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<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Happy Bear-thday, Sneha! 🐻</title>
    <!-- Load Tailwind CSS -->
    <script src="https://cdn.tailwindcss.com"></script>
    <!-- Load Inter font for clean readability -->
    <link href="https://fonts.googleapis.com/css2?family=Inter:wght@400;700&family=Caveat:wght@400;700&display=swap" rel="stylesheet">
    <style>
        /* Custom config to make the text feel soft and friendly */
        :root {
            --bear-brown: #964B00;
            --heart-pink: #FF69B4;
        }
        .text-bear-brown { color: var(--bear-brown); }
        .bg-heart-pink { background-color: var(--heart-pink); }
        .font-handwritten { font-family: 'Caveat', cursive; }
        .font-main { font-family: 'Inter', sans-serif; }
    </style>
    <script>
        tailwind.config = {
            theme: {
                extend: {
                    colors: {
                        'cream-bg': '#FFFBF5',
                        'bear-accent': '#C27B42',
                        'love-red': '#F87171',
                    }
                }
            }
        }
    </script>
</head>
<body class="bg-cream-bg font-main text-gray-800">

    <!-- Main Container -->
    <div class="max-w-4xl mx-auto p-4 sm:p-8 lg:p-12">

        <!-- Header and Main Message -->

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<header class="text-center mb-10 p-6 bg-white rounded-3xl shadow-xl border-t-8
border-bear-accent/50">
    <h1 class="text-5xl sm:text-6xl font-extrabold text-bear-accent tracking-tighter mb-2
font-handwritten">
        Happy Bear-thday, My Dearest Sneha! 🎉
    </h1>
    <p class="text-lg text-gray-500 mb-6 italic">A place created just for the most bear-y
wonderful person in my life.</p>

    <!-- Teddy Bear Image Placeholder -->
    <div class="flex justify-center mb-4">
        
    </div>

    <p class="text-xl leading-relaxed text-gray-700 max-w-2xl mx-auto">
        To my amazing 🎀Sneha, you are the sweetest, kindest, and most beautiful person I
know. Every day with you is the greatest gift. I hope this little surprise brings a smile to your face
on your special day. Thank you for being my everything.
    </p>
    <p class="text-xl mt-4 font-bold text-love-red font-handwritten">
        Love, [Aryan]
    </p>
</header>

<!-- Notes Section -->
<section class="mb-10 p-6">
    <h2 class="text-3xl font-bold text-center text-bear-accent mb-8 border-b-2
border-bear-accent/30 pb-3">
        📨 Open the Envelopes! (A Few Bear-y Sweet Notes)
    </h2>

    <div id="notes-container" class="space-y-4">

        <!-- Note 1 -->
        <div class="bg-white p-4 rounded-xl shadow-md transition duration-300
hover:shadow-lg border border-bear-accent/20">
            <button class="w-full text-left flex justify-between items-center py-2
focus:outline-none" onclick="toggleNote(1)">
                <span class="text-xl font-semibold text-bear-accent">🐻 Note 1: My Favorite
Feeling</span>
            </button>
        </div>
    </div>
</section>

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<span class="text-2xl text-love-red transition-transform duration-300 transform"
id="icon-1">+</span>
</button>
<div id="content-1" class="hidden pt-3 border-t mt-3 border-gray-200">
  <p class="text-lg leading-relaxed font-handwritten text-gray-700">
    The best part of my day is just knowing you're mine. You are my sunshine, my
    comfort, and my favorite reason to smile. You make my life feel like the warmest, safest hug.
  </p>
</div>
</div>

<!-- Note 2 -->
<div class="bg-white p-4 rounded-xl shadow-md transition duration-300
hover:shadow-lg border border-bear-accent/20">
  <button class="w-full text-left flex justify-between items-center py-2
focus:outline-none" onclick="toggleNote(2)">
    <span class="text-xl font-semibold text-bear-accent">🎀 Note 2: Bear Hugs &
    Promises</span>
    <span class="text-2xl text-love-red transition-transform duration-300 transform"
id="icon-2">+</span>
  </button>
  <div id="content-2" class="hidden pt-3 border-t mt-3 border-gray-200">
    <p class="text-lg leading-relaxed font-handwritten text-gray-700">
      I promise to always be your safe space. I promise to listen, to cherish, and to
      never stop trying to make you as happy as you make me. Happy Birthday, my love!
    </p>
  </div>
</div>

