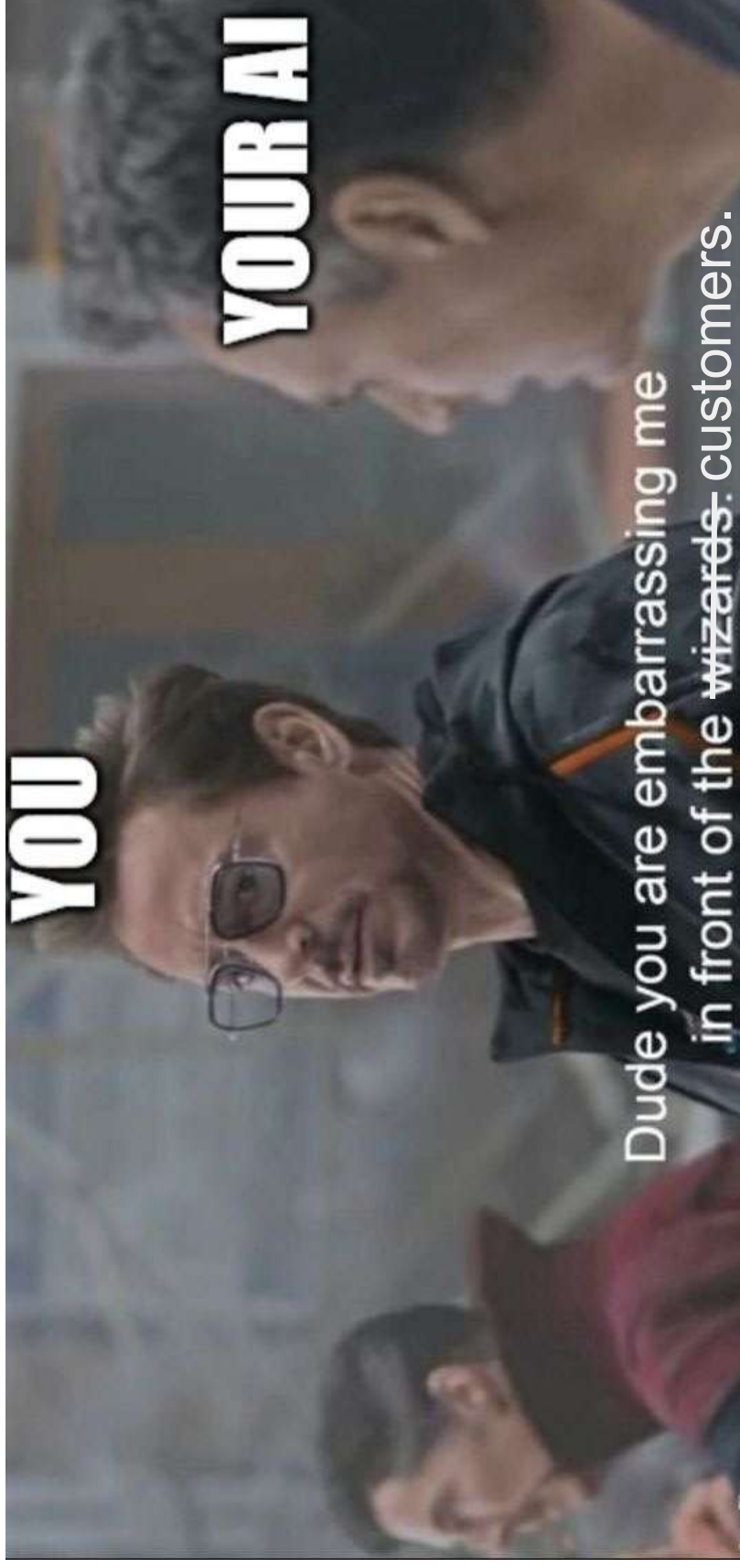
Temporal & AI | Determinism Challenges

“LLMs are not databases: they do not do precise, deterministic, predictable data retrieval, and it’s irrelevant to test them as though they could. But that’s not quite what we’re trying to do here - this is a rather more complex and interesting test...”

“OpenAI is asking the model a **probabilistic** question, not a **deterministic** question. But the answer to that question IS deterministic

- Benedict Evans, [The Deep Research Problem](#)

