

HealthLight

Your go-to Universal Health Companion



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Manager

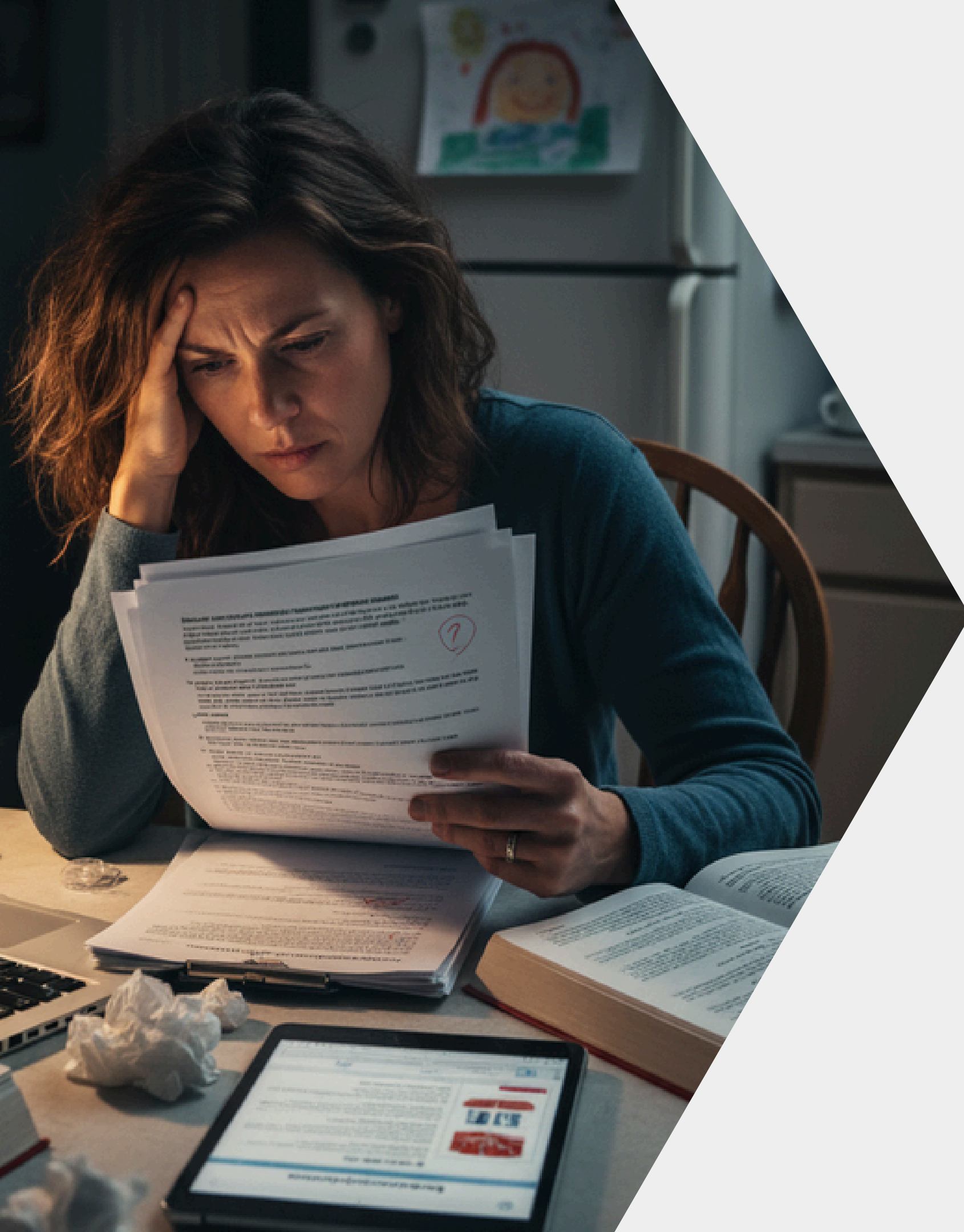




Demystifying Your Diagnosis

CUTTING THROUGH THE COMPLEXITY OF MEDICAL JARGON

- Interpreting medical jargon from office visits, medical discharge notes, and lab results
- Unclear next steps
- Shy to ask for more information
- Where to go for second opinions
- Healthcare coverage, costs and nearby providers



