

CSE-AI TY A div

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Assignment 9

Create a Chabot application for any real-world scenario.

Chosen Problem Statement:

Mental health support is often inaccessible or intimidating for many people. BloomBot aims to provide a friendly, comforting chatbot that offers emotional support and positive reinforcement while clearly stating that it is not a real therapist.

Objective:

To develop a simple, supportive, and age-appropriate chatbot using Google Gemini and Streamlit that helps users feel better through empathy, humor, and motivation.

Requirements:

- A valid **Gemini API key** from Google AI Studio
- Internet connection
- Python environment

Operating System:

Compatible with Windows, macOS, or Linux (any system that supports Python 3.9+)

Libraries and Packages Used:

- `streamlit` – for building the web interface

- `google-gemini` – to connect and interact with Gemini API
- `google.gemini.types` – for handling chat content and structured responses

Theory:

A chatbot is an AI system designed to simulate conversation with humans. By integrating natural language understanding models (like Google Gemini), the chatbot can generate context-aware, supportive, and safe responses. Streamlit is used to create a simple, interactive, and relaxing user interface that runs in the browser.

Definition:

BloomBot is a friendly, age-aware chatbot that provides emotional comfort, jokes, and motivational messages. It uses Gemini's text-generation capabilities to craft responses tailored to the user's age group and conversation tone.

Structure:

1. **User Interface (Streamlit):** Input box, buttons ("Make me laugh", "Say something nice", "Motivate me"), and age selection.
2. **Backend Logic:** Gemini API processes user input and generates an appropriate response.
3. **Response Display:** Streamlit updates the chat area dynamically and stores conversation history.

Methodology:

1. Accept user input and selected age group.
2. Construct a prompt that ensures age-appropriate, positive replies.
3. Send this prompt to the Gemini model via API.
4. Display the AI's generated message and append it to the chat history.

5. Provide instant mood-boosting responses through quick-access buttons.

Advantages:

- Provides emotional support in a non-judgmental way.
- Tailors tone and language to different age groups.
- Easy to run — no complex setup or backend.
- Visually relaxing, simple Streamlit interface.
- Safe design — reminds users that it's a bot, not a therapist.

Uniqueness:

This chatbot blends **empathy + responsible AI** by offering comfort and positivity while maintaining clear ethical boundaries. It's not just another "AI friend" — it's an **age-aware digital companion** that supports users gently and safely.

Limitations:

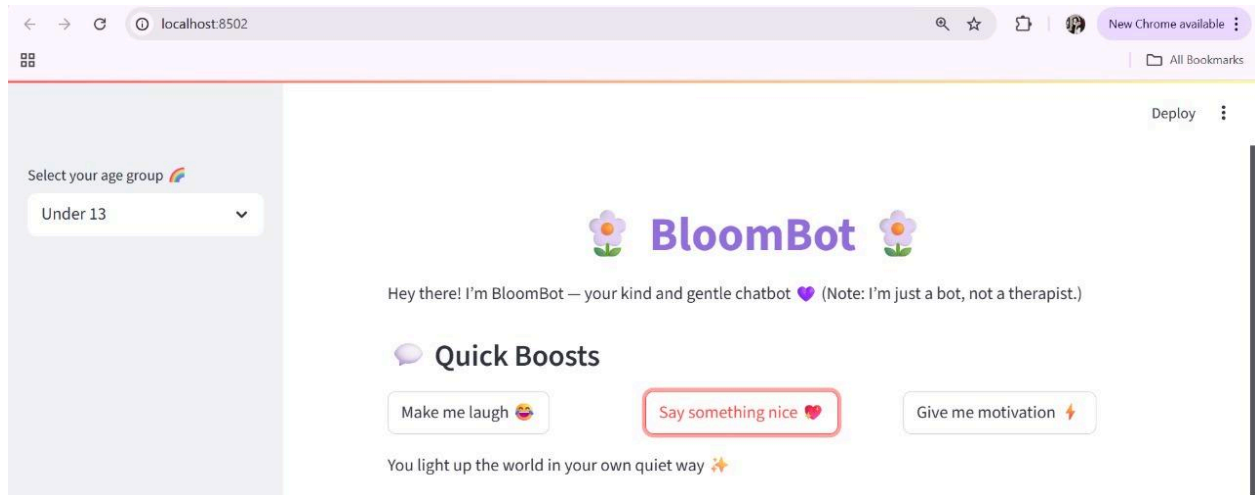
- Cannot replace real therapy or professional help.
- Relies on internet access and valid API key.
- Limited to text-based conversation only (no voice or emotion recognition).

Working / Algorithm:

1. **Start Streamlit app.**
2. User selects age group and enters a message.
3. Input is formatted into a prompt with age context.
4. Gemini model generates a supportive reply.

5. Reply is displayed, stored in chat history, and optionally followed by motivational snippets.

Screenshots:



Talk to BloomBot

You:

Hey! I feel like life moves really fast lately, help me feel at ease again

BloomBot: Hey, I totally get that feeling. "Life moves really fast" is an incredibly common sentiment, especially when you're in the 19-25 age group. This is a period of massive transition – you might be navigating new career paths, higher education, evolving friendships, living independently for the first time, and constantly bombarded with social media's highlight reels. It's a time of intense growth, which can feel exhilarating but also incredibly overwhelming and fast-paced.

Let's try to bring some ease back into your world. Here are a few thoughts and practical tips:

1. Acknowledge & Validate Your Feelings

- **It's normal:** Seriously, you're not alone. Many, many people in their early to mid-twenties feel this exact way. You're building the foundation for your adult life, and that's a *huge* undertaking.
- **Growth is messy:** This phase is often characterized by trial and error, uncertainty, and learning curves. It's okay to feel a bit lost or overwhelmed by the sheer volume of new experiences.

4. Reconnect with Your Body & Joy

- **Nourish Your Body:** Prioritize sleep (this is HUGE for mental clarity and emotional resilience), healthy food, and regular movement. These are your anchors when life feels chaotic.
- **Revisit Old Hobbies or Find New Ones:** What makes you lose track of time in a good way? What brings you joy purely for the sake of it, without pressure or expectation? Do more of that.
- **Meaningful Connections:** Spend quality time with people who lift you up and make you feel seen and calm. Talk about what you're feeling. They might feel the same way!

This feeling is temporary, and you absolutely have the power to gently steer your ship towards a calmer pace. Be kind to yourself – you're doing great navigating this intense and formative phase of life. Start small, pick one or two things that resonate with you most, and see how they begin to shift your perspective. You've got this.

Show chat history



BloomBot is a supportive AI bot made with Streamlit + Gemini 💜

Conclusion:

BloomBot successfully demonstrates how AI can be used ethically and gently to uplift moods and offer comfort. It provides an accessible way for anyone to experience emotional support through technology while reinforcing safe, positive interaction boundaries.