<!-- Note 3 -->
<div class="bg-white p-4 rounded-xl shadow-md transition duration-300
hover:shadow-lg border border-bear-accent/20">
  <button class="w-full text-left flex justify-between items-center py-2
focus:outline-none" onclick="toggleNote(3)">
    <span class="text-xl font-semibold text-bear-accent">🎈 Note 3: Our Adventure
    Log</span>
    <span class="text-2xl text-love-red transition-transform duration-300 transform"
id="icon-3">+</span>
  </button>
  <div id="content-3" class="hidden pt-3 border-t mt-3 border-gray-200">
    <p class="text-lg leading-relaxed font-handwritten text-gray-700">
      I can't wait for all the new memories we're going to make this year! From silly
      late-night talks to grand adventures, let's keep collecting moments until we're old and grey!
    </p>
  </div>
</div>
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        </div>
    </div>

    <!-- Note 4 -->
    <div class="bg-white p-4 rounded-xl shadow-md transition duration-300
    hover:shadow-lg border border-bear-accent/20">
        <button class="w-full text-left flex justify-between items-center py-2
    focus:outline-none" onclick="toggleNote(4)">
            <span class="text-xl font-semibold text-bear-accent">🍯 Note 4: More Precious
    Than Honey</span>
            <span class="text-2xl text-love-red transition-transform duration-300 transform"
    id="icon-4">+</span>
        </button>
        <div id="content-4" class="hidden pt-3 border-t mt-3 border-gray-200">
            <p class="text-lg leading-relaxed font-handwritten text-gray-700">
                If I had to pick one thing I love most about you, it would be... (Impossible!) But
    seriously, I love your laughter, your determination, and how your eyes light up when you talk
    about something you're passionate about. You are simply perfect.
            </p>
        </div>
    </div>

    <!-- Note 5 (The Birthday Wish) -->
    <div class="bg-love-red/10 p-6 rounded-xl shadow-xl border-4 border-love-red">
        <button class="w-full text-left flex justify-between items-center py-2
    focus:outline-none" onclick="toggleNote(5)">
            <span class="text-2xl font-bold text-love-red">💖 Note 5: All My Heart (Open Me
    Last!)</span>
            <span class="text-3xl text-love-red transition-transform duration-300 transform"
    id="icon-5">+</span>
        </button>
        <div id="content-5" class="hidden pt-4 border-t mt-4 border-love-red/50">
            <p class="text-xl leading-snug font-handwritten text-love-red">
                May your day be filled with all the joy, cake, and love you deserve. You are a
    treasure, Sneha. Happy Birthday from the bottom of my heart. I love you more than words can
    say. <br>
                **Have a magical day!**
            </p>
        <!-- TTS Button Integration -->
        <button id="audio-button"
            onclick="speakBirthdayWish('May your day be filled with all the joy, cake, and
    love you deserve. Happy Birthday from the bottom of my heart, Sneha.')"
            class="mt-4 px-6 py-2 bg-love-red text-white font-bold rounded-full shadow-lg
    hover:bg-love-red/80 transition duration-200 flex items-center justify-center space-x-2">

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        <span>🔊 Hear My Wish (TTS)</span>
    </button>
</div>
</div>

</div>
</section>


<section class="mb-10 p-6 bg-white rounded-3xl shadow-xl border-l-8 border-love-red/50">
    <h2 class="text-3xl font-bold text-center text-love-red mb-6 border-b-2
border-love-red/30 pb-3">
        ✨ Generate a Bear-y Personal Note
    </h2>
    <p class="text-center text-gray-600 mb-4">
        Want one more surprise? Enter a favorite memory or a topic below (e.g., 'our trip to
        the mountains'), and a unique love note will be generated for you!
    </p>

    <div class="space-y-4">
        <input type="text" id="prompt-input" placeholder="e.g., 'our late-night talks'">
            <!-- w-full p-3 border-2 border-bear-accent/30 rounded-lg
            focus:border-love-red focus:ring-1 focus:ring-love-red transition -->
        <button id="generate-note-button"
            onclick="generateLoveNote(document.getElementById('prompt-input').value)"
            class="w-full px-6 py-3 bg-bear-accent text-white font-bold rounded-full
            shadow-lg hover:bg-bear-accent/80 transition duration-200">
            ✨ Generate a New Love Note
        </button>