Temporal & AI | Determinism Challenges

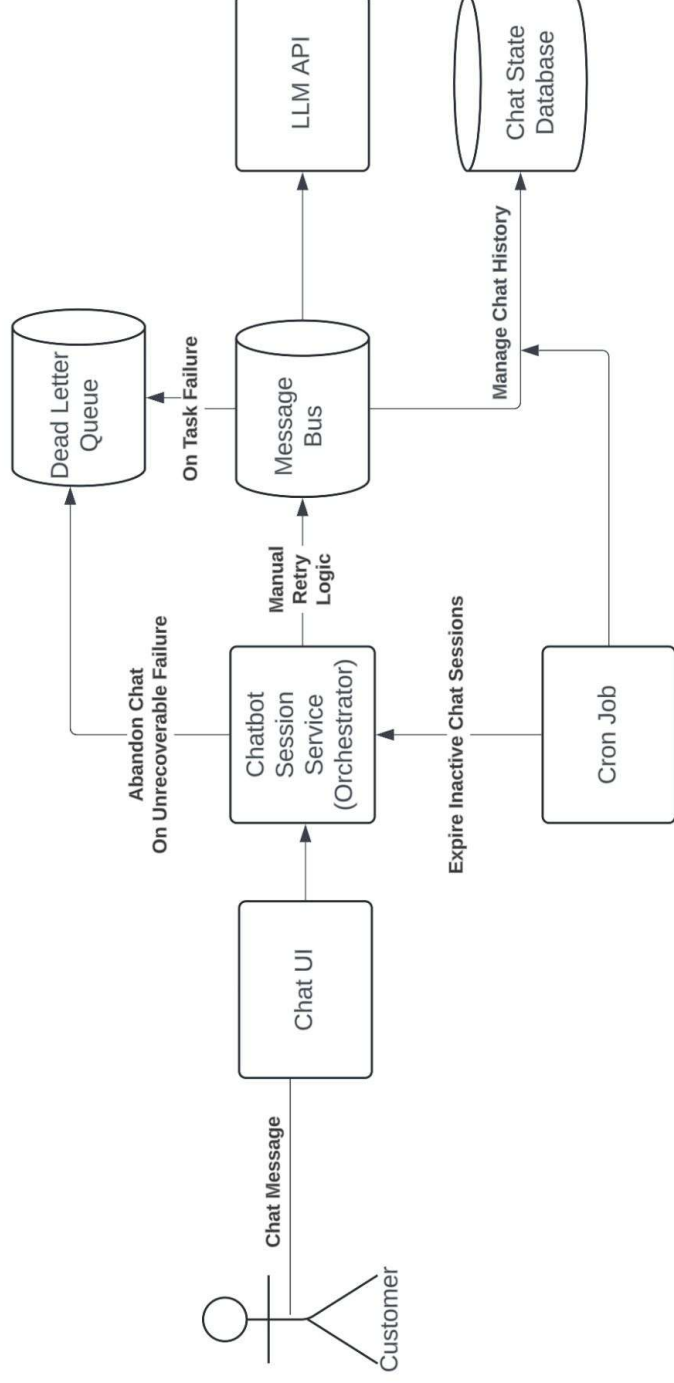


Temporal & AI | Scalability Challenges

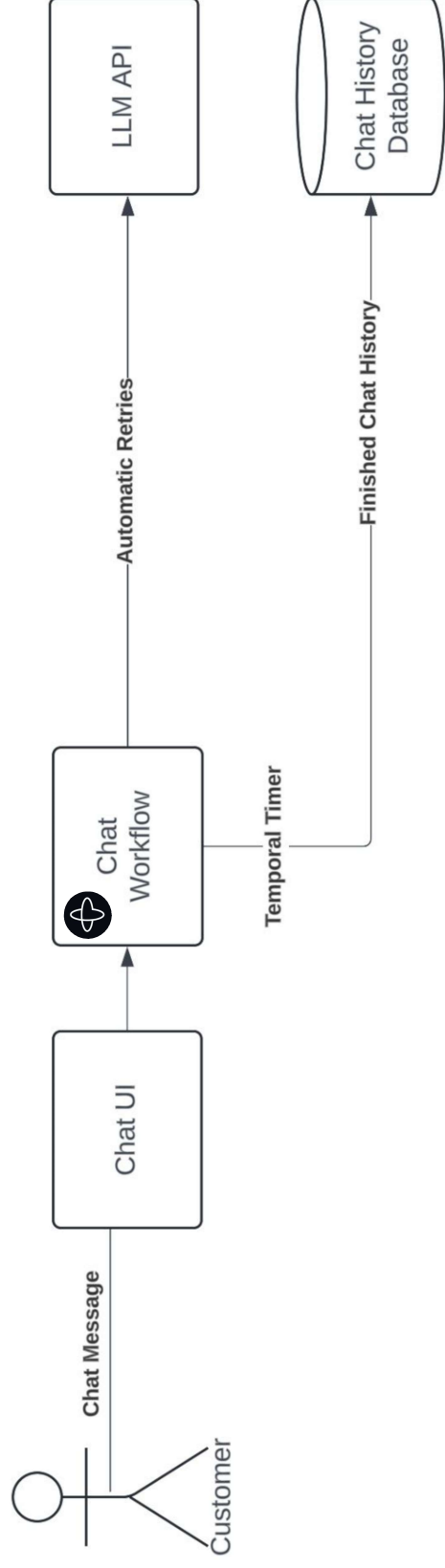
“I’ve helped lots of people build agents that can run on their laptop and do