

## Phase 1: Automated Ingestion (Live Cycle)

```

graph TD
    Radiologist[Radiologist Finalizes Report] --> EMR[Hospital EMR]
    EMR --> Folder[Saves PDF to Secure Folder]
    Folder --> PyMuPDF[PyMuPDF]
    PyMuPDF --> ExtractsRawText[Extracts Raw Text]
    ExtractsRawText --> Listens[Listens New PDFs Triggers]
    ExtractsRawText --> Olloma[Olloma LLM]
    Olloma --> ExtractsRawText2[Extracts Raw Text]
    ExtractsRawText2 --> Report[report embedding]
    Report --> PG[Postgres pgvector]
    PG --> PG2[Postgres LLM Local]
  
```

The diagram illustrates the automated ingestion process. It begins with a **Radiologist Finalizes Report**, which triggers the **Hospital EMR** to **Save PDF to Secure Folder**. This folder is then processed by **PyMuPDF**, which **Extracts Raw Text**. The extracted text is then used to **Listen for New PDFs (Triggers)** and is also fed into the **Olloma LLM**. The Olloma LLM **Extracts Raw Text** and generates a **report (embedding)**. This embedding is stored in a **Postgres (pgvector)** database. Finally, the data is processed by **Postgres LLM (Local)** to generate reports (text, report\_filed/tb\_pointer).

## Phase 2: Pre-Generation (Efficiency Hack)

Patients Scheduled/Hourly

```
graph TD; Clock((Clock)) --> Calendar[Calendar]; Calendar --> RAGBox[Phase 2: Pre-Generation (Efficiency Hack)];
```

**RAG**  
(Retrieval-Augmented Generation) Logic

1. Get Latest Report Vector
2. pgvector: Top-N Historical Reports
3. Decrypt Text (Latest + History)
4. Ollama LLM: "Synthesized Clinical Narrative"

# Phase 3: The User Experience (Glass Box)

## MA View

AI Pre-Visit Briefing: Ready

- MA Smart Checklist
- Check BP
- Verify new medications

## React UI Widget

Pre-Generated Summary

Settlements

## Doctor View

Summary

Click Hyperlinked Sentence

View Patient History

The Glass Box

EMR Integration API - Opens Original PDF