

YEAR

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Mental Health AI ChatBot

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Agenda

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Objective

Our objective is to develop a DBMS-powered Mental Health ChatBot catering specifically to the emotional needs of 18-25-year-olds facing depression. By curating an authorized database rooted in reputable psychological studies, this ChatBot aims to provide tailored guidance and support, utilizing data-backed insights to help individuals navigate and overcome their depressive feelings effectively.

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Target Audience

This ChatBot is designed for young adults aged 18-25 dealing with varying degrees of depression. It caters to those comfortable with technology seeking a confidential, judgment-free platform to address their mental health concerns, providing accessible and trustworthy support when needed the most.

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Goals

Provide personalized, evidence-backed advice to ease depression, fostering a user-friendly, safe space for open conversation. Continuously updating our database with the latest psychological insights enhances the ChatBot's ability to guide users through emotional challenges effectively.

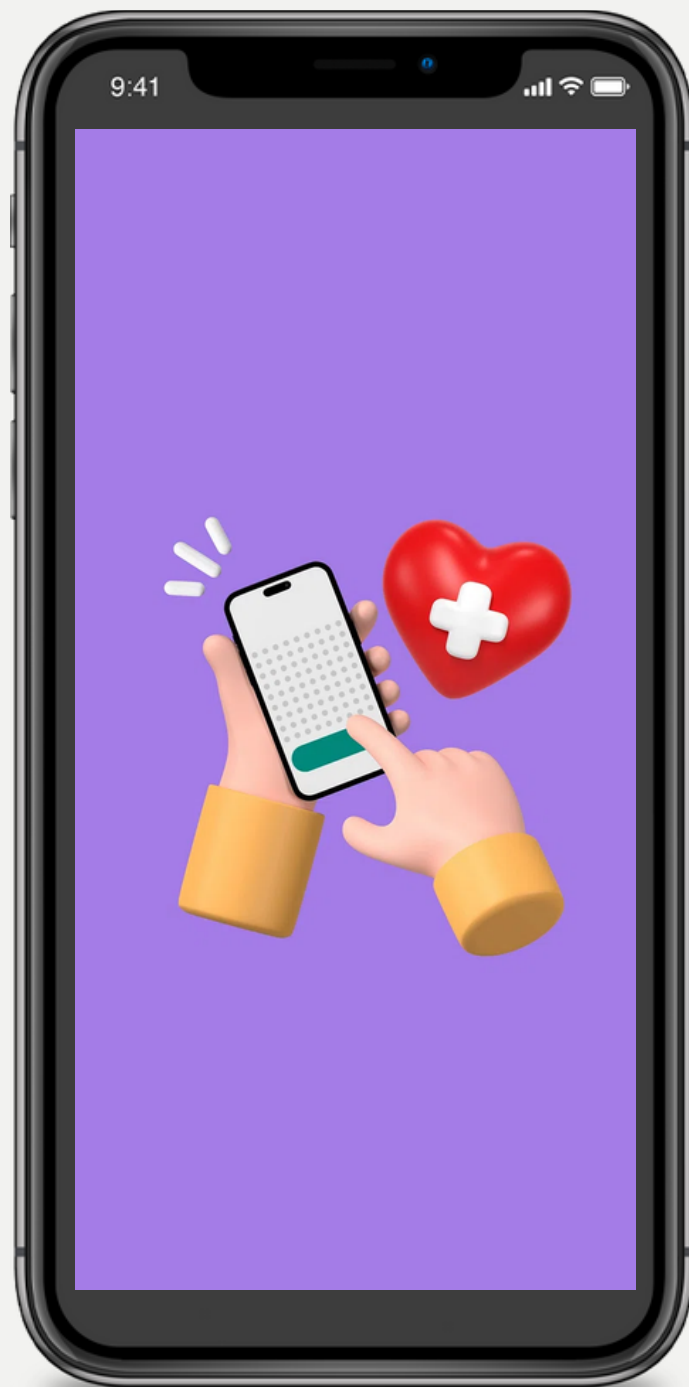
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Features

The ChatBot features AI-driven conversations, offering real-time, personalized support. It accesses an authorized database from validated studies for accurate guidance, prioritizing user confidentiality. Regular updates integrate new research, enhancing its effectiveness in offering relevant coping strategies.

