

Conversational AI Backend Service Implementation

Frontend Chatbot UI (React)

```
// File: frontend/src/App.js

import React, { useState } from "react";
import axios from "axios";
import "../App.css";

function App() {
  const [messages, setMessages] = useState([]);
  const [input, setInput] = useState("");

  const sendMessage = async () => {
    if (!input.trim()) return;
    const userMsg = { sender: "User", text: input };
    setMessages([...messages, userMsg]);

    try {
      const res = await axios.post("http://localhost:3000/chat", { message: input });
      const botMsg = { sender: "Bot", text: res.data.reply };
      setMessages((prev) => [...prev, botMsg]);
    } catch (error) {
      setMessages((prev) => [...prev, { sender: "Bot", text: "Server error. Please try again." }]);
    }
    setInput("");
  };

  return (
    <div className="App">
      <h1>Customer Support Chatbot</h1>
      <div className="chat-box">
        {messages.map((msg, index) => (
          <div key={index} className={msg.sender === "User" ? "user-msg" : "bot-msg">
            <strong>{msg.sender}</strong>: </strong>{msg.text}
          </div>
        ))}
      </div>
      <div className="input-area">
        <input
          type="text"
          value={input}
          onChange={(e) => setInput(e.target.value)}
          placeholder="Type your message..."
        />
        <button onClick={sendMessage}>Send</button>
      </div>
    </div>
  );
}
```

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```
    </div>
  );
}

export default App;
```