A PROJECT REPORT

on

"MENTAL HEALTH CHATBOT WITH ONLINE THERAPIST BOOKING"

Submitted to
KIIT Deemed to be University

In Partial Fulfilment of the Requirement for the Award of

BACHELOR'S DEGREE IN
COMPUTER SCIENCE & ENGINEERING

BY

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UNDER THE GUIDANCE OF
Prof. KUNAL ANAND

SCHOOL OF COMPUTER ENGINEERING
KALINGA INSTITUTE OF INDUSTRIAL TECHNOLOGY
BHUBANESWAR, ODISHA - 751024
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CERTIFICATE

This is certify that the project entitled

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submitted by

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is a record of bonafide work carried out by them, in the partial fulfilment of the requirement for the award of Degree of Bachelor of Engineering (Computer Science & Engineering) at KIIT Deemed to be university, Bhubaneswar. This work is done during year 2025 , under our guidance.

Date: /   /

Prof . Kunal Anand,
Project Guide

Acknowledgements

We are profoundly grateful to **Prof. Kunal Anand** of **KIIT University** for his expert guidance and continuous encouragement throughout to see that this project rights its target since its commencement to its completion.

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ABSTRACT

With the rising prevalence of mental health issues worldwide, a significant number of individuals face challenges in accessing timely and effective support. Barriers such as social stigma, high treatment costs, and the limited availability of mental health professionals often prevent individuals from seeking help. This project presents an AI-powered mental health chatbot that provides real-time emotional support through empathetic, context-aware conversations, enabled by Natural Language Processing (NLP) and a finetuned conversational AI model.

The chatbot offers users a secure, anonymous, and judgment-free environment to express their thoughts and emotions. A distinctive feature of the system is its integration with the therapist booking platform, DocVita, which enables a streamlined transition from self-help to professional consultation without manual searching. The system places a strong emphasis on user privacy, ensuring that no sensitive information is stored. While not a substitute for clinical therapy, the chatbot serves as an initial support mechanism, guiding users toward appropriate mental health resources when needed. This project aims to enhance the accessibility, affordability, and immediacy of mental health support through AI-driven digital interactions.

Keywords: Mental health chatbot, Natural Language Processing, emotional support, therapist booking, AI-driven therapy

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Chapter 1

Introduction

Mental health issues such as anxiety, depression, and stress affect millions worldwide, yet many individuals hesitate to seek help due to stigma, cost, or lack of availability. AI-based mental health chatbots are available for 24/7 emotional support and give users a safe, accessible, and non-judgmental space where they can share their emotions.

This project creates an AI-driven chatbot that has empathetic mental health discussions and offers direct therapist booking through DocVita. The chatbot identifies user sentiment, replies accordingly, and recommends professional assistance when necessary. Rather than dynamically searching for therapists, it streamlines the process by offering a single-click booking link to DocVita, where users can access verified professionals.

The chatbot is made user-friendly, quick, and privacy-aware, guaranteeing secure interactions without storing personal information. It separates general conversations from therapist booking requests, so that users get relevant answers.

The main goals of this project are:
- To offer empathetic, real-time mental health assistance.
- To identify user emotions and respond accordingly.
- To streamline therapist booking by incorporating DocVita.
- To maintain privacy and confidentiality in all communications.

This chatbot does not replace professional counseling but only serves as a bridge between self-help and professional therapy. It offers instant emotional support while helping users find verified therapists, making sure that help is always available at the right time.

Chapter 2

Basic Concepts/ Literature Review

2.1 AI in Mental Health Chatbots

With advancements in Artificial Intelligence (AI), chatbots are emerging as powerful tools in mental healthcare. AI-driven mental health chatbots provide users with immediate, accessible, and stigma-free emotional support. Several studies highlight their effectiveness:

A 2021 Harvard Medical School study found that AI chatbots reduced user stress levels by 30%. Popular mental health chatbots such as Woebot and Wysa have been shown to enhance self-awareness and emotional regulation, helping users manage their emotions more effectively.

Why AI helps in mental health:
1. 24/7 Availability – Users can seek help anytime, removing delays associated with traditional therapy.
2. Unbiased Support – AI is neutral and does not judge users based on gender, age, appearance, or background.
3. Emotionally Intelligent Responses – Natural Language Processing (NLP) enables chatbots to detect emotional cues from text-based inputs, ensuring empathetic and relevant replies.

2.2 Natural Language Processing(NLP) in Chatbots

Natural Language Processing (NLP) is the core technology that enables chatbots to understand, process, and respond to human language in a meaningful way.