Healthcare Confusion is A Hidden Crisis

\$238B annually⁽¹⁾

avoidable medical expenses

9 out of 10 adults

face low health literacy

1.5x readmissions within 30 days

due to confusion issues

HealthLight


Your go-to Universal Health Companion

CLEAR | AFFORDABLE | LOCAL



Solving the problem of medical understanding
and access for everyone.

Key Features

 **DISCLAIMER: THIS TOOL IS NOT A SUBSTITUTE FOR PROFESSIONAL MEDICAL ADVICE. IT PROVIDES INFORMATIONAL SUPPORT ONLY**

01 COMPASSIONATE CARE COMPANION

An empathetic **conversational agent** that informs, guides, and comforts patients and caregivers—explaining symptoms in plain language, offering safe self-care guidance with disclaimers.

02 SIMPLIFIES MEDICAL NOTES

Translate complex medical jargon into **everyday language**, ensuring patients understand their doctor's medical notes, interpret lab results or discharge summaries to decipher diagnosis.

03 CLINIC FINDER

Our Clinic Finder connects users with local **healthcare providers**, ensuring they have access to necessary services

Approach



Datasets & Models

Hugging Face/Mistral 7B
Open AI/
Groq
CDC
WHO
CMS, data.gov, Kaggle

Tech Stack

Jupyter NB
Langchain & LangGraph
Gradio - UI
Python
ChromaDB

Design & Build

Miro Board
Chat Agent
Clinic Finder Agent
Web App UI

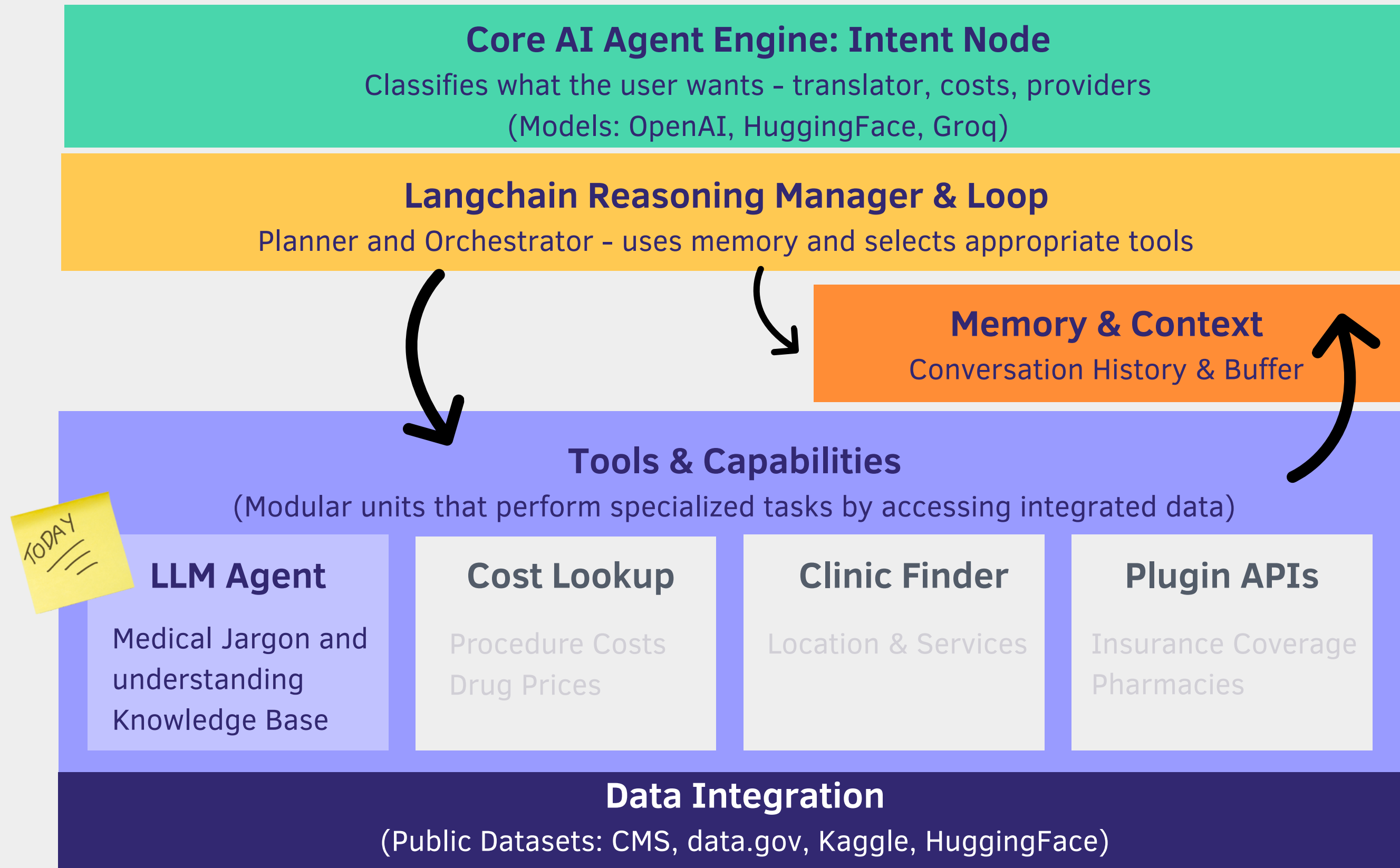
Test & Deploy

Test & Deploy Groq Llama3
application
Test on Jupyter NB
Wrap with Gradio UI

***Bolded items implemented**

Built on LangChain

MODULAR, CONTEXT-AWARE, EXTENSIBLE



An Agent That Understands Context — Not Just Text.

DEMONSTRATING USER INTERACTION

User: "Where can I get a colonoscopy in 91706?"

