

# Smart Make-a-thon: A Medical Chatbot for Mental Health

Welcome to the Smart Make-a-thon! Today we're presenting a medical chatbot that aims to provide users with accessible mental health tips. This project is a collaborative effort by students from Vivekanand Education Society's Institute of Technology .

The logo for 'Mindcare' is centered within a large, thin, light-yellow circular border. The word 'Mindcare' is written in a light-yellow serif font. A stylized leaf icon, also in light-yellow, is positioned above the 'c' in 'Mindcare', with its stem extending upwards and to the right, partially overlapping the letter 'd'.

Mindcare

# Problem Statement: AI-Powered Mental Health Companion

**Problem ID:**

PS15

**Track:**

Artificial Intelligence & Machine Learning

**College:**

Vivekanand Education Society's Institute of Technology

You: my day

I'm sorry to hear that your day was really bad. It can be really frustrating when things don't go the way you want them to. If you want to talk about it, I'm here to listen. I can offer some suggestions on how to cope with a bad day, if you'd like. One thing that might help is to try to focus on positive things in your life, no matter how small. It can be helpful to talk to someone you trust about what you're going through. If you're feeling overwhelmed, it's important to seek support. I hope that your day gets better soon.

You: suggest me 2 activities wh

1. Mindfulness Meditation:\*\*

Find a comfortable place to sit or lie down. Close your eyes and focus on your breath. Pay attention to the sensation of air moving in and out of your nose.

When your mind wanders, gently return it to your breath.

Practice for 10-15 minutes daily to cultivate present-moment awareness and reduce stress.

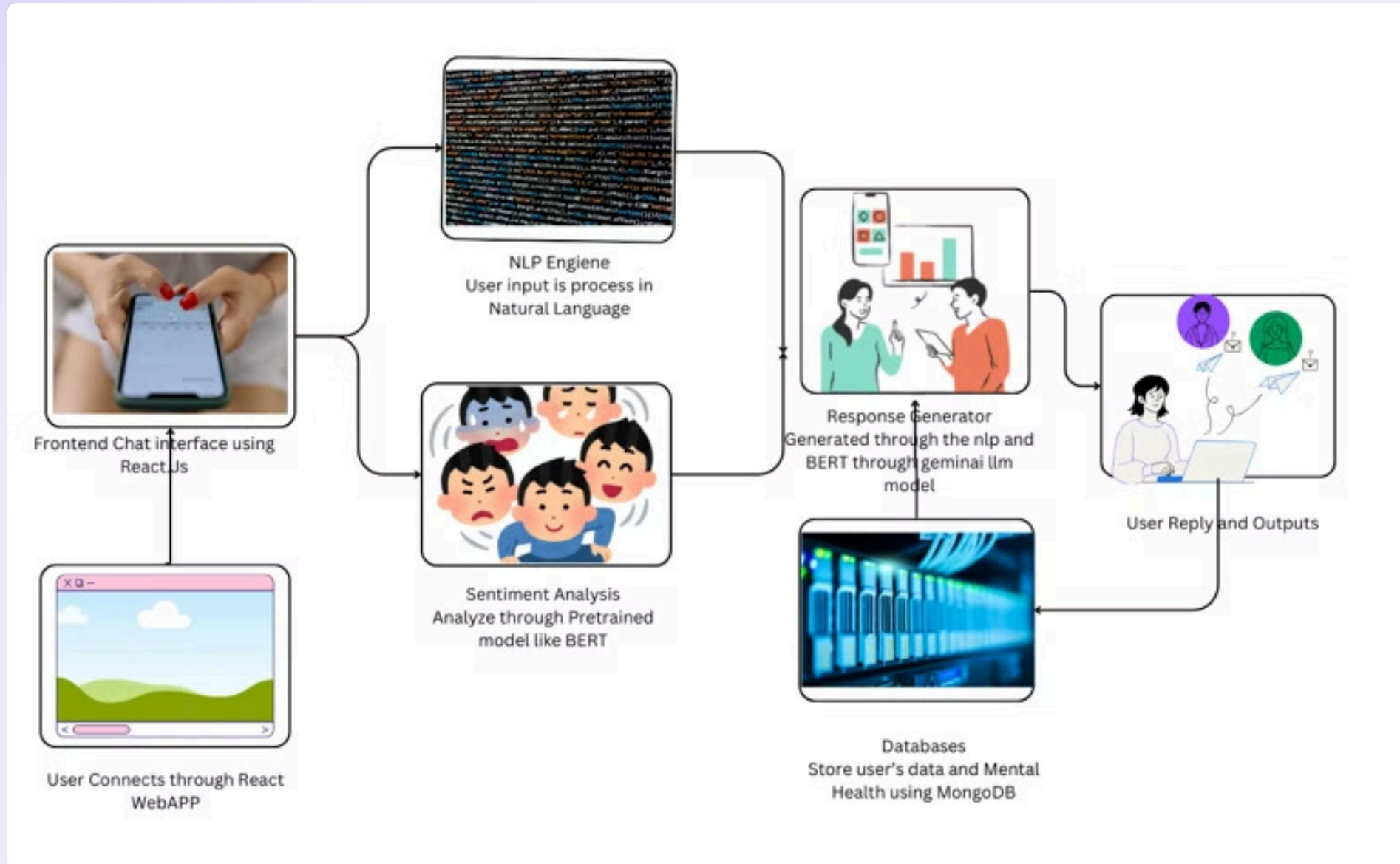
g:

Keep a journal regularly, whether it's daily, weekly, or whenever

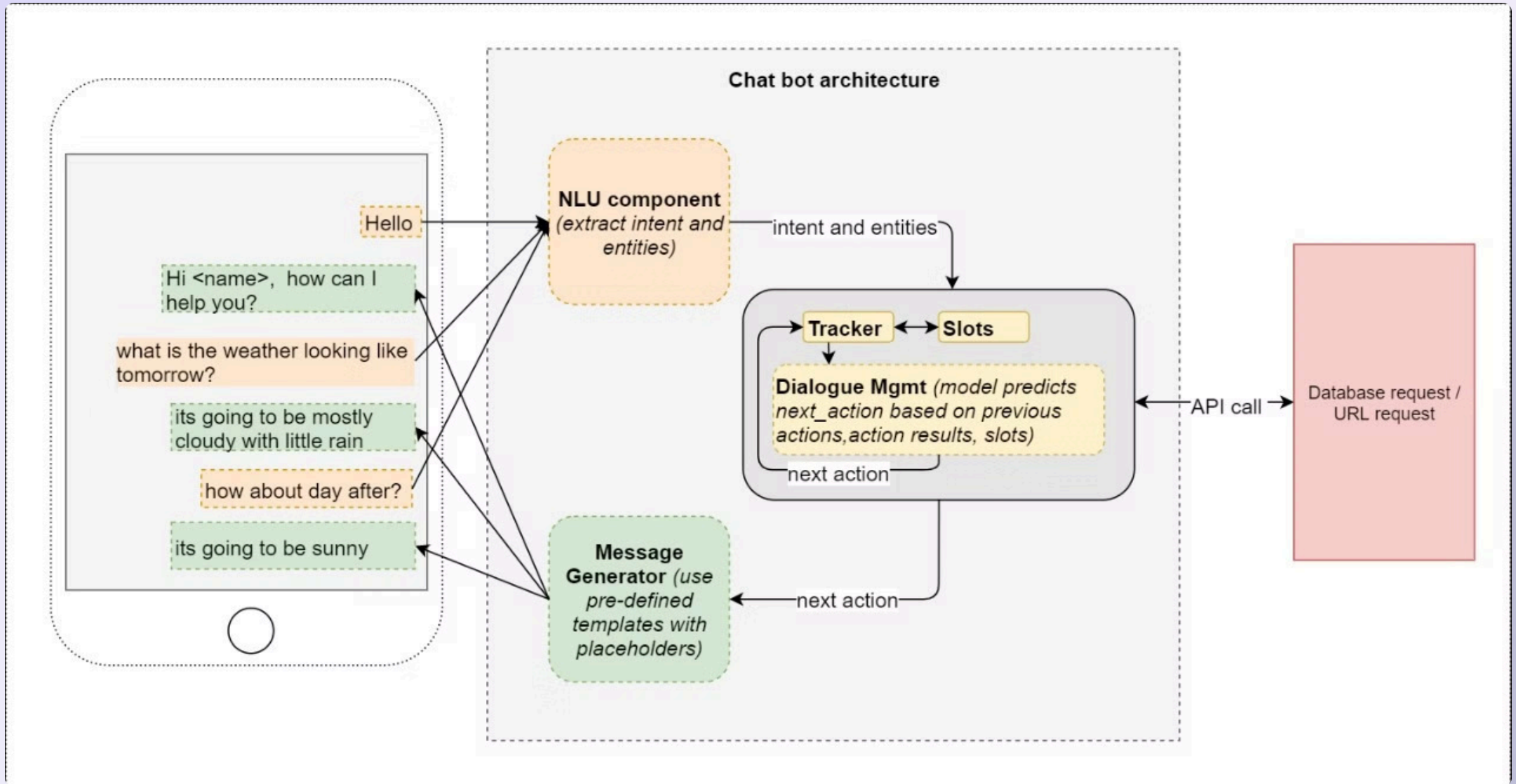
## Proposed Solution: Mindcare

Our Product Mindcare is a chatbot which provides various mental health related tips to the users on the basis of their inputs and also do mood analysis . This helps the people who are not able to communicate to other people but can share their feelings with our chatbot and grow towards a positive life .

# Flowchart of the Chatbot :



# Architecture of the Chatbot :





# Code Implementation :

```
src > App.js > Chatbot
1 import React, { useState, useRef, useEffect } from 'react';
2 import axios from 'axios';
3 import './App.css'; // Your CSS styles here
4
5 // Main Chatbot component
6 function Chatbot() {
7   const [conversation, setConversation] = useState([]);
8   const [inputText, setInputText] = useState('');
9   const [image, setImage] = useState(null);
10  const fileInputRef = useRef(null);
11
12  // Scroll down when new messages are added
13  useEffect(() => {
14    const chatWindow = document.getElementById('chat-window');
15    chatWindow.scrollTop = chatWindow.scrollHeight;
16  }, [conversation]);
17
18  // Function to handle sending messages
19  const sendMessage = async () => {
20    if (!inputText) return;
21
22    // Add user message to the conversation
23    const newConversation = [...conversation, { role: 'User', text: inputText }];
24    setConversation(newConversation);
25
26    try {
27      // Get the bot's response from the API