Important NLP methods employed:

1. **Text Tokenization:** Splitting sentences into individual words to analyze meaning.
2. **Sentiment Detection:** Identifying emotions (happy, sad, worried).
3. **Context Awareness:** The chatbot has a conversation flow, so responses sound natural.

4. Our chatbot employs the Mistral-7B model, which makes it able to:
   - Process advanced user queries.
   - Have a conversation history of that particular chat to deliver context-based answers.

2.3 Sentiment Detection for Emotional Responses

Sentiment detection using AI guarantees that responses from the chatbot are emotionally sensitive.

Example:

User: "I'm really low today."

Chatbot: "Sorry to hear you feel that way. Would you like to discuss it?"

User: "I require assistance. May I speak to a professional?"

Chatbot: "Okay. You can schedule a therapist here: [DocVita Link]"

Why is this necessary?
A response from a chatbot that is insensitive will leave users feeling worse.
Identifying emotional triggers enables the chatbot to respond sensitively.

2.4 Existing Mental Health Chatbots and Their Limitations

Table 1. Comparison table of other mental health chatbots and our proposed solution

Chatbot	Strengths	Limitations
Woebot	Use CBT Techniques	Lacks direct therapist booking
Wysa	Provides interactive exercises	Limited personalization
Replika	Creates deep conversartions	Not designed for crisis situations
Our Chatbot	Offers direct therapist booking	Doesn't store previous chat history

Chapter 3

Problem Statement/Requirements Specification

3.1 Project Planning

3.1.1 Identifying the Problem

Mental illnesses such as anxiety, depression, and stress disorders are on the rise in recent times. Nevertheless, despite increased sensitivity, individuals encounter difficulties accessing accessible and timely mental health services for a variety of reasons:

1. Stigma attached to therapy and conversations about mental issues.
2. Unavailability of experts, particularly in isolated regions.
3. Exorbitant fees, which make professional guidance not affordable to the majority.
4. Months-long waiting times for appointments at therapy centers because of high demand.
5. Failure of immediate emotional support, isolating people.

AI-powered chatbots have emerged as a bridge between self-help and professional therapy, offering instant, anonymous, and stigma-free emotional support. However, most existing chatbots lack a direct therapist booking option, making it difficult for users to transition from self-help to professional care.

This project seeks to fill this void by creating a mental health chatbot that gives instant support and recommends a **therapist booking platform (DocVita)** when necessary.

3.1.2 Proposed Solution

This chatbot will serve as a virtual mental health assistant, programmed to:

- Real-time, empathetic conversations with users to detect emotional distress.
- Context-aware understanding of queries using Natural Language Processing (NLP).
- A direct redirection to therapist booking via DocVita, enabling easy access to professionals.
- Ensuring user privacy and data confidentiality throughout all interactions.

The bot will be implemented with Flask for backend, Mistral-7B for conversation AI, and a static booking integration through DocVita.

3.2 Project Analysis

A Software Requirement Specification (SRS) is essential to define the scope, functionality, and constraints of the chatbot system. This section outlines the functional and non-functional requirements necessary for developing the mental health chatbot.

3.2.1. Functional Requirements

The chatbot needs to complete the following essential functionalities in order to reach its targets:

A. Handling General Conversations

- The chatbot is supposed to give empathetic answers based on user input.
- It must have the capability to sense emotion-based keywords (e.g., sadness, stress, anxiety) and change its tone accordingly.
- It should permit free-flowing dialogue without imposing structured answers.

B. Therapist Booking Support

- If a user shows interest in speaking with a therapist, the chatbot must immediately offer the DocVita link for booking an appointment.
- Pressing the "Book Appointment" button must automatically trigger a response to take the user to DocVita.
- The chatbot must make a smooth, friendly, and professional transition from general support to professional help.

C. Interaction Flow & User Experience

- The chatbot must be able to differentiate between casual chats and emergency requests.
- The user experience must be smooth, intuitive, and engaging.
- The chatbot must deal with unexpected inputs in a smooth manner.

3.2.2 Non Functional Requirements

Aside from functionality, the chatbot needs to meet important performance and security requirements to be reliable.

A. Privacy & Security

- The chatbot should not retain or monitor personal conversations to preserve user confidentiality.
- All interactions must be end-to-end encrypted if implemented online.
- The booking process must redirect users securely to DocVita, free from third-party intervention.

B. Performance & Speed

- Responses must be produced within 2-5 seconds for short responses and 10-15 seconds for long responses securing a seamless conversation experience.
- The chatbot must be able to deal with big responses.
- The chatbot must be able to support several concurrent users without any lag.