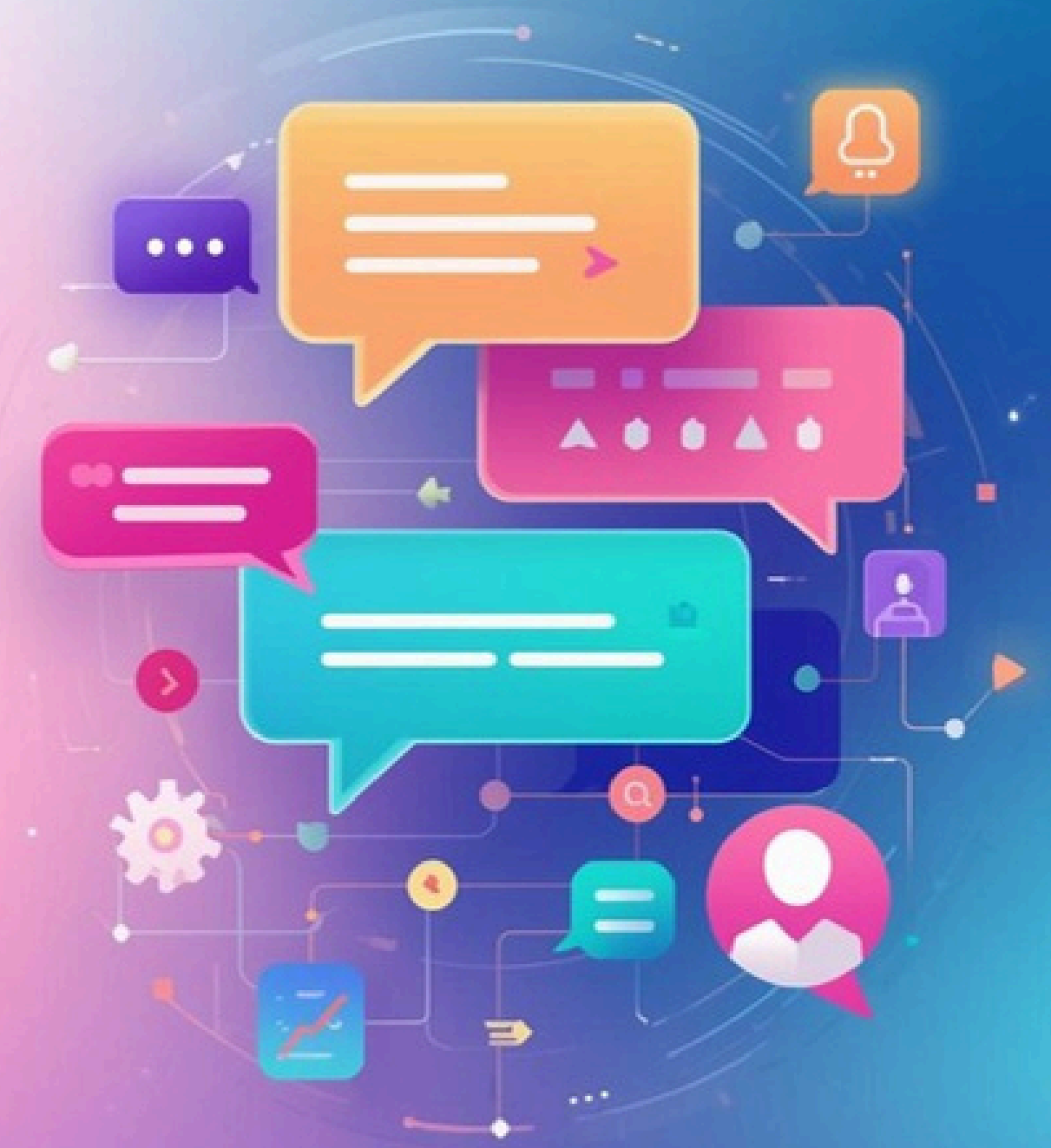
→ Agent detects a provider request, extracts ZIP, and lists nearby clinics.

User: “Now explain what colonoscopy is for.”

- Agent seamlessly switches to caregiver mode, explaining the procedure in simple terms.

