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# The LEAP Program: Application Project Defenses

## AI Voice Agent for Building Information on Command

**UPFUND**


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# What is UPFUND?

*Data to make better decisions, AI to guide you*

Real Estate Data Sales

Custom Market Studies

UPFUND Explorer (SaaS)

# Problem Statement

*What problem does our project tackle?*

## In real estate, accessing detailed information is:

### Time-consuming

Users must manually search through multiple databases or websites.

### Not user-friendly

Especially for non-technical users or those unfamiliar with real estate tools.

### Basically Inefficient

Professionals in the field or clients visiting properties can’t easily obtain instant, hands-free information.

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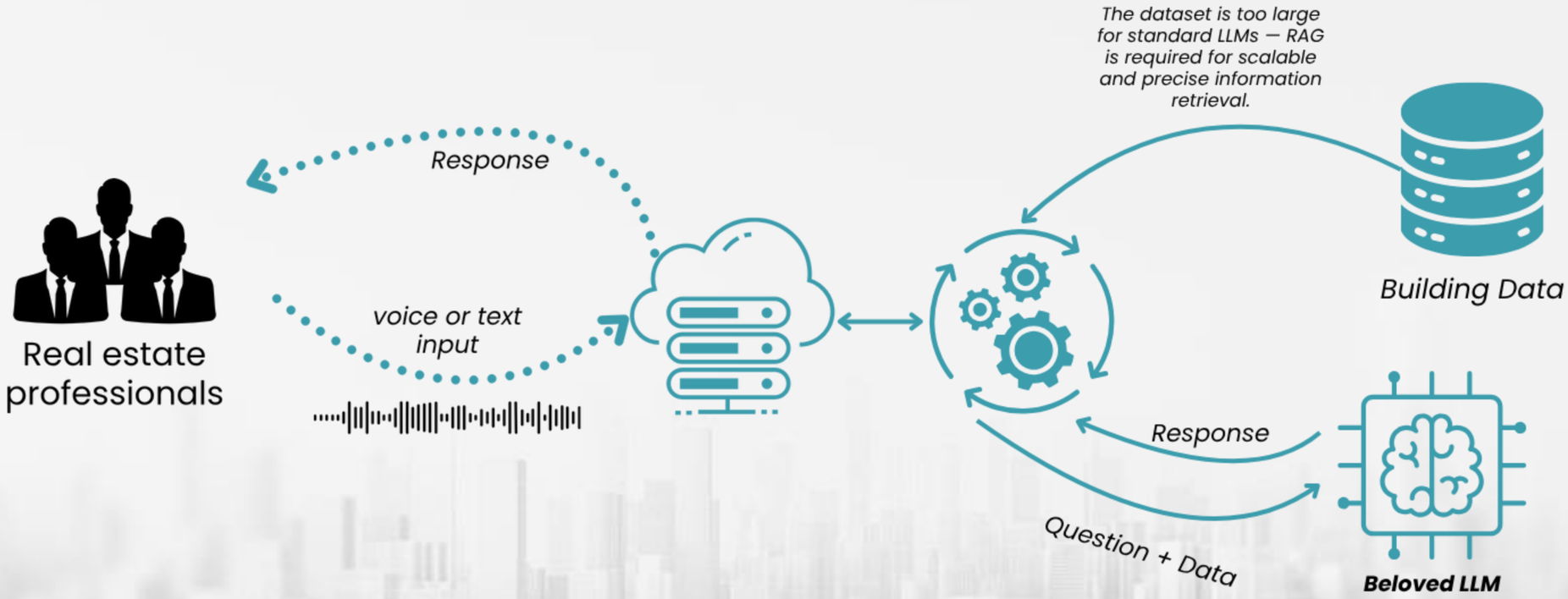
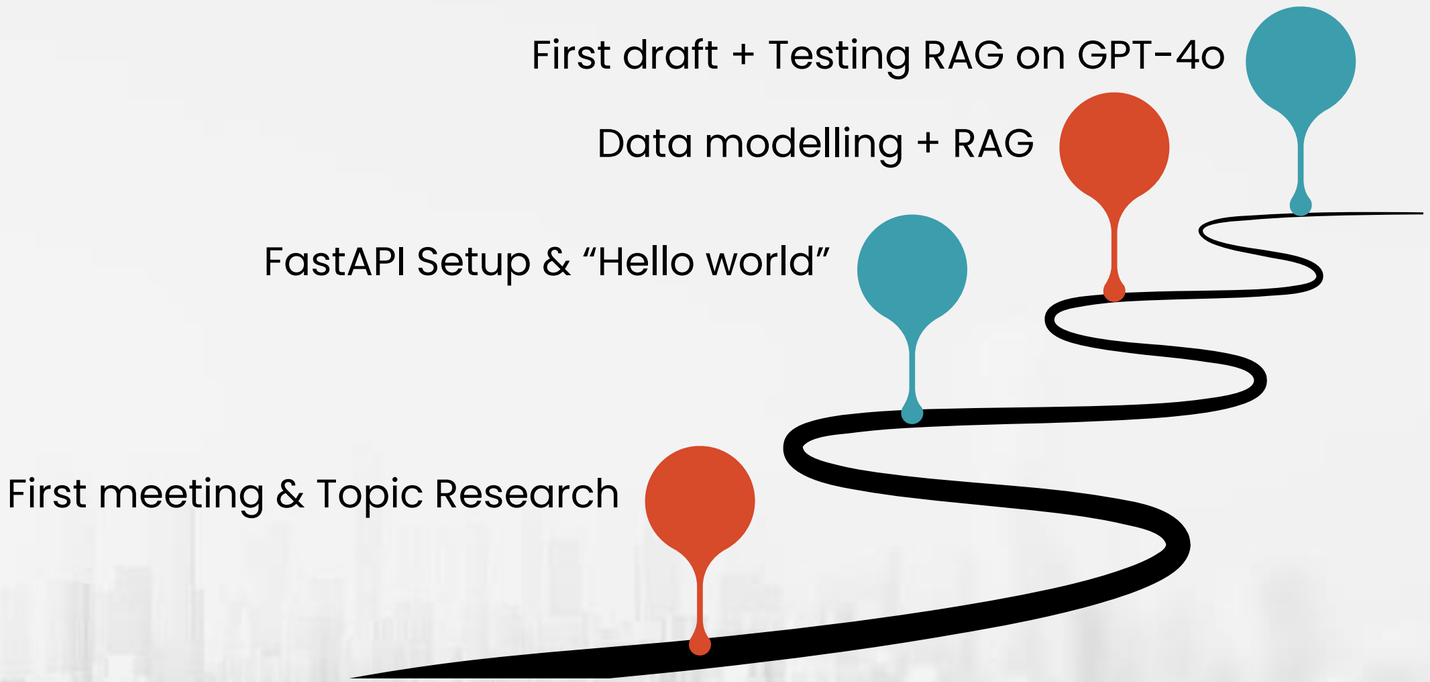
# Project Overview