something cool. But the real challenge people struggle with is scaling it, making it durable, and getting to production.”

- Overheard from an AI Architect

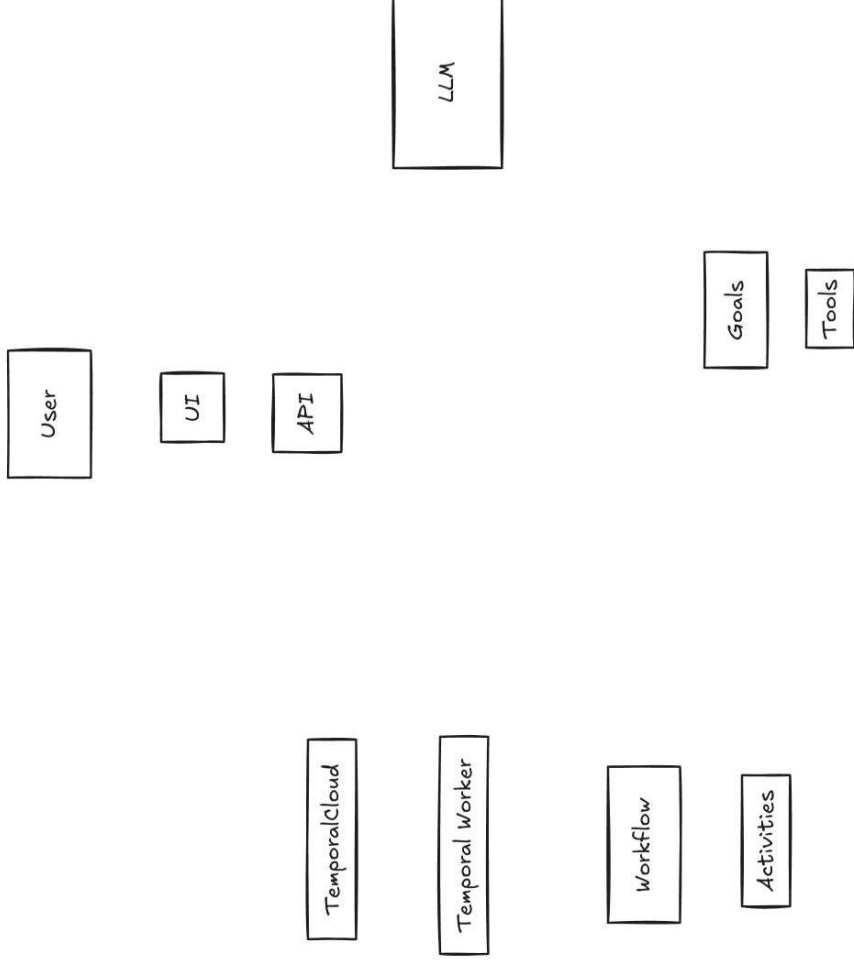
AI Agents | Architecture before Temporal



