

Assignment 4: Developing a Chatbot UI with Gradio

Objective:

Create a user-friendly chatbot UI using Gradio. This initial part focuses on designing and deploying a basic chatbot interface capable of handling user interactions. The advanced component involves enhancing the chatbot by integrating it with a FastAPI backend, aiming to improve functionality and introduce dynamic responses.

Basic Chatbot UI Creation

Deliverable:

- **Gradio Web Interface Link:** Share a direct URL to your Gradio web interface, showcasing the chatbot's capability to conduct basic conversations. This interface should be publicly accessible.

Advanced Part: Integrating FastAPI

After completing the basic chatbot UI, move on to enhancing the chatbot by integrating a FastAPI backend.

Deliverable:

- **Integrated Chatbot Application Link:** Provide a URL to the version of your chatbot that now includes FastAPI backend integration. This advanced version should demonstrate the chatbot's enhanced interactivity and ability to handle more complex queries or functions.

Submission Guidelines:

- Ensure both versions of your chatbot are fully operational and accessible via the provided URLs, without requiring login or special access.
- Accompany each URL with a brief document (PDF format) that includes:

- An overview of the functionalities demonstrated by the chatbot at each stage.
- A summary of the approach taken to implement the Gradio interface and the FastAPI backend, focusing on any advanced features or capabilities added through the integration.
- Instructions for interacting with the chatbot, especially for the advanced version, detailing any specific inputs or commands that showcase its enhanced functionalities.

Focus:

- Initially, concentrate on creating a straightforward yet engaging chatbot interface using Gradio.
- For the advanced part, the focus shifts to backend development, where you'll work on extending the chatbot's capabilities by enabling it to process and respond to queries dynamically using FastAPI.

This assignment is structured to guide you through the process of creating an interactive web-based chatbot application and enhancing it with backend technology, providing a comprehensive learning experience in web app development.