# From Idea to Agent

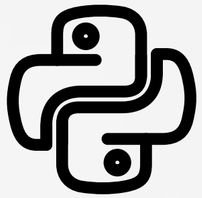
*Our Journey: Agile & Efficient*

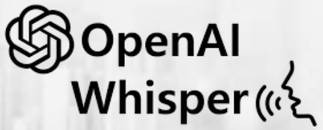
- Kanban-style task board to assign tasks and update statuses
- Sprint-like cycles of 3–4 hours/week.
- GitHub for version control.
- Weekly reviews.



# Technologies

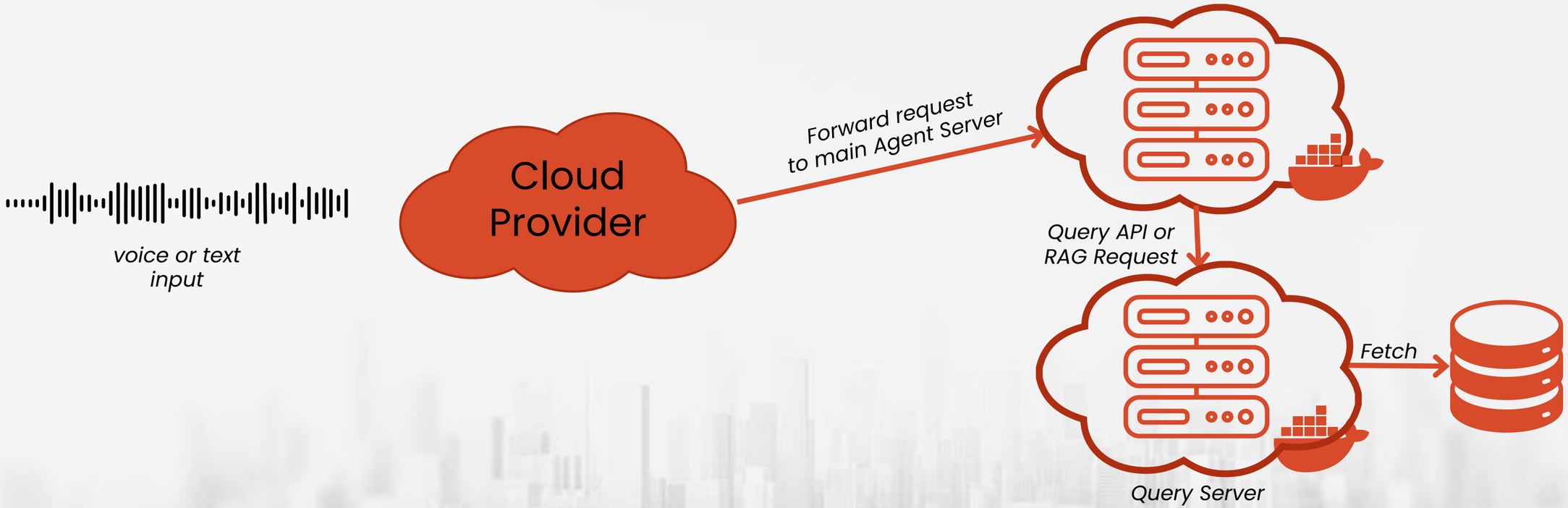
*What technologies power this architecture?*