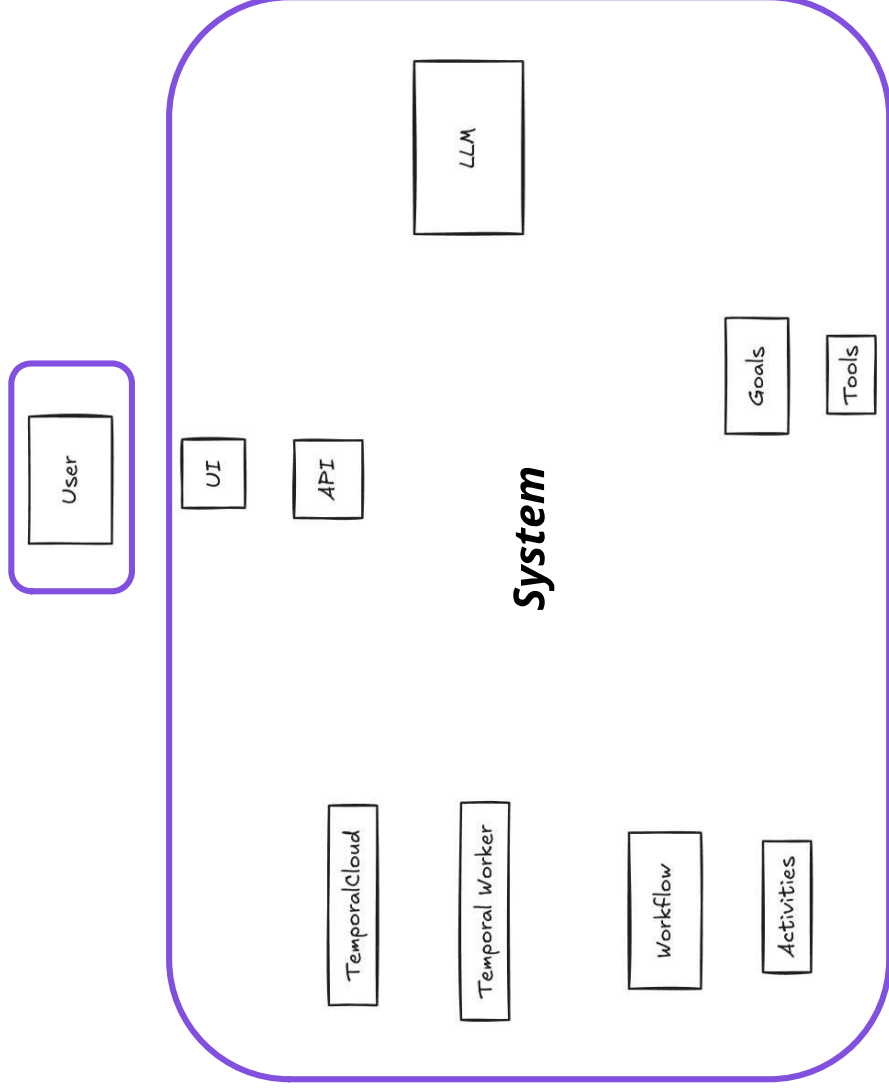
AI Agents | Architecture after Temporal



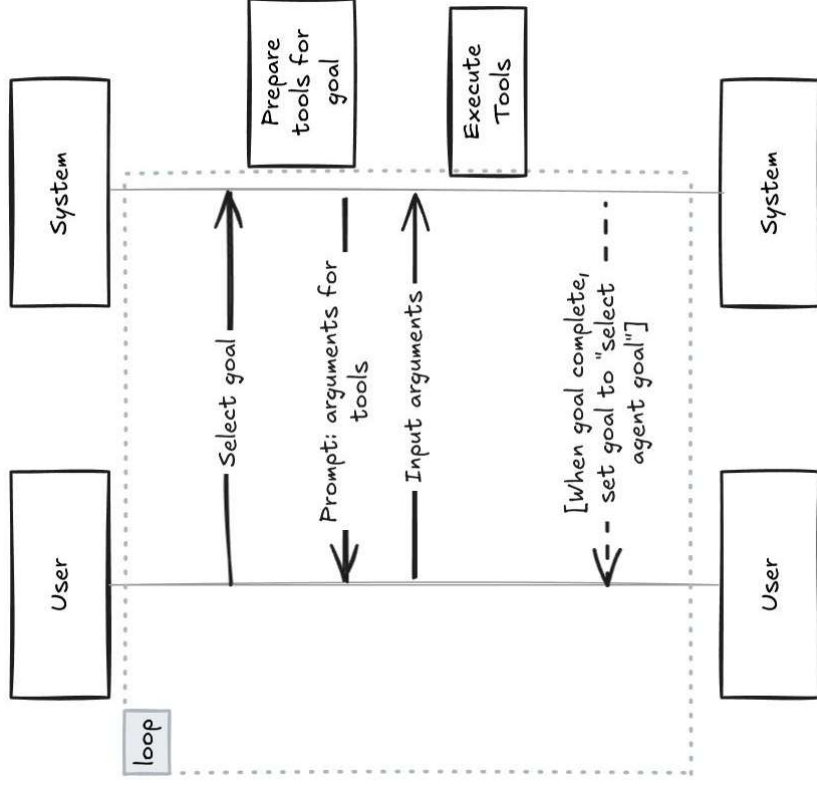
Architecture Elements | Agentic AI



Architecture Elements | Agentic AI



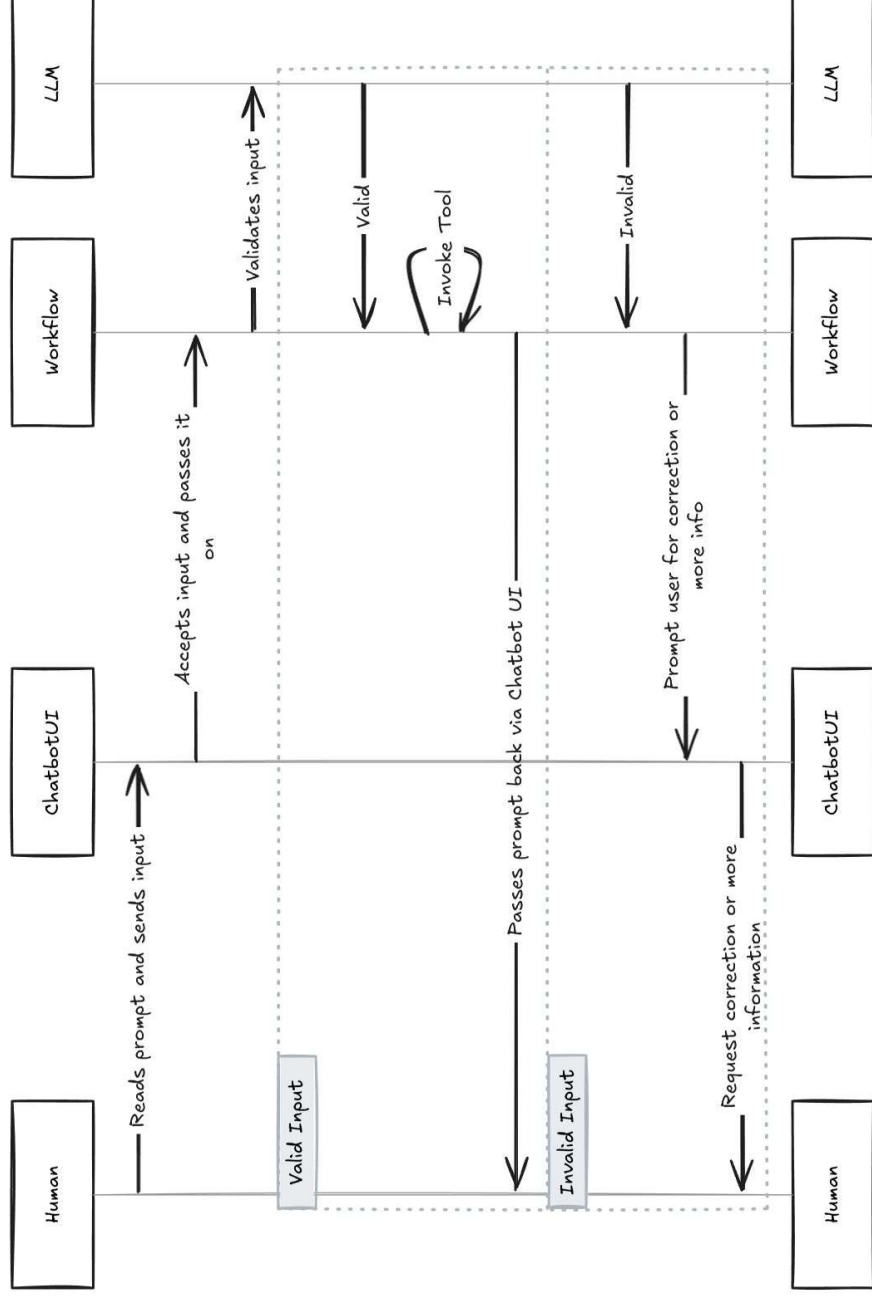
Interaction Model | User <-> System



