

C. Source Code

```
1. import { db } from './firebaseConfig.js';
2. import { sendToOpenAI, classifySession } from './openaiService.js';
3.
4. let chatTimeout;
5. let chatSession = [];
6. let userName = "";
7.
8. const saveChatToDatabase = async () => {
9.   try {
10.    // Klasifikasikan seluruh sesi percakapan
11.    const category = await classifySession(chatSession);
12.
13.    await db.ref('chats').push({
14.      userName: userName || 'anonim',
15.      createdAt: new Date().toLocaleString(),
16.      messages: chatSession,
17.      category: category
18.    });
19.
20.    console.log('Sesi percakapan berhasil disimpan');
21.  } catch (error) {
22.    console.error('Error saat menyimpan sesi percakapan:', error);
23.  }
24. };
25.
26. const endSession = () => {
27.   const chatBox = document.getElementById('chatBox');
28.   const chatInput = document.getElementById('chatInput');
29.
30.   const endMessage = document.createElement('div');
31.   endMessage.classList.add('chat-message', 'bg-warning', 'p-2', 'mb-2', 'rounded');
32.   endMessage.textContent = 'Karena tidak ada interaksi saat ini, chat saya akhiri. Terima k
asih!';
33.   chatBox.appendChild(endMessage);
34.
35.   chatSession.push({ message: 'Sesi berakhir', sender: 'system', timestamp: Date.now() });
36.
37.   saveChatToDatabase();
38.
39.   chatInput.disabled = true;
40.   document.getElementById('sendButton').disabled = true;
41.   document.getElementById('newSessionButton').style.display = 'block';
42. };
43.
44. const resetChatTimeout = () => {
45.   clearTimeout(chatTimeout);
46.   chatTimeout = setTimeout(() => {
```

```

47.     endSession();
48.   }, 60000); // 1 menit
49. };
50.
51. const startNewSession = () => {
52.   const chatBox = document.getElementById('chatBox');
53.   const chatInput = document.getElementById('chatInput');
54.   const sendButton = document.getElementById('sendButton');
55.   const newSessionButton = document.getElementById('newSessionButton');
56.
57.   chatBox.innerHTML = "";
58.   chatSession = [];
59.   userName = "";
60.
61.   const welcomeMessage = document.createElement('div');
62.   welcomeMessage.classList.add('chat-message', 'bg-light', 'p-2', 'mb-2', 'rounded');
63.   welcomeMessage.textContent = 'Selamat datang di layanan asisten virtual Marlindo. Se-
    elum kita mulai, bolehkah saya tahu nama Anda?';
64.   chatBox.appendChild(welcomeMessage);
65.
66.   chatSession.push({ message: welcomeMessage.textContent, sender: 'system', timestamp:
    Date.now() });
67.
68.   newSessionButton.style.display = 'none';
69.
70.   chatInput.disabled = false;
71.   sendButton.disabled = false;
72.
73.   resetChatTimeout();
74. };
75.
76. const sendMessage = async () => {
77.   const chatBox = document.getElementById('chatBox');
78.   const chatInput = document.getElementById('chatInput');
79.
80.   if (chatInput.value.trim() !== "") {
81.     const userMessage = chatInput.value.trim();
82.
83.     // Tampilkan pesan pengguna di antarmuka
84.     const userMessageElement = document.createElement('div');
85.     userMessageElement.classList.add('chat-message', 'bg-primary', 'text-white', 'p-2', 'mb-
    2', 'rounded', 'ml-auto');
86.     userMessageElement.textContent = userMessage;
87.     chatBox.appendChild(userMessageElement);
88.
89.     chatSession.push({ message: userMessage, sender: 'user', timestamp: Date.now() });
90.
91.     chatBox.scrollTop = chatBox.scrollHeight;
92.

