PRISMETIC

Scope of POC: Full-Stack AI Application Engineer

Please provide a "cut-down" version hat validates abilities to understand the core logic (RAG + Prompt Engineering) without wasting time on boilerplate configuration.
Here is the project definition. It strips away the complexity to focus purely on **logic and code quality**.

Technical Assessment: The "Single-Video Twin"

Objective: Build a functional Proof of Concept (POC) that turns a single YouTube video URL into a conversational AI agent. The agent should answer questions based *strictly* on the video content and attempt to adopt the speaker's tone.

Timebox:

- **Duration:** 5 days maximum.

The Functional Requirements:

1. Ingestion:
   - The user inputs a YouTube URL into a simple text field.
   - The backend retrieves the transcript of that video (you may use youtube-transcript-api or similar libraries).
2. Processing (RAG):
   - Store the transcript in a temporary knowledge base (in-memory Vector Store or simple ChromaDB/FAISS implementation is acceptable; no complex database required).
   - Generate embeddings for the transcript chunks.
3. Interaction:
   - Provide a simple chat interface.
   - When the user asks a question, retrieve the most relevant information from the transcript.
4. The "Twin" Aspect:
   - The System Prompt must instruct the AI to answer *only* using the provided context.

The Tech Stack (Strict):

- **Frontend:** No design libraries needed, standard HTML/CSS is fine. We care about functionality, not aesthetics.
- **Backend:** Python (Serverless functions are a plus).
- **AI:** free choice.
- **Cloud:** AWS, Azure or GCP

Deliverables:

1. **GitHub Repository:** Clean code structure, comments where necessary.
2. **README.md:** Clear instructions on how to install dependencies and run the project locally.
3. **Demo Video (Loom/Screen recording):** A 2-minute video showing the ingestion of a URL and a chat interaction demonstrating the bot answering correctly based on the video.

ai-eng-0821-2025@prismetic.com
Internet City, Dubai, UAE.
+971 (0) 4-450-9061