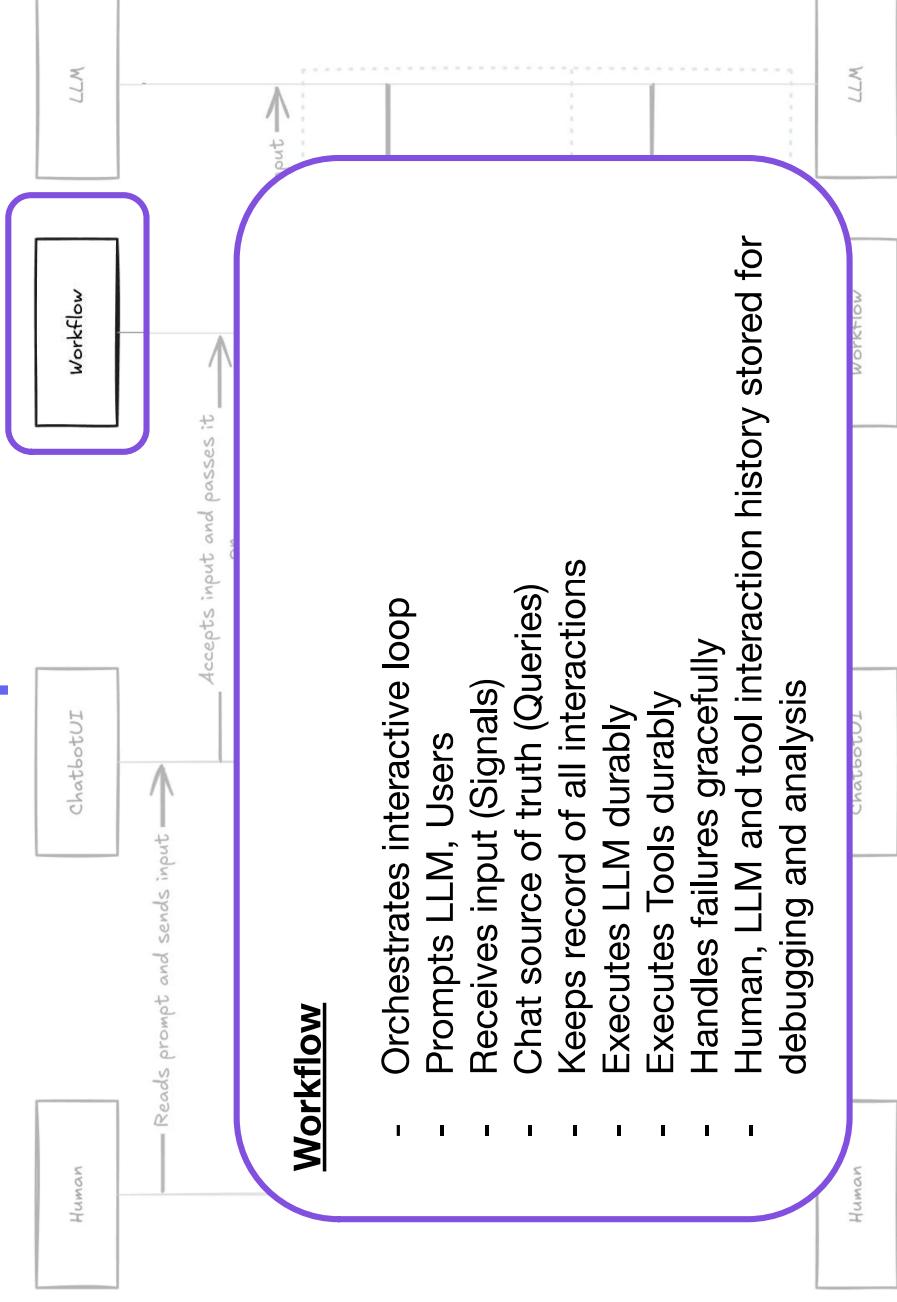
Key Terms:

- User: a person who wants to take action
- System: Temporal + AI + Goals + Tools
- Goal: something the user wants to finish
 - Made up of one to many tools
- Tool: a custom capability our system has
 - interact with public and private data sources or APIs