        <div id="generated-note-box" class="mt-4 p-4 border-2 border-dashed
        border-love-red/50 bg-love-red/10 rounded-xl min-h-[50px] flex items-center justify-center">
            <p id="generated-note-text" class="text-lg font-handwritten italic text-gray-700">
                The perfect note will appear here!
            </p>
        </div>
    </div>
</section>


<footer class="text-center mt-12 p-6 bg-bear-accent/10 rounded-xl shadow-inner">
    <p class="text-lg text-bear-accent font-semibold">Made with all my love, just for you.
    ❤</p>

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</footer>

</div>

<script>
  // --- Gemini API Setup ---
  const API_KEY = ""; // Canvas will provide this key at runtime

  // Helper function to convert base64 to ArrayBuffer
  function base64ToArrayBuffer(base64) {
    const binaryString = atob(base64);
    const len = binaryString.length;
    const bytes = new Uint8Array(len);
    for (let i = 0; i < len; i++) {
      bytes[i] = binaryString.charCodeAt(i);
    }
    return bytes.buffer;
  }

  // Helper function to convert PCM audio data to WAV format
  function pcmToWav(pcmData, sampleRate) {
    const numChannels = 1;
    const bitsPerSample = 16;
    const byteRate = sampleRate * numChannels * (bitsPerSample / 8);
    const blockAlign = numChannels * (bitsPerSample / 8);

    const buffer = new ArrayBuffer(44 + pcmData.length * 2);
    const view = new DataView(buffer);
    let offset = 0;

    // RIFF chunk descriptor
    writeString(view, offset, 'RIFF'); offset += 4;
    view.setUint32(offset, 36 + pcmData.length * 2, true); offset += 4; // ChunkSize
    writeString(view, offset, 'WAVE'); offset += 4;

    // fmt chunk
    writeString(view, offset, 'fmt '); offset += 4;
    view.setUint32(offset, 16, true); offset += 4; // Subchunk1Size (16 for PCM)
    view.setUint16(offset, 1, true); offset += 2; // AudioFormat (1 for PCM)
    view.setUint16(offset, numChannels, true); offset += 2;
    view.setUint32(offset, sampleRate, true); offset += 4;
    view.setUint32(offset, byteRate, true); offset += 4;
    view.setUint16(offset, blockAlign, true); offset += 2;
    view.setUint16(offset, bitsPerSample, true); offset += 2;
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// data chunk
writeString(view, offset, 'data'); offset += 4;
view.setUint32(offset, pcmData.length * 2, true); offset += 4; // Subchunk2Size

// Write PCM data
for (let i = 0; i < pcmData.length; i++, offset += 2) {
    view.setInt16(offset, pcmData[i], true);
}

return new Blob([view], { type: 'audio/wav' });
}

// Helper function for pcmToWav
function writeString(view, offset, string) {
    for (let i = 0; i < string.length; i++) {
        view.setUint8(offset + i, string.charCodeAt(i));
    }
}

// --- LLM GENERATION FUNCTION ---
async function generateLoveNote(prompt) {
    if (!prompt.trim()) {
        document.getElementById('generated-note-text').textContent = "Please enter a word or two about a memory!";
        return;
    }

    const outputElement = document.getElementById('generated-note-text');
    const generateButton = document.getElementById('generate-note-button');

    const originalText = generateButton.innerHTML;

    outputElement.textContent = "Generating a bear-y sweet note... 🌸";
    generateButton.disabled = true;
    generateButton.innerHTML = '<span class="animate-pulse">Loading...</span>';

    const systemPrompt = "You are a warm, romantic, and thoughtful partner writing a short, cute birthday message. Use the provided memory/topic to craft a 1-2 sentence message for a girlfriend named Sneha. The tone must be sweet, teddy-bear themed, and loving. Do not include any prefixes or introductions like 'Here is your message.'";
    const userQuery = `Write a short, cute birthday note for Sneha about: ${prompt}`;
}