28      const response = await getGeminiResponse(inputText, image);
29      // Add bot's response to the conversation
30      setConversation([...newConversation, { role: 'Bot', text: response }]);
31    } catch (error) {
32      console.error('Error getting response:', error);
33    }
34  };
35}
```

## Frontend

Technology used : React.Js

```
src > vision.py
1 import google.generativeai as genai
2 from PIL import Image
3 from datetime import datetime
4
5 load_dotenv()
6
7 genai.configure(api_key=os.getenv("GOOGLE_API_KEY"))
8
9 # Initialize Streamlit app
10 st.set_page_config(page_title="Gemini AI Chatbot", layout="centered")
11
12 # Function to get responses from Gemini API
13 def get_gemini_response(question, image=None):
14   model = genai.GenerativeModel('gemini-pro-vision' if image else 'gemini-pro')
15   if image:
16     response = model.generate_content([question, image])
17   else:
18     response = model.generate_content(question)
19   return response.text
20
21 # Chat bubble style
22 def display_message(role, message):
23   if role == "User":
24     st.markdown("""
25     <div style="text-align: right; background-color: #DCE7FC; padding: 10px; border-radius: 10px; margin: 10px 0; max-width: 80%; float: right;">
26       <div>You:</div>
27     </div>
28     """, unsafe_allow_html=True)
29   else:
30     st.markdown("""
31     <div style="text-align: left; background-color: #FFF9C4; padding: 10px; border-radius: 10px; margin: 10px 0; max-width: 80%; float: left;">
32       <div>Bot:</div>
33     </div>
34     """, unsafe_allow_html=True)
```