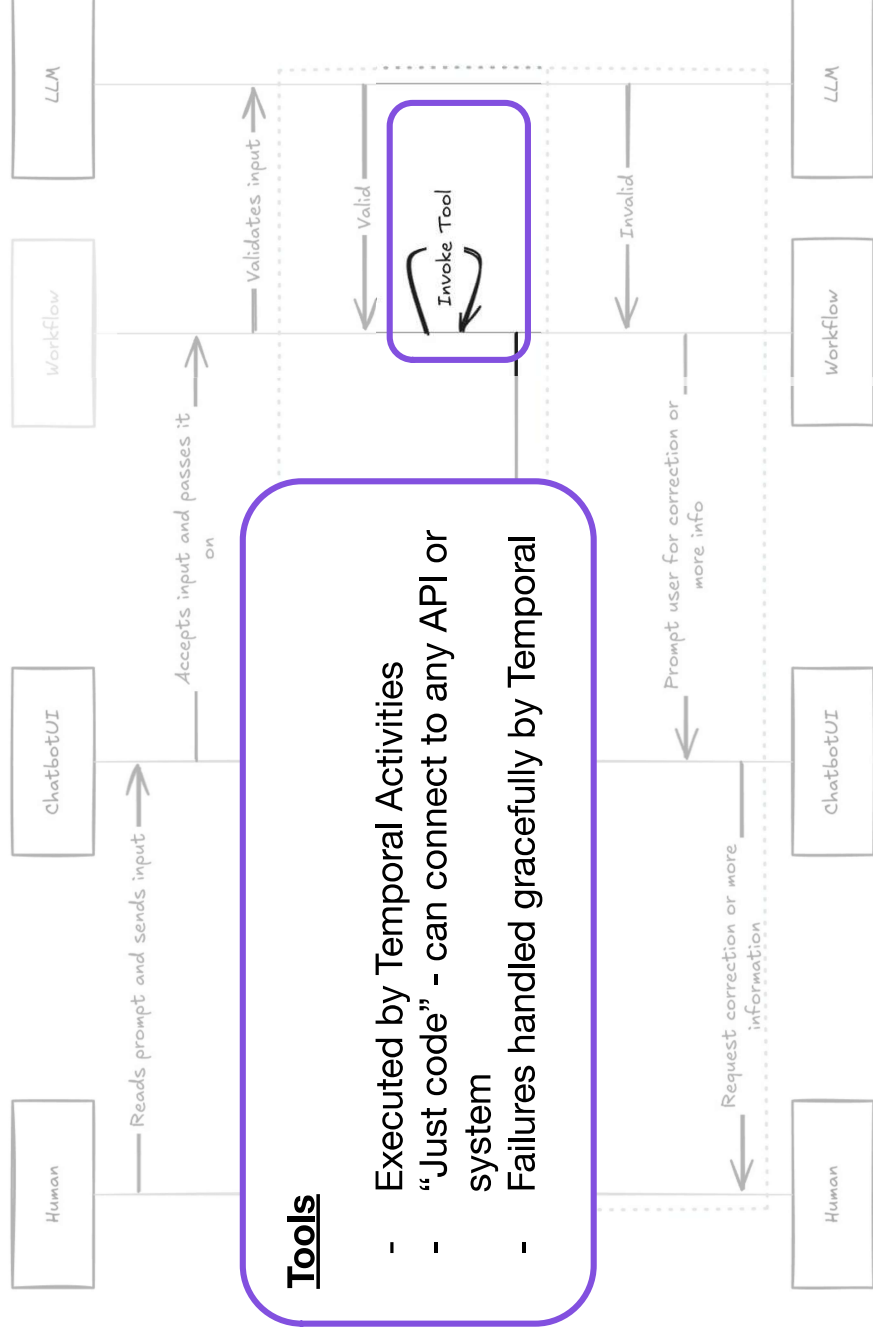
Interaction Model | Deeper



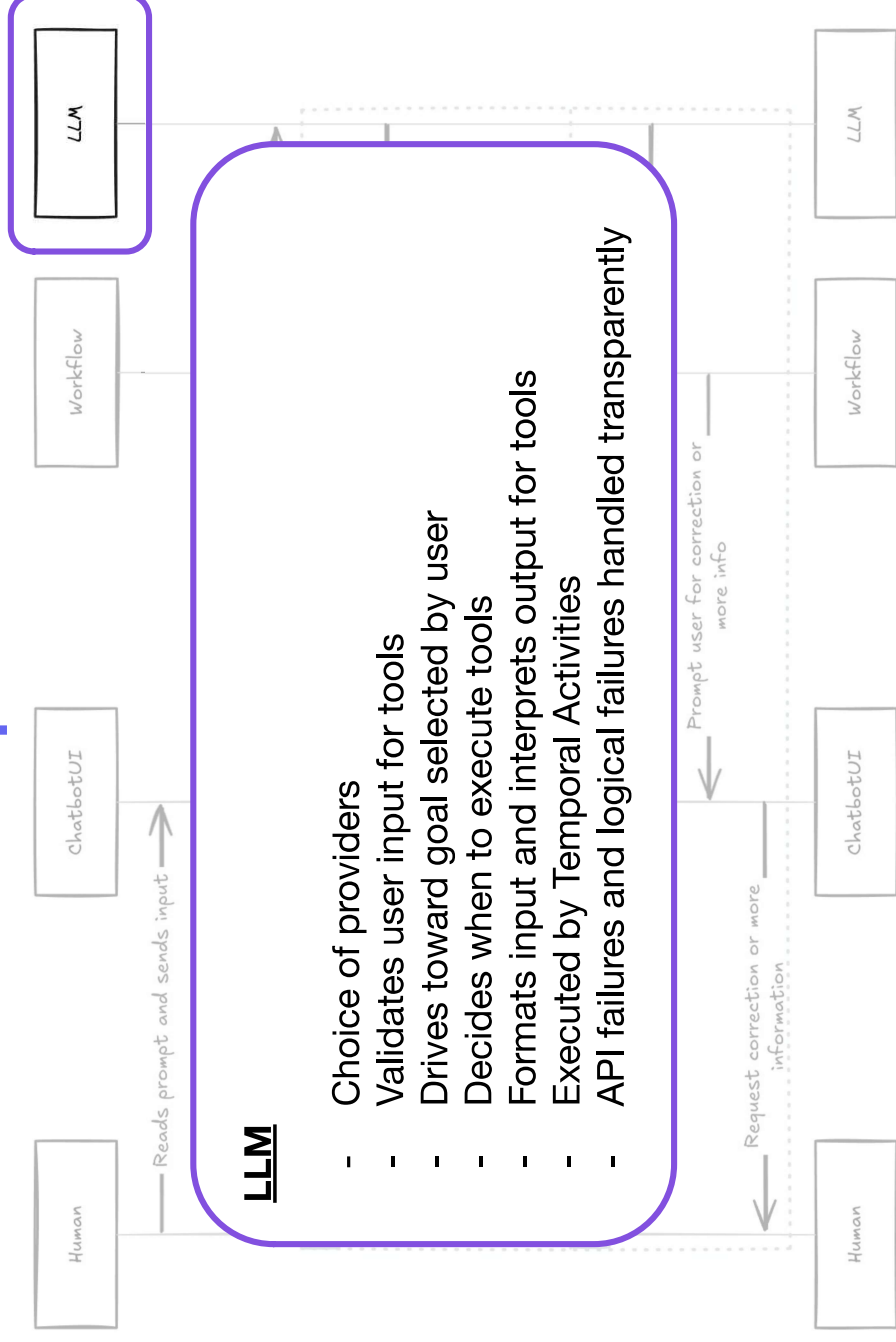
Interaction Model | Deeper Into Workflow