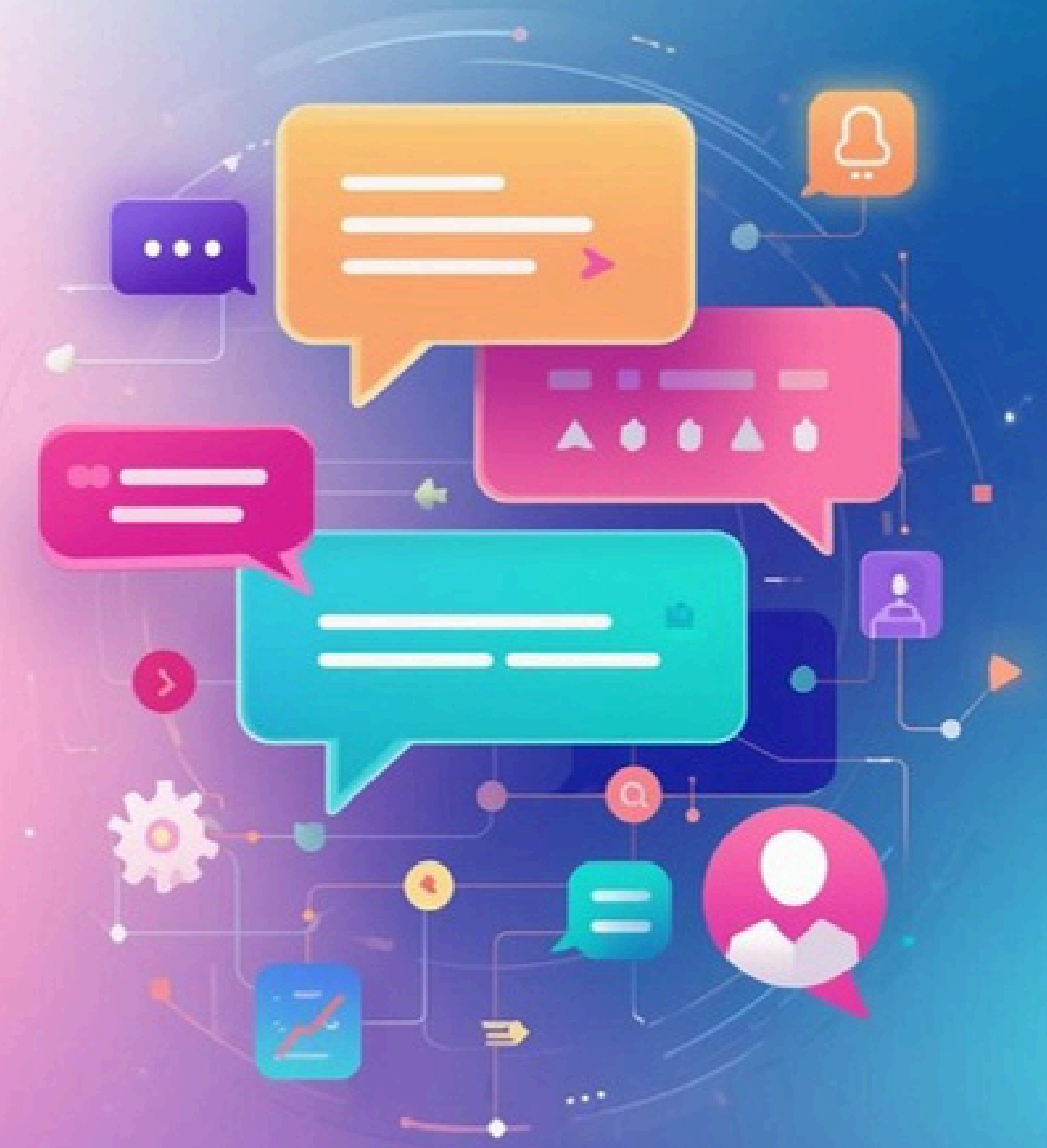
User: "Patient also has diabetes and high blood pressure."

→ Agent summarizes key conditions, explains medical terms, and suggests follow-up actions.

