

DAY – 98

22 December 2025

Flask Backend (app.py)

1. Purpose of app.py

This file is the **backend of the chatbot web application** developed using **Flask**. It connects the frontend (HTML, CSS, JavaScript) with the chatbot logic and manages user sessions and chat history.

2. Library Imports

- Flask → Creates the web application
- render_template → Loads HTML page
- request → Receives user input
- jsonify → Sends response in JSON format
- session → Stores user chat history
- flask_session.Session → Enables server-side sessions
- chatbot_logic functions → Generate chatbot response
- os → Handles session folder creation

3. Flask App and Session Configuration

- Flask app is initialized using Flask(__name__)
- Server-side sessions are enabled using **filesystem storage**
- Chat session lifetime is set to **1 hour**
- A session folder is automatically created to store session data securely

4. Home Route ("/")

- Initializes an empty chat_history list in session
- Loads the chatbot UI (index.html)
- Ensures each user has a separate chat session

5. Chatbot API Route ("/get")

- Receives user message and selected language from frontend
- Validates empty input
- Automatically reloads and trains chatbot data if required
- Fetches previous chat history from session
- Generates chatbot reply using `get_response()`
- Saves updated chat history back to session
- Sends response to frontend in JSON format

6. Running the Application

- Flask server is started using `app.run()`
- `debug=False` is used for safe and stable execution

7. Conclusion

This backend file ensures:

- Smooth frontend–backend communication
- Persistent chat history using sessions
- Multilingual chatbot support
- Secure and efficient chatbot operation