```

```

93.     if (!userName) {
94.         if (['tidak', 'ga', 'siapa', 'g', 'kepo'].includes(userMessage.toLowerCase())) {
95.             userName = 'anonim';
96.             const nameConfirmationMessage = 'Terima kasih. Ada yang bisa saya bantu?';
97.
98.             const nameConfirmationElement = document.createElement('div');
99.             nameConfirmationElement.classList.add('chat-message', 'bg-light', 'p-2', 'mb-2', 'rounded');
100.            nameConfirmationElement.textContent = nameConfirmationMessage;
101.            chatBox.appendChild(nameConfirmationElement);
102.
103.            chatSession.push({ message: nameConfirmationMessage, sender: 'system', timestamp: Date.now() });
104.            chatInput.value = '';
105.        } else if (/^[a-zA-Z\s]+$/i.test(userMessage)) {
106.            userName = userMessage;
107.            const nameConfirmationMessage = `Terima kasih, ${userName}. Ada yang bisa saya bantu?`;
108.
109.            const nameConfirmationElement = document.createElement('div');
110.            nameConfirmationElement.classList.add('chat-message', 'bg-light', 'p-2', 'mb-2', 'rounded');
111.            nameConfirmationElement.textContent = nameConfirmationMessage;
112.            chatBox.appendChild(nameConfirmationElement);
113.
114.            chatSession.push({ message: nameConfirmationMessage, sender: 'system', timestamp: Date.now() });
115.            chatInput.value = '';
116.        } else {
117.            const invalidNameMessage = 'Maaf, saya tidak mengenali nama tersebut. Bisa tolong ulangi?';
118.            const invalidNameElement = document.createElement('div');
119.            invalidNameElement.classList.add('chat-message', 'bg-light', 'p-2', 'mb-2', 'rounded');
120.            invalidNameElement.textContent = invalidNameMessage;
121.            chatBox.appendChild(invalidNameElement);
122.
123.            chatSession.push({ message: invalidNameMessage, sender: 'system', timestamp: Date.now() });
124.            chatInput.value = '';
125.        }
126.    } else {
127.        // Periksa apakah pesan adalah ungkapan terima kasih
128.        const thankYouPatterns = [
129.            'terima kasih', 'makasih', 'thanks', 'thank you', 'mksh', 'thx', 'tq', 'tnks', 'tq'
130.        ];
131.
132.        if (thankYouPatterns.some(pattern => userMessage.toLowerCase().includes(pattern))) {

```

```

133.     const thankYouReply = 'Sama-sama! Kami senang bisa membantu Anda.';
134.
135.     const thankYouElement = document.createElement('div');
136.     thankYouElement.classList.add('chat-message', 'bg-light', 'p-2', 'mb-2', 'rounded');
137.     thankYouElement.textContent = thankYouReply;
138.     chatBox.appendChild(thankYouElement);
139.
140.     chatSession.push({ message: thankYouReply, sender: 'assistant', timestamp: Date
        .now() });
141.
142.     chatBox.scrollTop = chatBox.scrollHeight;
143.     chatInput.value = '';
144.     resetChatTimeout();
145.     return; // Keluar dari fungsi sendMessage setelah merespon terima kasih
146. }
147.
148. // Kirim pesan ke OpenAI jika bukan ungkapan terima kasih
149. const assistantReply = await sendToOpenAI(userMessage);
150.
151. const assistantMessageElement = document.createElement('div');
152. assistantMessageElement.classList.add('chat-message', 'bg-light', 'p-2', 'mb-
    2', 'rounded');
153. assistantMessageElement.textContent = assistantReply;
154. chatBox.appendChild(assistantMessageElement);
155.
156. ★ chatSession.push({ message: assistantReply, sender: 'assistant', timestamp: Date.no
    w() });
157.
158. chatBox.scrollTop = chatBox.scrollHeight;
159.
160. chatInput.value = '';
161. }
162.
163. resetChatTimeout();
164. }
165. };
166.
167. document.addEventListener('DOMContentLoaded', () => {
168.     const chatBox = document.getElementById('chatBox');
169.     const chatInput = document.getElementById('chatInput');
170.     const sendButton = document.getElementById('sendButton');
171.     const newSessionButton = document.getElementById('newSessionButton');
172.
173.     if (!chatBox || !chatInput) {
174.         console.error('ChatBox atau ChatInput tidak ditemukan!');
175.         return;
176.     }
177.
178.     const welcomeMessage = document.createElement('div');

```

```

179. welcomeMessage.classList.add('chat-message', 'bg-light', 'p-2', 'mb-2', 'rounded');
180. welcomeMessage.textContent = 'Selamat datang di layanan asisten virtual Marlindo. Sebe-
    lum kita mulai, bolehkah saya tahu nama Anda?';
181. chatBox.appendChild(welcomeMessage);
182.
183. chatSession.push({ message: welcomeMessage.textContent, sender: 'system', timestamp:
    Date.now() });
184.
185. resetChatTimeout();
186.
187. sendButton.addEventListener('click', sendMessage);
188. chatInput.addEventListener('keydown', (event) => {
189.     if (event.key === 'Enter') {
190.         sendMessage();
191.     }
192. });
193.
194. chatInput.addEventListener('input', resetChatTimeout); // Reset timeout saat mengetik
195.
196. newSessionButton.addEventListener('click', startNewSession);
197. });
198.

```

Lampiran 9 Source code