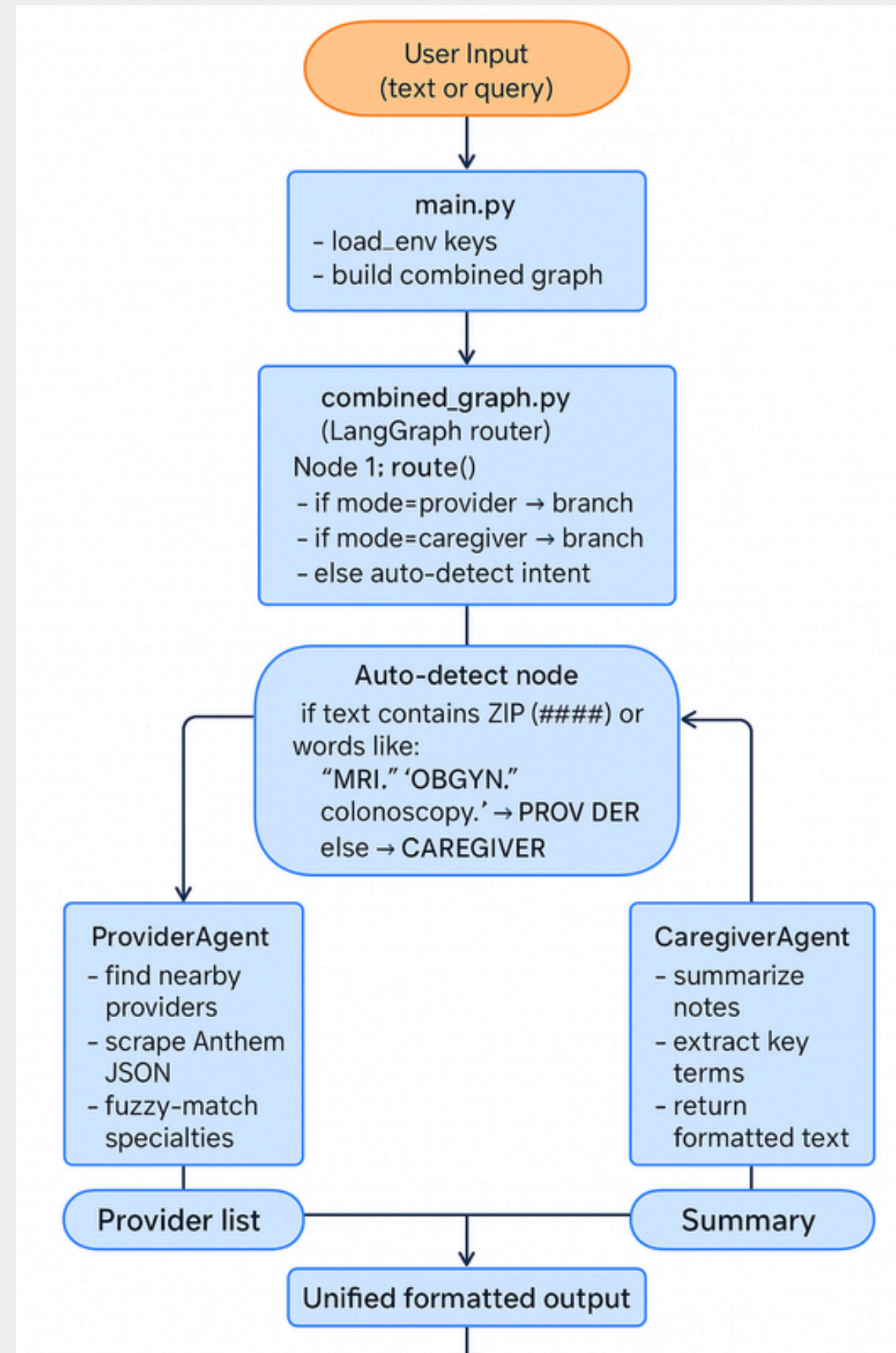


How the Agent Works Behind the Scenes

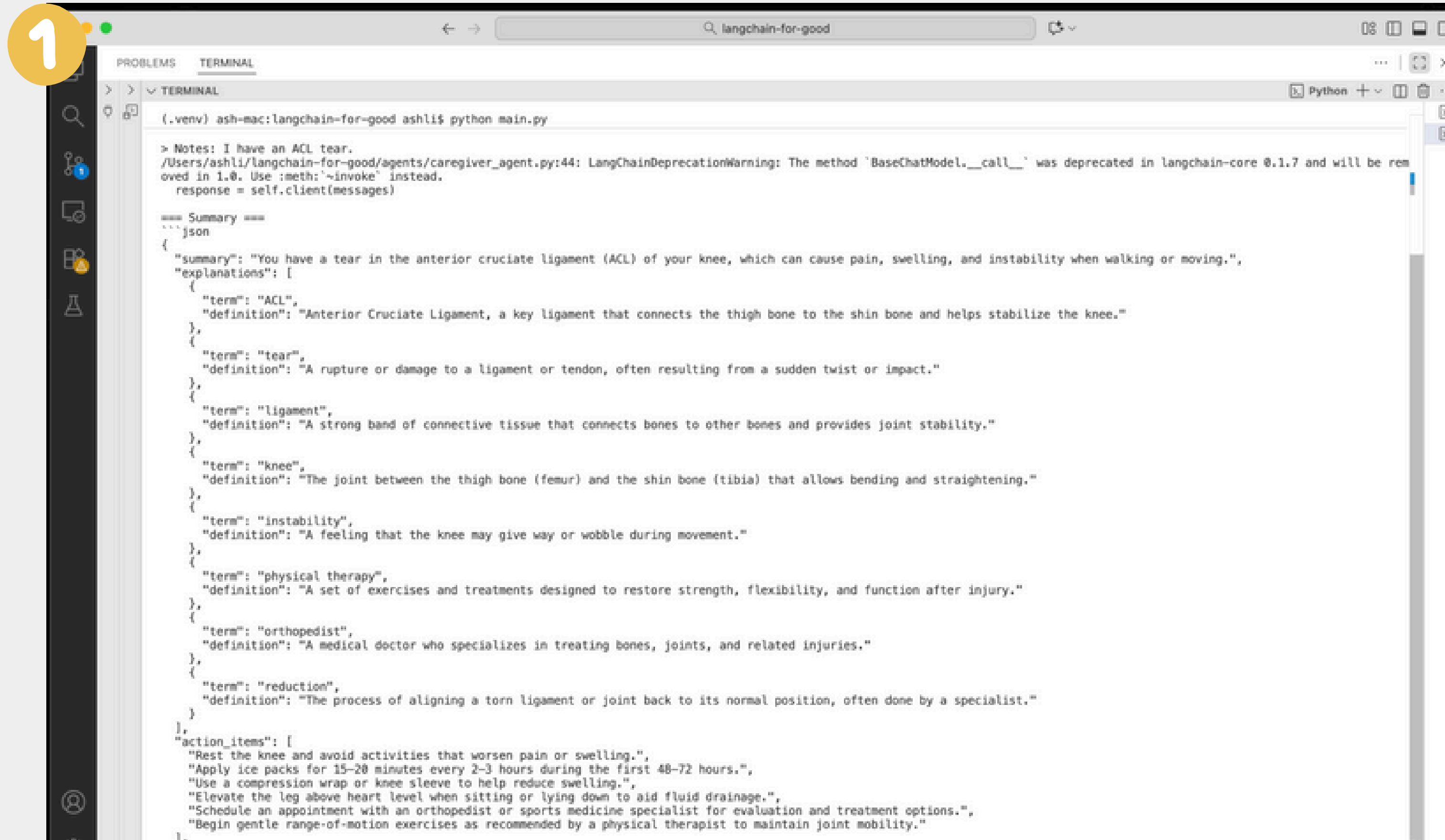
- 📍 Understands context — remembers prior ZIPs, symptoms, or conditions.
- 🔄 Routes automatically — Combined Graph decides:
 - If input mentions a ZIP or procedure → Provider path
 - Otherwise → Caregiver path
- 🧩 Multi-agent coordination —
 - ProviderAgent → uses live provider data and radius search.
 - CaregiverAgent → summarizes notes and explains terminology.
- 💬 Unified output — returns friendly, structured text.