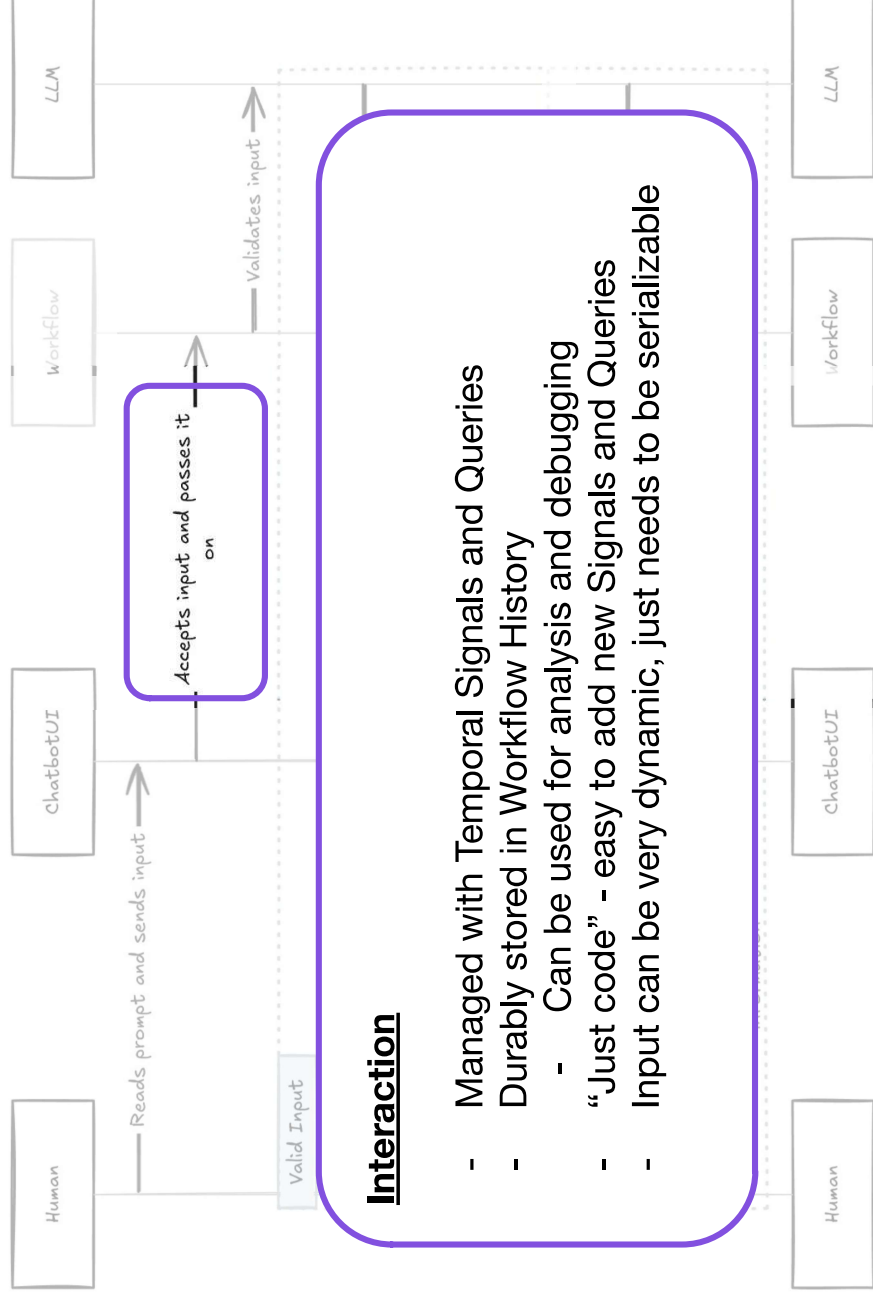
Interaction Model | Deeper into Tools



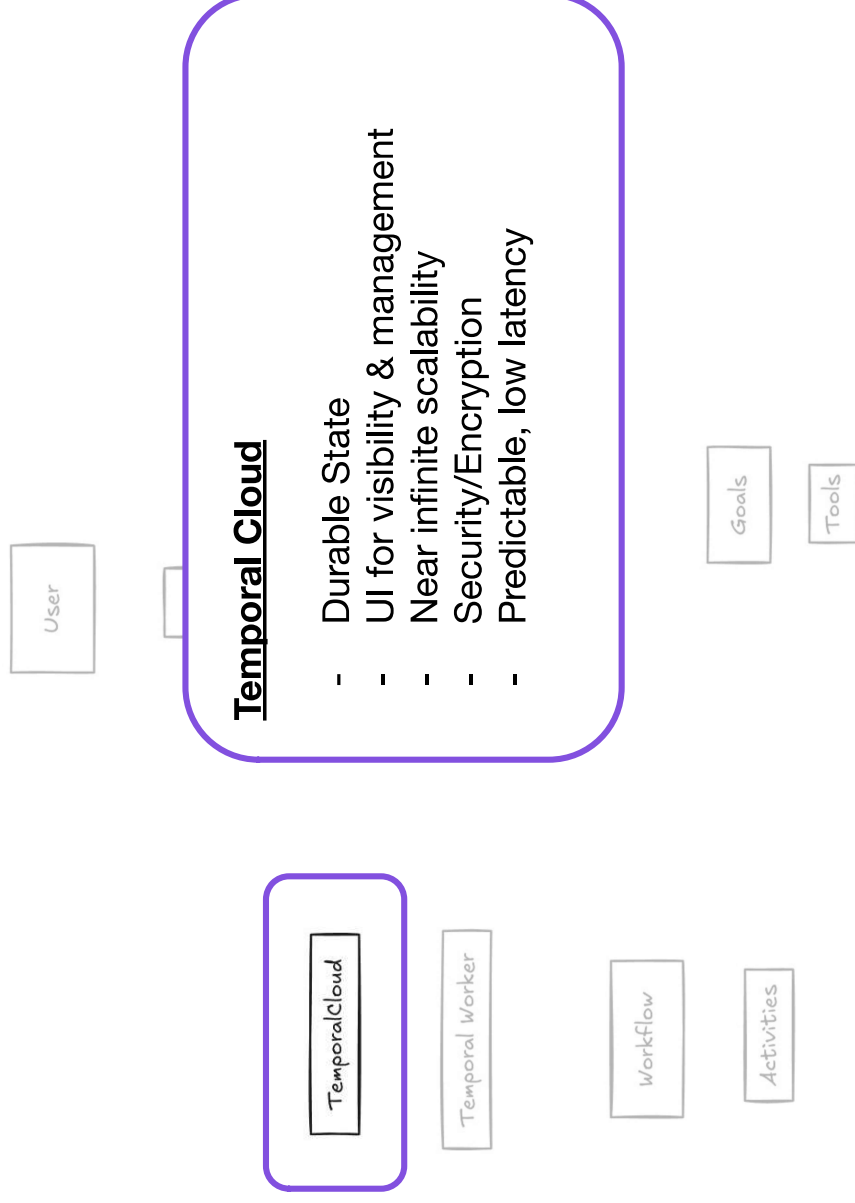
Interaction Model | Deeper into LLM



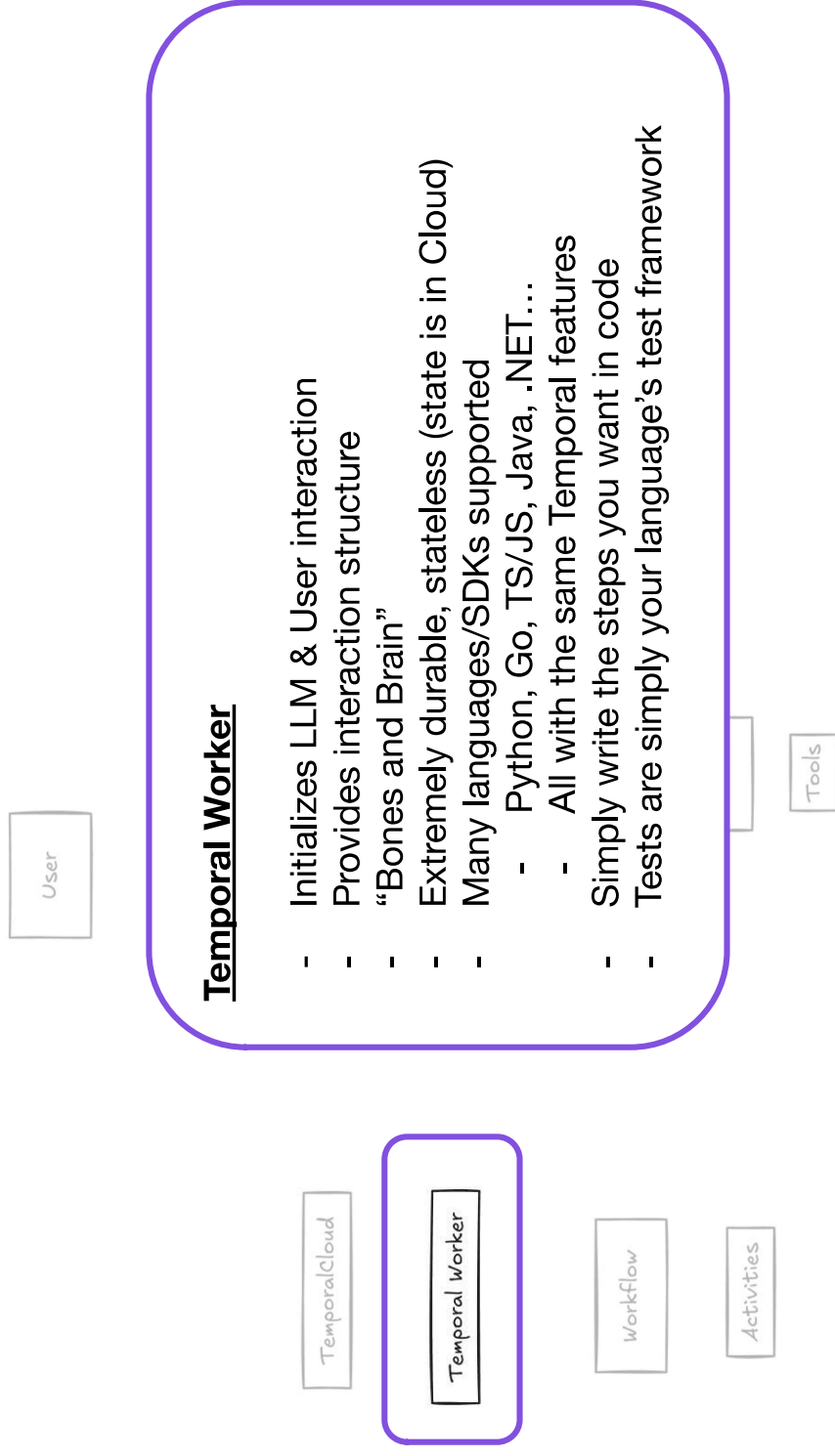
Interaction Model | Deeper into Interaction



Architecture Elements | Temporal Cloud



Architecture Elements | Temporal Cloud



Architecture Model | Agentic AI Complete