ABEL JACOB:

Project Study



Existing Chatbots:

- Woebot: Utilizes cognitive-behavioral therapy techniques.
- Wysa: Incorporates evidence-based therapeutic techniques.
- Replika: Aims to enhance users' well-being through interactive dialogue.

Limitations:

- Limited tailored support.
- Challenges in gauging and responding to emotions.
- Struggles with crisis situations.
- User worries about data confidentiality.

Proposed Chatbot:

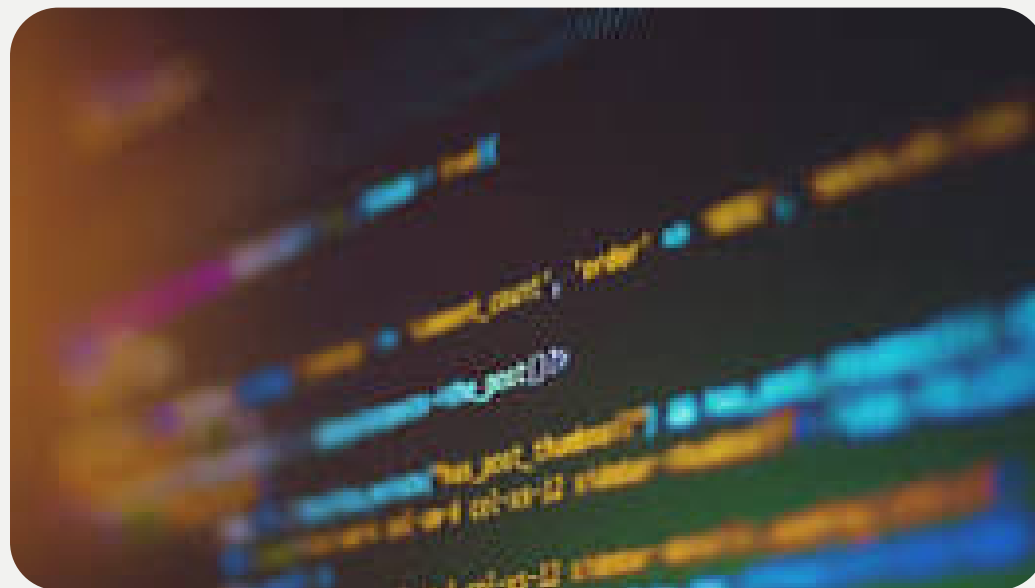
- Empathetic responses based on emotional context.
- Tailored support adapting to user preferences.
- Identifying distress signs and guiding to emergency services.

Benefits:

- Improved responses, fostering a supportive environment.
- Tailored suggestions for a user-centric experience.
- Ensures proper handling of urgent situations.
- Robust security for user privacy and confidentiality.

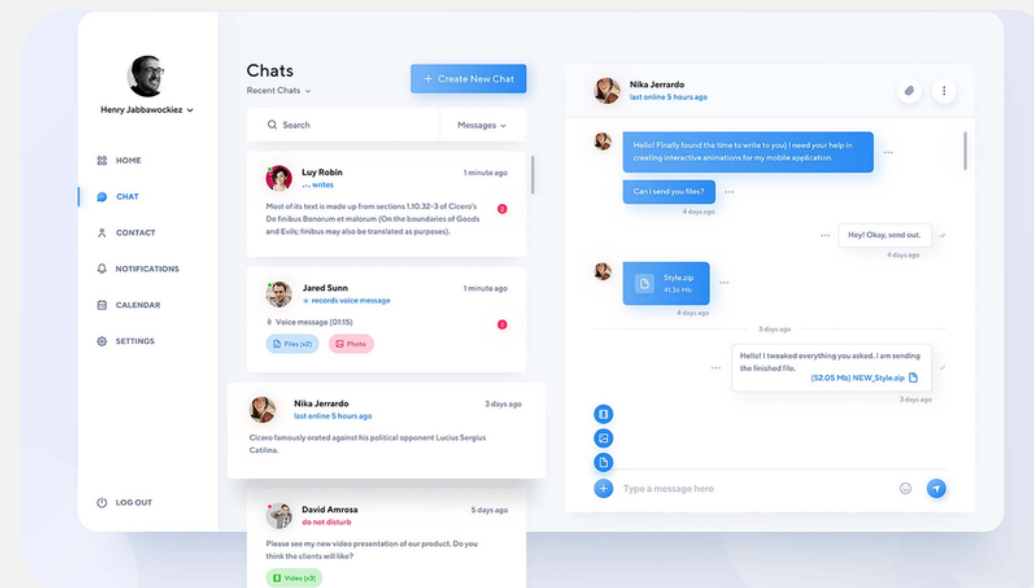
AVIJEET EMMANUEL ROY:

FRONT END



Chat Interface:

Will be designed to facilitate natural, real-time conversations, offering a user-friendly chatbox layout that allows individuals to interact comfortably. It will employ emotive responses, enabling the ChatBot to understand and respond empathetically to users' emotions, providing tailored guidance.



Customizable features:

will allow users to personalize their experience, adjusting communication styles and language preferences. A feedback mechanism will be integrated for users to offer input, aiding in continuous improvement of the ChatBot's support and suggestions.



Authentication & Security:

Authentication and Security measures will include a secure login system to protect user data and ensure personalized interaction. Robust data encryption methods will be employed to safeguard sensitive user information, with anonymity features available to create a safe space for seeking help without judgment.

AVIJEET EMMANUEL ROY:

Back End



DBMS:

- Establish a well-structured database schema to store user profiles, conversation logs, and authorized data obtained from psychology studies. This design should enable efficient data retrieval and management.
- **Data Storage:** Utilize a robust DBMS (such as MySQL, PostgreSQL, or MongoDB) to securely store and manage data while ensuring scalability and performance.



APIs and Integrations:

- Develop APIs to integrate authorized data sourced from psychology studies and scholarly research into the ChatBot's database. These APIs will allow seamless access to verified information for providing accurate guidance.
- **Front-end Connectivity:** Create APIs to facilitate communication between the front-end interface and the backend system, enabling real-time interaction and data exchange.



Natural Language Processing (NLP):

- **NLP Integration:** Implement NLP algorithms and tools (like NLTK, spaCy, or TensorFlow) to enable the ChatBot to comprehend user queries and respond appropriately. This involves sentiment analysis to understand emotions conveyed in messages.
- **Machine Learning Models:** Train machine learning models to enhance the ChatBot's ability to analyze user sentiment, detect patterns, and provide personalized suggestions based on psychological insights.

Functions of our Chatbot

What It Does:

1. Shares Info and Tips:

- Gives accurate info on mental health.
- Shares practical tips for handling emotions.

2. Listens and Supports:

- Understands and responds to your feelings.
- Offers a friendly ear and caring responses.

3. Urgent Help in Crisis:

- Knows when things are tough and guides you to urgent help.
- Connects you to emergency services if needed.

4. Personalized Chats:

- Learns what you like and respects your privacy.
- Talks to you in a way that suits you best.

5. Recommend Useful Stuff:

- Suggests mental health tools that might help.
- Gives you local resources for support.

How It Works:

1. Understands Feelings:

- Figures out how you're feeling using smart tech.
- Talks to you with care and understanding.

2. Keeps Your Info Safe:

- Makes sure your personal info stays private and secure.
- Lets you know it's committed to keeping things confidential.

3. Help in Urgent Times:

- Knows what to do in tough situations and guides you.
- Helps you connect with emergency services when it's really necessary.

4. Gets Better with Time:

- Learns from how you talk and adjusts to you.
- Tries to make every chat fit you better.

5. Gives You Local Tips:

- Recommends things based on where you are.
- Shares info and resources relevant to your location.



Thank You