



# Mental Health Counseling

## Team Members:

Saikrishna Thatikonda

Rasagna Prathipati

Lipi Akter

Vinesh Vangapandu



- ❑ **Problem Statement:** We are planning to develop a web application for mental health counseling with the help of AI chatbot to understand their mental health condition and connect with experts.
- ❑ **Target Market:** Everyone who is suffering from the mental health problems especially for are students in school and university.
- ❑ **Value Proposition:** Easy accessibility of web application, affordable and personal to everyone with in their own comfort and convenient.

# Key Winning Features



## ✓ **Anonymous and Confidential**

The chatbot will provide a safe and anonymous environment for user to discuss their mental health concerns ensuring privacy and confidentiality

## ✓ **Self-Help Resources**

Our chatbot will provide a self-help resources, such as articles, videos and podcasts on mental health and wellness.

## ✓ **24/7 Availability**

Providing users with access to basic counseling service at anytime, day or night without need to wait for availability.

## ✓ **Progress Tracking**

Regular checking on the client either through mail or mobile number if he is doing fine. Also, by providing insights and suggestions.

## ✓ **Cost-Effective**

Using chatbot we can provide counseling service at a lower cost compared to traditional in-person counseling.

## ✓ **Referral to Human Counselors**

Our AI chatbot will refer users to human counselors if we detect any concerning symptoms or behaviours.

# Key Winning Capabilities

## Natural Language Processing(NLP)

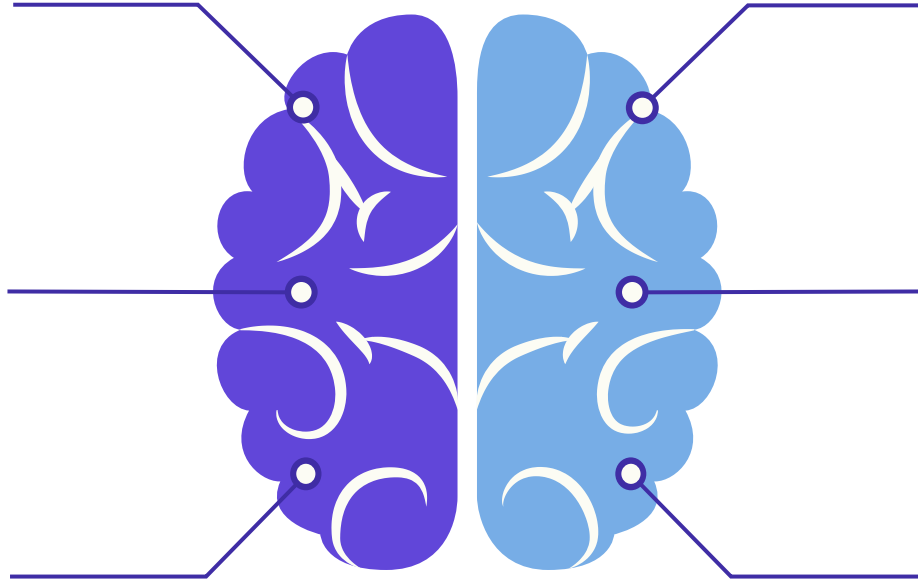
Our bot will understand users messages and respond appropriately using NPL techniques.

## Symptom Checker

Our bot will create solid conversation to understand their mental health symptoms and provide appropriate resources or referrals based on their responses.

## Risk Assessment

Able to detect any concerning symptoms or behaviours and refer users to human counselors.



## Resource Library

Providing mental health resources, such as articles, videos, and blogs, that can help users understand their mental health condition and learn to cope up and self care strategies.

## Appointment Scheduling

Users can schedule appointments with mental health professionals at their convenience.

## Chat History

Storing the chat history of the respondents to have a better interacting everytime users logs back in.

# Justifications

## **Addressing the Increasing Demand for Mental Health Services**

There is a growing demand for mental health services, and the COVID-19 pandemic has further highlighted the need for accessible mental health services. Our application using chatbot will help meet this demand and provide support to individuals who might not otherwise have access to mental health services.

## **Innovation in MH services**

A platform that helps the user to communicate which is integrated with the chatbot that can create a unique and accessible user experience .

## **Filling the Gap in Mental Health Services**

Many individuals do not have access to mental health services due to various reasons, such as lack of resources, time constraints, or stigma associated with seeking help. Our application can help fill this gap and provide accessible mental health services to individuals who need them.

## **Promoting Mental Health Awareness**

With our application we can help raise awareness about mental health and the importance of seeking mental health support. By providing resources and support, our application can encourage individuals to prioritize their mental health.

# Plan for Designing the chatbot

## The scope and purpose

We are specifically looking to provide support on guidance, screening for mental health issues by identifying the target audience and their needs.

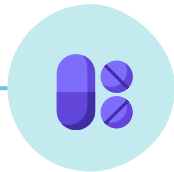
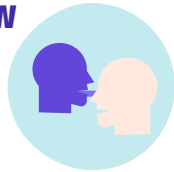


## Training the chatbot

Designing the chatbot to recognize and respond to a variety of mental health concerns and issues. Using natural language processing (NLP) and machine learning (ML) algorithms we try to improve the accuracy and relevance of responses.

## Developing a conversation flow

We are building a conversation flow that allows the chatbot to interact with users in a natural and helpful way.



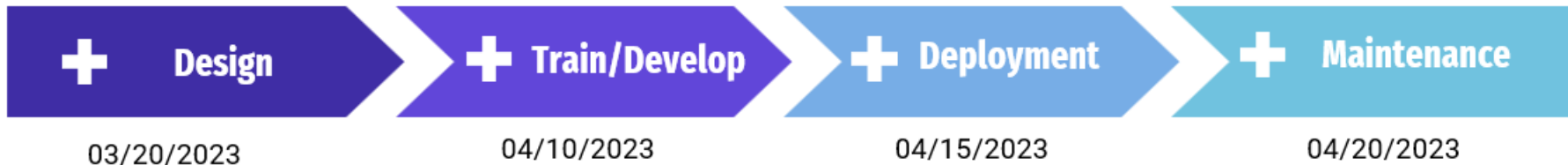
## Testing and refining

Testing the chatbot with a variety of users inputs to build user friendly interface and improve its functionality over time.

# Conclusion/Plan for Implementation Phase

- The programming and scripting languages we are going to use to design our project are HTML, CSS, JavaScript, Python and SQL.
- We plan to use React JS for designing the UI of our project, i.e., frontend. We will use Python with Machine Learning and NLP to train the chatbot to respond to the medical mental issues with the help of Bert NLP model. And we are also planning to use Google Dialog Flow which is an NLP based conversational AI chatbot to train agent by creating intents, entities and responses.
- To train the chatbot, we are using a dataset consisting of the questions, answers, related links, type of illness, category with the related topic, etc.
- We plan to use Python Flask to design our backend and SQLite to maintain the database.
- We are planning to deploy our project on Heroku to access, run it and use it.

## Deadlines





Thank You  
**Team MHC**