## Backend

Technology used : Python with Flask to integrate frontend and backed

```
src > App.css > chat-window
1 /* Apply a calming pastel theme with a background image */
2 .chat-container {
3   max-width: 600px;
4   margin: 0 auto;
5   padding: 20px;
6
7   text-align: center;
8   background-color: #f0f0f0; /* Slight transparency */
9   border-radius: 10px;
10  box-shadow: 0 4px 8px #ccc; /* Subtle background blur effect */
11  backdrop-filter: blur(10px);
12 }
13
14 /* Title styling */
15 h2 {
16   color: #4682b4; /* Calm olive green color */
17   font-family: 'Verdana', sans-serif;
18   font-size: 24px;
19 }
20
21 /* Chat window styling */
22 .chat-window {
23   border: 1px solid #ddd; /* Soft neutral color */
24   border-radius: 10px;
25   padding: 10px;
26   height: 400px;
27   overflow: auto;
28   display: flex;
29   flex-direction: column;
30   background-color: #fff9c4; /* Warm pastel background */
31   box-shadow: inset 0 0 0 #ccc;
32 }
```

## Styling Part of Frontend Page

Technology used : CSS3 , Bootstrap

# Demo of the Chatbot :

Link of video :

[New video by Sanika Jadhav](#)

# Impacts and Benefits

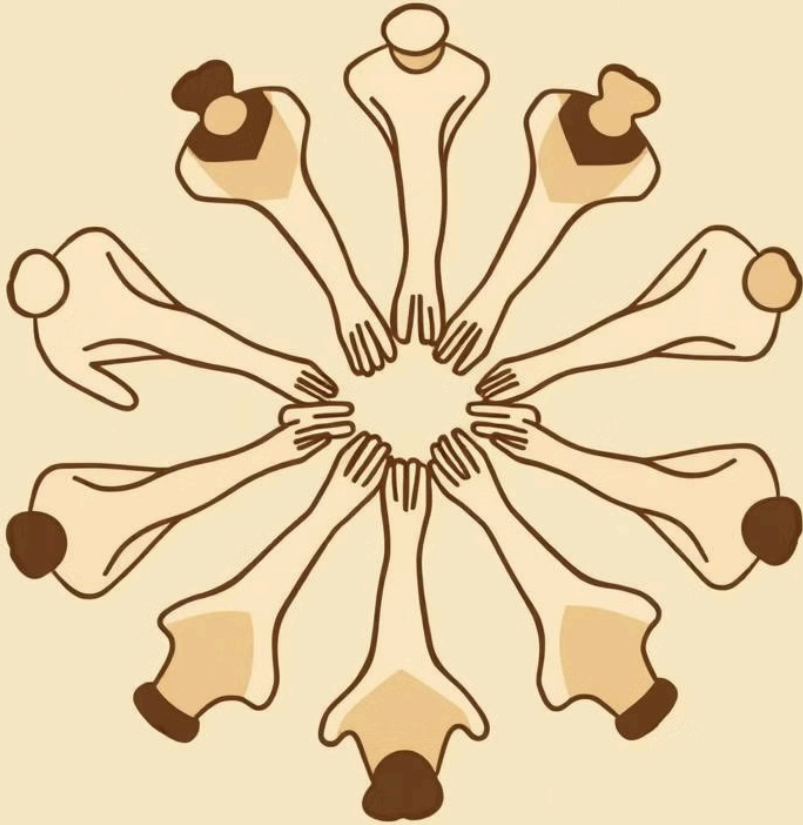
## Impacts :

- **Better Access to Mental Health Help:** The AI chatbot gives people quick and easy access to mental health support, especially for those who can't go to therapy or get help easily.
- **Early Signs of Mental Health Issues:** By understanding what users say, the chatbot can spot early signs of stress, anxiety, or depression and encourage users to seek further help if needed.
- **Reducing the Mental Health Stigma:** Talking to a chatbot can make people feel more comfortable discussing their emotions and mental health privately, helping reduce the fear or embarrassment around it.

## Benefits :

- **Always Available:** The chatbot is available 24/7, so users can get support anytime they need it, day or night.
- **Affordable Support:** For those who can't afford therapy, the chatbot provides a free or cheap way to manage mental health regularly.
- **Private and Anonymous:** Users can talk to the chatbot without revealing their identity, which makes it easier for those who are shy or uncomfortable to get help.
- **Quick Stress Relief:** The chatbot provides instant tips and techniques, like breathing exercises or mindfulness activities, to help people relax and feel better in the moment.





## Conclusion: Towards a More Supportive Future

This project provides a valuable contribution to the growing field of mental health technology. The chatbot offers a user-friendly and accessible platform for accessing mental health tips and resources. It has the potential to significantly impact individual well-being and promote a more supportive and informed approach to mental health.