Project Brief: GenAI Chatbot

Objective

Inspired by companies like **GitLab**, which embody a “build in public” philosophy, this project aims to foster transparency, collaboration, and learning. GitLab openly shares its strategies, roadmaps, and internal processes, encouraging community feedback and improvement.

The challenge for this project is to **develop an interactive chatbot** that allows users— the employees or aspiring employees—to easily access information from GitLab’s Handbook and Direction pages. By providing an engaging interface, the chatbot will retrieve relevant information based on user queries and help users learn in an accessible and engaging way.

Project Scope and Requirements

Deliverables

1. **Project Documentation**
    a. A clear **project write-up** explaining your approach, decisions, and key technical choices made throughout the project.
2. **GitHub Repository**
    a. Include **all source code** and files in a GitHub repository.
    b. Ensure the repository has a **README** with detailed instructions for setting up and running the chatbot locally.
3. **Chatbot Core Functionality**
    a. **Data Processing**: Retrieve and structure relevant data from GitLab’s Handbook and Direction pages.
    b. **Chatbot Implementation**: Develop a **Generative AI-based chatbot** capable of understanding and answering user questions effectively.
4. **Frontend/UI Development**
5. Use technologies like **Streamlit**, **Gradio**, or **React** to create a **user-friendly chat interface**. Ensure that:
    a. Responses are displayed clearly, allowing users to ask follow-up questions seamlessly.
    b. Basic **error handling** is implemented for smooth user interaction.
    c. The UI has a **simple, intuitive layout** for accessibility.
6. **Public Deployment**
    a. Deploy the chatbot and provide a **public URL** for access. Recommended platforms include: **Vercel**, **Hugging Face Spaces**, or **Streamlit Community Cloud**

Bonus Points for Innovation

- Implement advanced or creative features beyond the basic requirements
- Innovative Guardrailing and transparency features
- Product thinking to enhance the User Experience (In this case the user being employees)

Evaluation Criteria

1. **Innovation**
    a. How creatively you use tools, models, or techniques to enhance the chatbot's performance.
2. **Code Quality**
    a. Clean, readable, and well-documented code that follows best practices.
3. **Approach**
    a. Efficient data handling, smooth user interaction, and successful deployment (if applicable).

Submission Instructions

- Submit a **Google Doc** with your project write up
- Submit a link to the **GitHub repository** containing the complete source code
- Provide the **public URL** if the chatbot has been deployed

Resources for Candidates

- **Streamlit Community Cloud**: https://streamlit.io/cloud
- **Hugging Face Spaces**: https://huggingface.co/spaces
- **Vercel**: https://vercel.com
- **Google AI Studio**: https://aistudio.google.com
- **Supabase**: https://supabase.com

Many resources offer generous **free tiers** to enable you to develop the project.(Ex - Gemini API has 1,500 API calls a day as part of their free tier). You can also use any other resource of your choice.

This project will give you hands-on experience with **Generative AI**, web deployment, and data handling—all essential skills for aspiring AI engineers. We look forward to seeing your creativity and technical expertise in action!

Good luck and happy coding! 🚀