Demo guide on how to create AI assistants : Cloud Search Agent and Local Chatbot

This guide provides instructions for creating two types of AI assistants: a cloud-based search agent that can retrieve information from your PDF documents, and a local chatbot that you can customize and run on your own machine.

I. Building a Cloud Search Agent with Google Cloud:

1. **Google Cloud Setup:**
    - Sign up for a Google Cloud account.
    - Create a new project.
    - Enable the "Agent builder" APIs.
    - Create a new Google Cloud Storage (GCS) bucket.
2. **Upload Your Data:** Upload the PDF files you want the search agent to access to your newly created GCS bucket.
3. **Create the Search Agent:**
    - In Agent builder, create a new "Search Agent."
    - Complete all required fields, including your app name, external name, and location (ensure this matches your GCS bucket location).
    - Select the "Enterprise edition features" and "Advanced LLM features" checkboxes.
4. **Connect to Your Data:**
    - Click "Create Datastore."
    - Choose "Cloud Storage" as the source.
    - Select "Unstructured documents (PDF, HTML, TXT and more)."
    - Browse and select the GCS bucket containing your uploaded PDFs.
    - Name your datastore and click "Create."
5. **Finalize and Test:**
    - Locate and select your newly created datastore, then click "Create" again.
    - The system will process your documents and create the search agent. This may take a few minutes.
    - Once processing is complete, click "Preview" to test your search agent's functionality.

II. Developing a Local Chatbot with Node.js:

1. **Set Up Your Environment:**

- Download and install Node.js.
- Download and install an IDE like Visual Studio Code.
- Download the code from this GitHub repository: https://github.com/rihanamsaddek/ai-assistant-chatbot (Click "Code" > "Download ZIP").
- Unzip the downloaded folder to your desired development directory.
- Obtain an API key from https://aistudio.google.com/ and store it securely.

2. **Configure the Chatbot:**
   - Open the code folder in your IDE.
   - Create a new file named .env in the root of your project directory.
   - Add the following line to the .env file, replacing "Paste API Key here" with your actual API key: API_KEY="Paste API Key here"
3. **Run the Chatbot:**
   - Open your IDE's terminal.
   - Navigate to your project directory.
   - Run the command **npm install** to install the necessary dependencies.
   - Run the command **node server.js** to start the chatbot server.
   - Open a web browser and go to **http://localhost:3000/** to access the chatbot.
4. **Customize the Chatbot :** To improve or customize the chatbot's responses, modify the prompt within the history and role sections of the **server.js** file. Save the changes and restart the server using node server.js to see the effects.