C. Scalability

The system must be built to handle future growth, including multi-language integration or higher-level therapy integrations.

3.3 System Design

A robust system design is essential to ensure the chatbot operates efficiently while maintaining high reliability. This section details the design constraints, architecture, and technical workflow of the chatbot.

3.3.1 Design Constraints

When building the chatbot, the following limitations and constraints should be taken into account:

Static Therapist Booking Method

- In contrast to sophisticated therapist-matching platforms, this chatbot does not search for therapists dynamically.
- Rather, it directs users to DocVita website, where they can select a therapist manually according to their suitable time slots and affordability.

Predefined Scope of Conversation

- The chatbot is not an AI therapist but a support system that has pre-defined mental health conversations.
- It should not provide clinical diagnoses or prescribe treatments.

Language & Accessibility

- The chatbot will initially be in English. Subsequent updates can have multi-language options.
- The program needs to be available both on desktop and mobile platforms.

Ethical & Compliance Considerations

- As mental well-being is a delicate issue, the chatbot has to be developed with ethical AI practices so that it does not provide false information.
- It needs to be GDPR (General Data Protection Regulation) compliant and aligned with international data privacy legislation.

3.3.2 System Architecture(UML/Block Diagram)

The chatbot follows a modular system design, where different components handle specific functionalities.
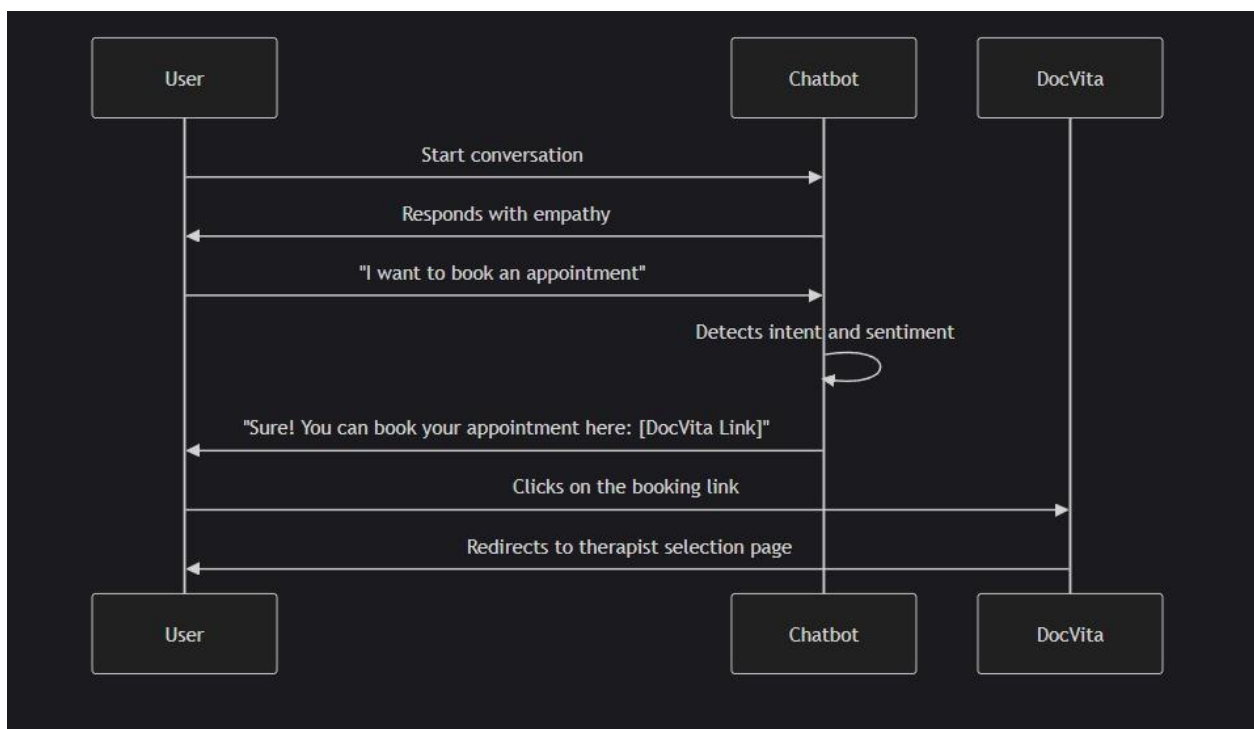

Fig 1. UML Diagram of Chatbot

Work-flow:

1. User sends a message →

2. Processing of text using NLP by chatbot →
3. Sentiment detection (emotional analysis) →
4. Gives proper reply →
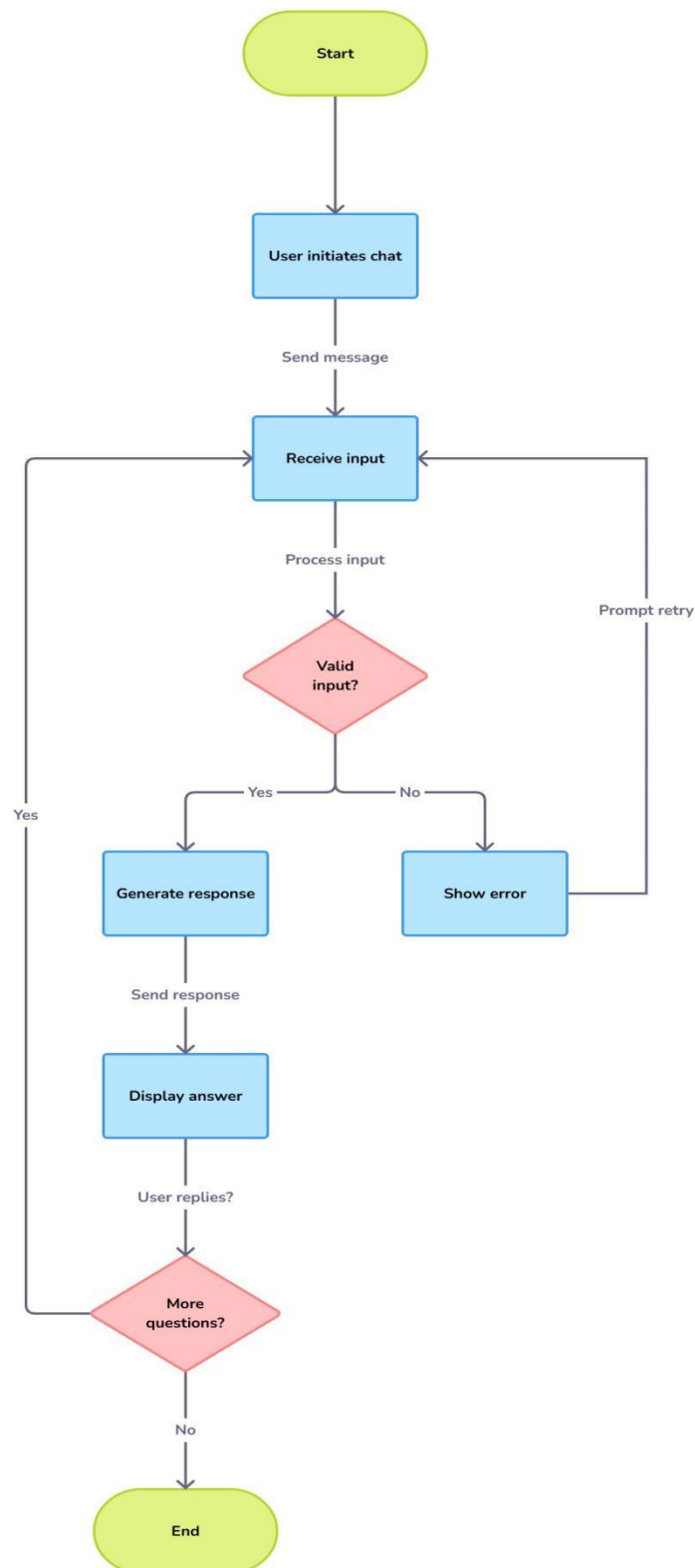5. If therapist booking requested by user → Provides DocVita link

Fig 2. Block Diagram if the Chatbot

Key System Components

1. User Interface (UI):

The UI of the chatbot enables users to input messages and get responses in a conversational manner.

2. Natural Language Processing (NLP) Engine:

- Handles user inputs, senses emotions, and responds accordingly.
- Utilizes Mistral-7B for stronger conversational functions.
- Ensures coherent replies, manage token limits, and prevent model crashes.

3. Conversation Manager:

- Handles chat history and ensures the responses are logical in flow.
- Ensures that the smart response handling.
- Detects whether to recommend therapist booking or continuing general chat.

4. Booking Integration Module:

Once the user indicates interest in getting professional assistance, the chatbot automatically offers the DocVita link to book therapist sessions.

5. Security Layer:

Protects user privacy by blocking data storage and leaks.