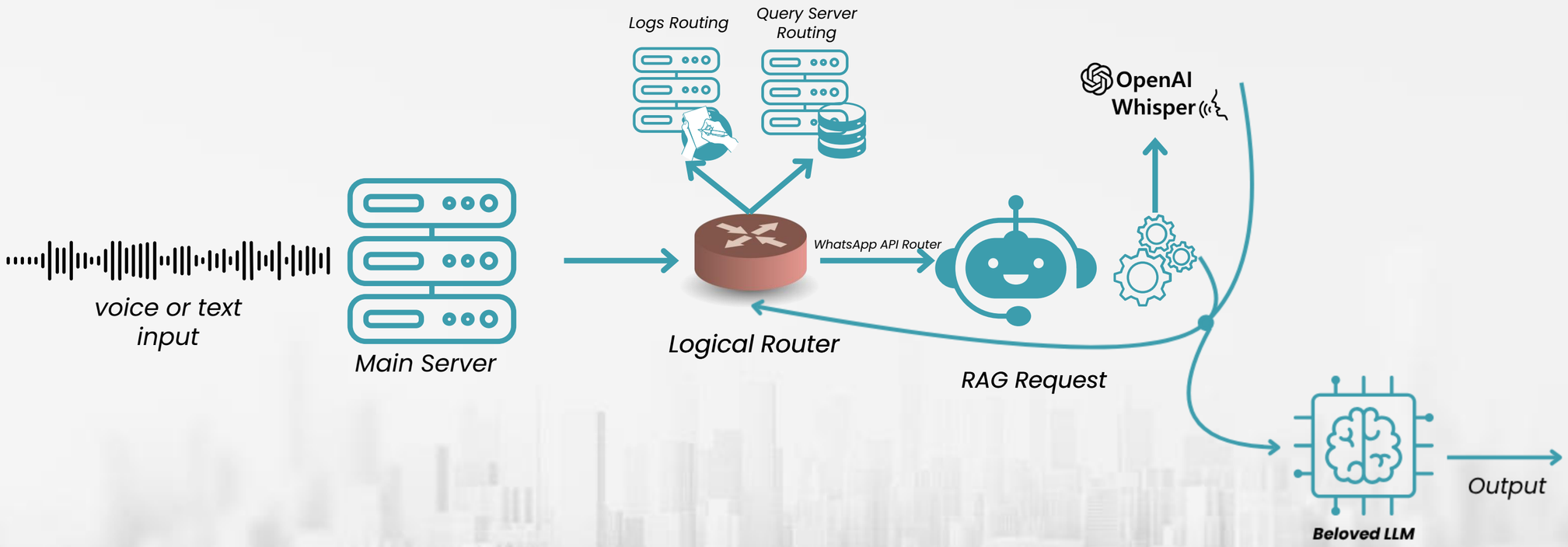
# Infrastructure Architecture

*Building the Infrastructure for a WhatsApp Voice Agent*



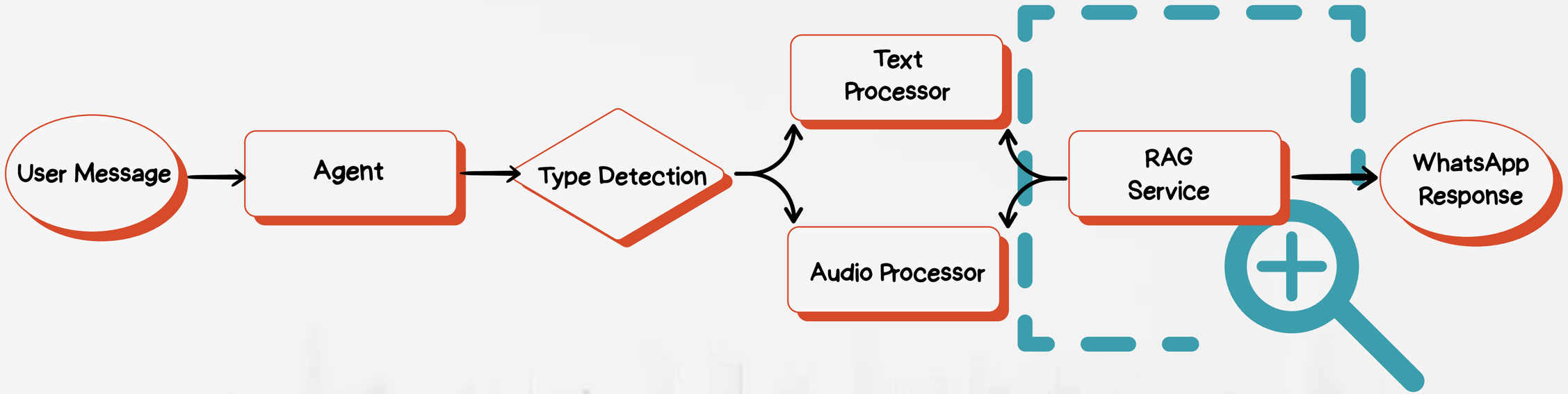
# Software Architecture

*Building the Infrastructure for a WhatsApp Voice Agent*



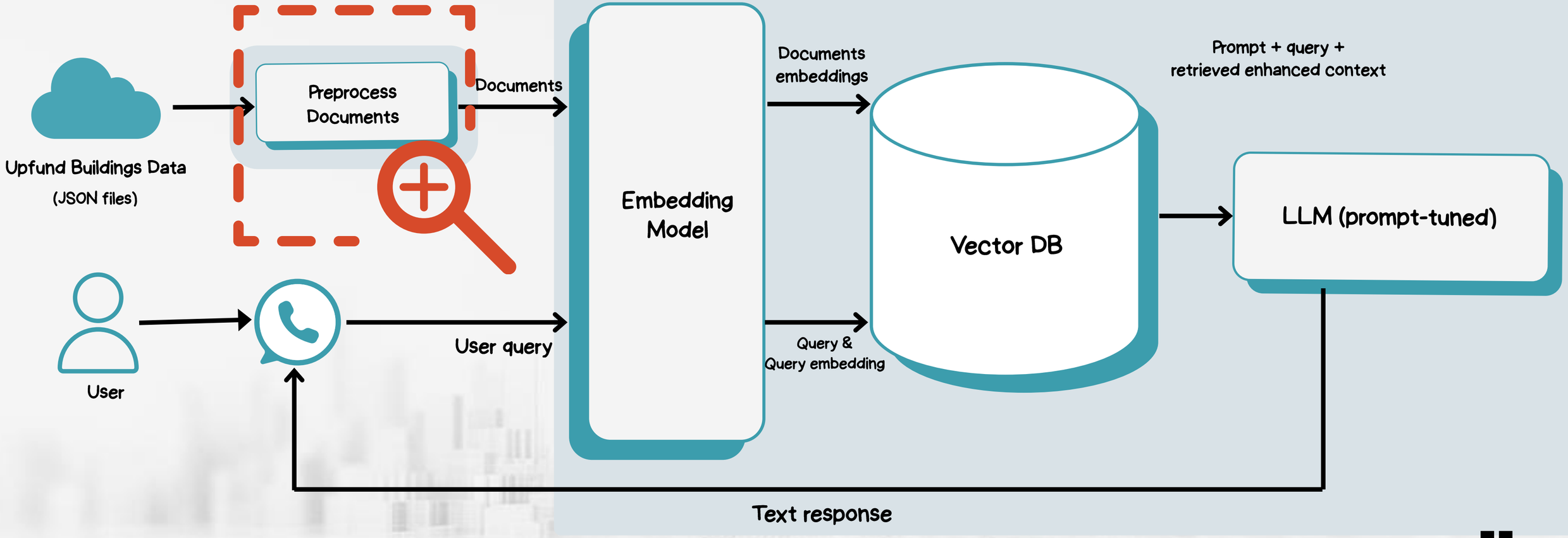
# Agent Pipeline

*Understanding how messages flow through the agent*



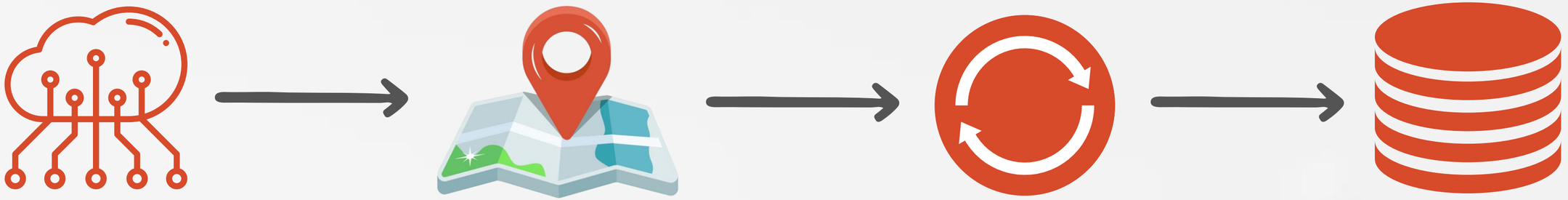
# RAG - LLM Memory Extension

*Augmenting responses with building-specific knowledge*



# Data Validation Pipeline

*Ensuring clean, structured data before persistence*



**Raw JSON Data**

**Fixing Location Data**

**Marshalling Data**

**DB Persistance**

# Gratitude & Acknowledgement

Mr. Mehdi BAKKALI

Pr. Imad KISSAMI

# Conclusions & Key Learnings

**Achievements**

- RAG system for building data
- Robust data validation
- Efficient vector search

**Learnings**

- Data validation importance
- Modular architecture benefits
- LLM + domain data synergy

**Future**

- Scalable architecture
- Real-time updates
- Advanced analytics

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# Thank you for your attention

Smarter Access. Better Decisions.