```
from flask import Flask, request, jsonify, render_template_string
import json
import random
import re
from sklearn.feature_extraction.text import CountVectorizer
from sklearn.linear_model import LogisticRegression

# Sample Intents
intents = {
  "intents": [
    {
      "tag": "greeting",
      "patterns": ["Hi", "Hello", "Hey", "Good morning"],
      "responses": ["Hello! How can I help you today?"]
    },
    {
      "tag": "order_status",
      "patterns": ["Where is my order?", "Track my order", "Order status"],
      "responses": ["Can you provide your order ID please?"]
    },
    {
      "tag": "refund",
      "patterns": ["I want a refund", "Return product", "Money back"],
      "responses": ["I can help with that. When did you place the order?"]
    },
    {
      "tag": "goodbye",
      "patterns": ["Bye", "See you later", "Goodbye"],
      "responses": ["Goodbye! Have a great day!"]
    }
  ]
}

# Training data preparation
corpus, tags = [], []
for intent in intents['intents']:
    for pattern in intent['patterns']:
        corpus.append(pattern)
        tags.append(intent['tag'])

vectorizer = CountVectorizer()
X = vectorizer.fit_transform(corpus)
clf = LogisticRegression()
clf.fit(X, tags)

def clean_text(text):
    return re.sub(r"[^\w\s]", "", text).lower()

def get_response(user_input):
    user_input = clean_text(user_input)
    vec = vectorizer.transform([user_input])
    tag = clf.predict(vec)[0]

    for intent in intents['intents']:
        if intent['tag'] == tag:
            return random.choice(intent['responses'])
    return "I'm not sure I understand. Can you please rephrase?"

# Flask app
app = Flask(__name__)

# HTML Template
```

```
html_template = """
<!DOCTYPE html>
<html>
<head>
  <title>Customer Support Chatbot</title>
  <script>
    async function sendMessage() {
      const message = document.getElementById("userMessage").value;
      const response = await fetch("/chat", {
        method: "POST",
        headers: { "Content-Type": "application/json" },
        body: JSON.stringify({ message })
      });
      const data = await response.json();
      const log = document.getElementById("chatLog");
      log.innerHTML += `<p><strong>You:</strong> ${message}</p>`;
      log.innerHTML += `<p><strong>Bot:</strong> ${data.response}</p>`;
      document.getElementById("userMessage").value = "";
    }
  </script>
</head>
<body>
  <h2>Customer Support Chatbot</h2>
  <div id="chatLog" style="border:1px solid #ccc; padding:10px; height:300px; overflow-
y:scroll;"></div>
  <input type="text" id="userMessage" />
  <button onclick="sendMessage()">Send</button>
</body>
</html>
"""
```

```
@app.route('/')
def home():
    return render_template_string(html_template)


@app.route('/chat', methods=['POST'])
def chat():
    user_input = request.json.get('message')
    response = get_response(user_input)
    return jsonify({'response': response})


if __name__ == '__main__':
    app.run(debug=True)
```