DAY – 94

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Chatbot Popup HTML Code – Detailed Explanation

1. Introduction of Chatbot Interface

This HTML file is used to design the **frontend structure** of a chatbot popup interface.
The chatbot is developed as a **floating popup window** that appears on the website when the user clicks on the chat icon.
It provides an interactive interface where users can communicate with the chatbot in **English and Punjabi languages**.

This file is integrated with a **Flask backend**, and external CSS and JavaScript files are linked to manage styling and functionality.

2. Document Type Declaration

<!DOCTYPE html>

This line defines the document type as HTML5.
It tells the browser that this webpage is written using the latest HTML standard, ensuring better compatibility and performance.

3. HTML Root Element

<html lang="en">

- This is the **root element** of the HTML document.
- lang="en" specifies that the default language of the page content is **English**.
- It helps search engines and screen readers understand the language.

4. Head Section

The <head> section contains meta information, title, and external resource links.

4.1 Character Encoding

<meta charset="UTF-8" />

- UTF-8 encoding allows the use of special characters, symbols, and Punjabi language text.
- It is very important for multilingual chatbot support.

4.2 Responsive Design Meta Tag

<meta name="viewport" content="width=device-width, initial-scale=1.0"/>

- This makes the chatbot mobile-friendly.
- The chatbot popup automatically adjusts to different screen sizes such as mobile, tablet, and desktop.

4.3 Page Title

<title>Chatbot Popup</title>

- This defines the title of the webpage.
- The title appears on the browser tab.

4.4 Linking External CSS File

<link rel="stylesheet" href="{{ url_for('static', filename='style.css') }}">

- This line links the external CSS file.
- url_for() is a Flask function used to correctly load static files.
- style.css controls:
  - Chat popup design
  - Colors
  - Button position
  -
  - Chat message layout

5. Body Section

The <body> section contains all the visible elements of the chatbot.

6. Floating Chat Button

```
<button class="chat-btn" onclick="toggleChat()">□</button>
```

Explanation:

- This button appears as a **floating chat icon** on the webpage.
- The □ emoji represents chat functionality.
- onclick="toggleChat()" calls a JavaScript function that:
    - Opens the chatbot popup
    - Closes it when clicked again

This improves **user experience** by keeping the chatbot hidden until required.

7. Chat Popup Container

```
<div class="chat-popup" id="chatPopup" role="dialog" aria-label="chatbot">
```

Explanation:

- This div contains the **entire chatbot interface**.
- id="chatPopup" is used by JavaScript to show or hide the popup.
- role="dialog" improves **accessibility**.
- aria-label="chatbot" helps screen readers identify the chatbot.

8. Chat Header Section

```
<div class="chat-header">
```

The chat header is used to display:

- Chatbot title
- Language selector
- Close button

8.1 Chat Title

<span id="chatTitle">Help </span>

- Displays the chatbot title as **“Help”**.
- The title can be dynamically changed using JavaScript.
- It indicates that the chatbot is meant to assist users.

8.2 Chat Controls Section

<div class="chat-controls">

This section groups the **language selector** and **close button**.

9. Language Selection Dropdown

```
<select id="langSelect" onchange="setChatLanguage()">
  <option value="english" selected>English</option>
  <option value="punjabi">ਪੰਜਾਬੀ</option>
</select>
```

Explanation:

- Allows the user to select chatbot language.
- Default language is **English**.
- Punjabi language support is provided for local users.
- onchange="setChatLanguage()" calls a JavaScript function to:
  - Update chatbot responses
  - Change UI text language

This feature makes the chatbot **bilingual**.

10. Close Button

<button class="close-btn" onclick="toggleChat()" title="Close">✖</button>

Explanation:

- Used to close the chatbot popup.
- Uses the same toggleChat() function.
- Improves usability and control for the user.

11. Chat Body Section

<div class="chat-body" id="chatBody">

Explanation:

- Displays all chat messages (user + bot).
- Messages are dynamically added using JavaScript.
- Scroll functionality is handled through CSS.

11.1 Initial Bot Message

```
<div class="chat-message bot" id="initialBotMsg">
  Hey! How can I help you today?
</div>
```

- This is the **default greeting message**.
- It appears when the chatbot is opened.
- Makes the interaction friendly and conversational.

12. Chat Input Section

```
<div class="chat-input">
```

This section allows users to type and send messages.

12.1 User Input Field

```
<input type="text" id="userInput" placeholder="Type your message here..."
autocomplete="off" />
```

Explanation:

- Accepts user input.
- autocomplete="off" prevents browser suggestions.
- Placeholder text guides the user.

12.2 Send Button

```
<button id="sendBtn" onclick="sendMessage()">➤</button>
```

Explanation:

- Sends the user message to the chatbot.
- Calls sendMessage() JavaScript function.
- This function sends the message to the backend and receives a response.

13. Linking External JavaScript File

<script src="{{ url_for('static', filename='script.js') }}"></script>

Explanation:

- Links the chatbot logic file.
- Handles:
  - Opening/closing popup
  - Sending messages
  - Receiving bot responses
  - Language switching

14. Overall Working of the Chatbot UI

1. User clicks on chat button
2. Chat popup opens
3. User selects language
4. User types a message
5. JavaScript sends message to backend
6. Bot response is displayed in chat body

15. Conclusion

This HTML code provides a **complete frontend structure** for a chatbot popup system.
It is:

- User-friendly

- Responsive
- Bilingual
- Easily integrated with Flask backend

The chatbot interface improves communication between users and the system by offering instant automated responses.