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const payload = {
  contents: [{ parts: [{ text: userQuery }] }],
  systemInstruction: { parts: [{ text: systemPrompt }] },
};

const apiUrl =
`https://generativelanguage.googleapis.com/v1beta/models/gemini-2.5-flash-preview-09-2025:generateContent?key=${API_KEY}`;

try {
  let response;
  for (let i = 0; i < 3; i++) { // Exponential backoff retry loop
    response = await fetch(apiUrl, {
      method: 'POST',
      headers: { 'Content-Type': 'application/json' },
      body: JSON.stringify(payload)
    });
    if (response.ok) break;
    if (i < 2) await new Promise(resolve => setTimeout(resolve, Math.pow(2, i) * 1000));
  }

  if (!response.ok) {
    throw new Error(`API request failed with status ${response.status}`);
  }

  const result = await response.json();
  const text = result.candidates?.[0]?.content?.parts?.[0]?.text || "Oops! Couldn't find the perfect words, but my love is still there!";
  outputElement.textContent = text.trim();

} catch (error) {
  console.error("Gemini API Error:", error);
  outputElement.textContent = "Something went wrong while generating the note.  
Please try again!";
} finally {
  generateButton.disabled = false;
  generateButton.innerHTML = originalText;
}

// --- TTS FUNCTION ---
async function speakBirthdayWish(text) {
  const audioButton = document.getElementById('audio-button');
  const originalText = audioButton.innerHTML;

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audioButton.disabled = true;
audioButton.innerHTML = '<span class="animate-pulse">Generating  
Voice...</span>';

const payload = {
  contents: [
    parts: [{ text: `Say with a sweet and gentle tone: ${text}` }]
  ],
  generationConfig: {
    responseModalities: ["AUDIO"],
    speechConfig: {
      voiceConfig: {
        prebuiltVoiceConfig: { voiceName: "Puck" } // Upbeat voice
      }
    }
  },
  model: "gemini-2.5-flash-preview-tts"
};
const apiUrl =
`https://generativelanguage.googleapis.com/v1beta/models/gemini-2.5-flash-preview-tts:generat
eContent?key=${API_KEY}`;

try {
  let response;
  for (let i = 0; i < 3; i++) { // Exponential backoff retry loop
    response = await fetch(apiUrl, {
      method: 'POST',
      headers: { 'Content-Type': 'application/json' },
      body: JSON.stringify(payload)
    });
    if (response.ok) break;
    if (i < 2) await new Promise(resolve => setTimeout(resolve, Math.pow(2, i) * 1000));
  }

  if (!response.ok) {
    throw new Error(`API request failed with status ${response.status}`);
  }

  const result = await response.json();
  const part = result?.candidates?.[0]?.content?.parts?.[0];
  const audioData = part?.inlineData?.data;
  const mimeType = part?.inlineData?.mimeType;

  if (audioData && mimeType && mimeType.startsWith("audio/L16")) {

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const sampleRateMatch = mimeType.match(/rate=(\d+)/);
const sampleRate = sampleRateMatch ? parseInt(sampleRateMatch[1], 10) :
16000;

const pcmData = base64ToArrayBuffer(audioData);
const pcm16 = new Int16Array(pcmData);
const wavBlob = pcmToWav(pcm16, sampleRate);
const audioUrl = URL.createObjectURL(wavBlob);

const audio = new Audio(audioUrl);
audio.play();

audioButton.innerHTML = '🔊 Playing Wish...';

// Reset button text after audio finishes playing
audio.onended = () => {
    audioButton.innerHTML = originalText;
    audioButton.disabled = false;
};

} else {
    console.error("Invalid TTS response structure or mime type:", mimeType);
    audioButton.innerHTML = '❌ Audio Error';
}

} catch (error) {
    console.error("TTS API Error:", error);
    audioButton.innerHTML = '❌ Audio Failed';
} finally {
    // Ensure button resets if audio fails before playing
    if (audioButton.innerHTML.includes('Generating') ||
audioButton.innerHTML.includes('Failed')) {
        audioButton.innerHTML = originalText;
        audioButton.disabled = false;
    }
}
}

/***
 * Simple function to toggle the visibility of the notes (envelope effect).
 * @param {number} id - The ID of the note to toggle (1 to 5).
 */
function toggleNote(id) {

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const content = document.getElementById(`content-${id}`);
const icon = document.getElementById(`icon-${id}`);

if (content.classList.contains('hidden')) {
    // Show content
    content.classList.remove('hidden');
    icon.textContent = '-';
    icon.classList.add('rotate-180');
} else {
    // Hide content
    content.classList.add('hidden');
    icon.textContent = '+';
    icon.classList.remove('rotate-180');
}
}

</script>
</body>
</html>
```