🩺 Chronic Kidney Disease (CKD) Diet and Lab Result Interpretation Chatbot Scenario Package

📖 Scenario Background

In Halifax, Nova Scotia, many patients live with chronic kidney disease (CKD), requiring careful monitoring of lab values and dietary restrictions. Patients often need help understanding test results like eGFR, and learning how to limit nutrients like potassium or phosphorus in their diet. Nova Scotia Health and Kidney Foundation of Canada provide accessible resources to guide patients in managing CKD at home. This scenario asks students to use the **Ollama + AnythingLLM** stack, combined with locally available, authoritative health education materials, to design a chatbot for **CKD Diet and Lab Result Interpretation**.

🎯 Scenario Goals

- Help users interpret common lab results (e.g., eGFR staging)
- Provide safe, evidence-based dietary guidance for CKD management
- Clearly communicate that the chatbot does **not** provide professional medical diagnoses

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🗂️ Recommended Knowledge Base Materials

Students should collect and organize **retrievable, structured** local health education materials to serve as their RAG knowledge base. Recommended sources include:

- Kidney Foundation of Canada – CKD Staging and Diet Tips
- Nova Scotia Health – Low-Potassium Food Lists
- Health Canada – Nutrition Guidelines for Kidney Disease
- Patient-Friendly Lab Result Interpretation Sheets
- Any relevant local clinic or public health resources

> 📌 **Requirement:** Upload as PDF, Markdown, or plain text, using general, consistent file names such as:
>
> - `knowledge_document_1.pdf`
> - `knowledge_document_2.md`
> - `knowledge_document_3.txt`

🎯 Suggested User Questions for Testing

Your final system must be able to answer these scenario questions using your uploaded knowledge base materials:

- **Question 1:** "My eGFR came back as 50—what stage is that?"
- **Question 2:** "Which fruits and vegetables should I avoid because of high potassium?"

Suggested GitHub Repository Structure

All project deliverables must be **uploaded to a GitHub Repository**. Recommended folder structure:

```
/cold-flu-chatbot
├─ knowledge_base/
│  ├─ knowledge_document_1.pdf
│  ├─ knowledge_document_2.md
│  └─ knowledge_document_3.txt
├─ prompt/
│  └─ system_prompt.txt
├─ documentation/
│  └─ scenario_pack.md (Provided)
│  └─ use_case_description.md
├─ demo/
│  ├─ demo_video.mp4
│  └─ chat_transcript.txt
└─ README.md
```

Deliverables

- **Knowledge Base**
  - Include all documents actually used in AnythingLLM
  - Must be clearly structured and named using the general format above
- **System Prompt**
  - Defines the chatbot role, tone, scope, and ethical disclaimers
- **Use Case Description**
  - A clear document that identifies user pain points and success criteria.
- **Demo Materials**
  - Screen recording or video showing chatbot responses to the core scenario questions
  - Chat transcript
- **README.md**
  - Brief project overview
  - Local deployment/testing instructions
  - Author(s) and date

⚠ Important Notes

- All materials must be uploaded to a **public or private GitHub Repository** for review
- The project is for **educational research use only** and must not be used for real diagnosis or treatment

- The chatbot README.md file must **prominently display a "Not Medical Diagnosis" disclaimer**