Flowchart



Prototype Screenshots



```
(.venv) ash-mac:langchain-for-good ashli$ python main.py

> Notes: I have an ACL tear.
/Users/ashli/langchain-for-good/agents/caregiver_agent.py:44: LangChainDeprecationWarning: The method `BaseChatModel.__call__` was deprecated in langchain-core 0.1.7 and will be removed in 1.0. Use `meth:~invoke` instead.
  response = self.client(messages)

=== Summary ===
...json
{
  "summary": "You have a tear in the anterior cruciate ligament (ACL) of your knee, which can cause pain, swelling, and instability when walking or moving.",
  "explanations": [
    {
      "term": "ACL",
      "definition": "Anterior Cruciate Ligament, a key ligament that connects the thigh bone to the shin bone and helps stabilize the knee."
    },
    {
      "term": "tear",
      "definition": "A rupture or damage to a ligament or tendon, often resulting from a sudden twist or impact."
    },
    {
      "term": "ligament",
      "definition": "A strong band of connective tissue that connects bones to other bones and provides joint stability."
    },
    {
      "term": "knee",
      "definition": "The joint between the thigh bone (femur) and the shin bone (tibia) that allows bending and straightening."
    },
    {
      "term": "instability",
      "definition": "A feeling that the knee may give way or wobble during movement."
    },
    {
      "term": "physical therapy",
      "definition": "A set of exercises and treatments designed to restore strength, flexibility, and function after injury."
    },
    {
      "term": "orthopedist",
      "definition": "A medical doctor who specializes in treating bones, joints, and related injuries."
    },
    {
      "term": "reduction",
      "definition": "The process of aligning a torn ligament or joint back to its normal position, often done by a specialist."
    }
  ],
  "action_items": [
    "Rest the knee and avoid activities that worsen pain or swelling.",
    "Apply ice packs for 15-20 minutes every 2-3 hours during the first 48-72 hours.",
    "Use a compression wrap or knee sleeve to help reduce swelling.",
    "Elevate the leg above heart level when sitting or lying down to aid fluid drainage.",
    "Schedule an appointment with an orthopedist or sports medicine specialist for evaluation and treatment options.",
    "Begin gentle range-of-motion exercises as recommended by a physical therapist to maintain joint mobility."
  ]
}
```

2

```
(.venv) ash-mac:langchain-for-good ashli$ python main.py
  "term": "tear",
  "definition": "A rupture or damage to a ligament or tendon, often resulting from a sudden twist or impact."
},
{
  "term": "ligament",
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  "Schedule an appointment with an orthopedist or sports medicine specialist for evaluation and treatment options.",
  "Begin gentle range-of-motion exercises as recommended by a physical therapist to maintain joint mobility."
],
"unclear": "No additional details about the injury mechanism, severity, or current symptoms were provided."
...

```

```
> Where to get an MRI near 94102?
- Searching for procedure 'radiology, diagnostic imaging' near ZIP 94102 within 15.0 miles
```

```
==JESSICA ANN EVERT== | Family Practice, Palliative Medicine | 2351 CLAY ST STE 501, SAN FRANCISCO, CA 94115 | 4156003190
==JESSICA ANN EVERT== | Family Practice, Palliative Medicine | 1001 POTRERO AVE BLDG 80, SAN FRANCISCO, CA 94110 | 4152065252
==EVAN M SIRC== | Diagnostic Radiology, Radiology | 2001 DWIGHT WAY, BERKELEY, CA 94704 | 5102044460
==EVAN M SIRC== | Diagnostic Radiology, Radiology | 2450 ASHBY AVE, BERKELEY, CA 94705 | 5102041566
==EVAN M SIRC== | Diagnostic Radiology, Radiology | 3100 SAN PABLO AVE, BERKELEY, CA 94702 | 5109855031
```

I found several options for getting an MRI near the 94102 area. While there are no MRI facilities directly in that zip code, you can visit Evan M. Sirc, a diagnostic radiologist, at one of his locations in Berkeley, which is a short drive away. Here are the addresses: 2001 Dwight Way, 2450 Ashby Ave, and 3100 San Pablo Ave. If you need more assistance or specific directions, feel free to ask!

A Path Toward Equitable Health Access

TODAY

01

MVP

General Healthcare
Awareness
Local clinic matchmaking
Symptom Triage



02

Expansions

Estimate procedure costs
Multi-model Support
Multilingual Support
Voice Assistant
Mental Health Resource
HIPPA Compliant LLMs
RAG: open datasets (Medline,
NIH, PubMed abstracts)
Extended Model & Datasets



03

3P Integration

Insurance coverage APIs
Pharmacy costs APIs
Integration (FHIR APIs) for
anonymized Electronic Health
Records EHR interoperability



04

Partnerships

Local Hospitals & Clinics
Health Insurance providers
Medical/Medicaid/Medicare
Non Profits & Public Health



HealthLight

Your go-to Universal Health Companion



One question, one clear answer —
When it matters most.