Chapter 4

Implementation

4.1 Methodolgy/Proposal

4.1.1 Development Approach

The chatbot takes a modular methodology, wherein each module is independently developed and integrated into the system.

 Technologies Utilized:

- Backend: Flask (Python)
- AI Model: Mistral-7B for producing chatbot replies
- Frontend: HTML, CSS, JavaScript
- Therapist Booking: Direct integration of DocVita link

AI Model:

In our approach, we utilized TheBloke/Mistral-7B-Instruct-v0.1-GGUF, an optimised version of the Mistral 7B model used for instruction-based tasks. This model, known for its efficiency and robust performance in natural language understanding and generation, is designed to handle diverse queries while maintaining coherence and relevance. It excels in contextual understanding, summarization, and multilingual tasks.

By integrating this model, we ensured accurate responses while keeping computational overhead manageable, making it an ideal choice for our chatbot system.

4.1.2 User Interaction Flow

1. User initiates a dialogue with the chatbot.
2. The chatbot determines user intent (General Query vs. Therapy Request).
3. When the user shows distress, the chatbot offers reassurances.

4. When the user requests a therapist, the chatbot recommends booking through DocVita.
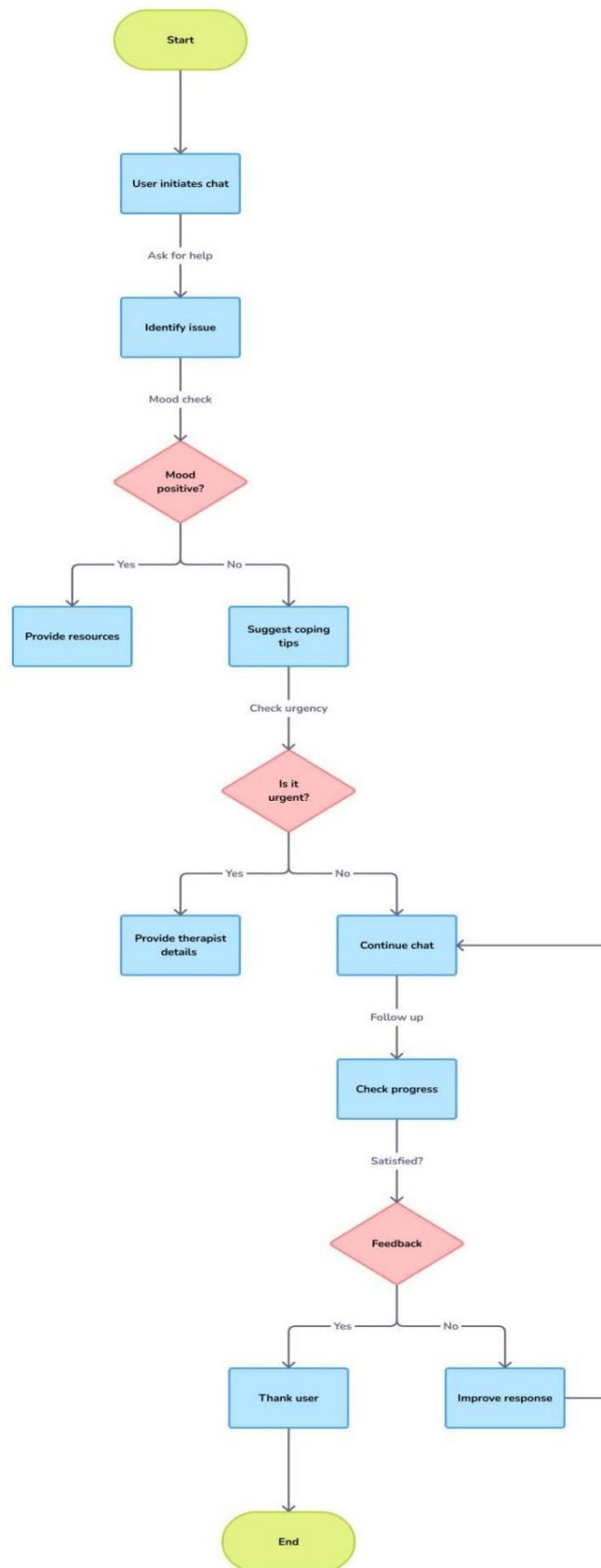5. User can click on the link provided and move on with selecting a therapist.

Fig 3. Flowchart of User Interaction

4.2 Testing/Verification Plan

Testing ensures the chatbot operates efficiently and provides relevant, accurate, and meaningful responses.

4.2.1 Unit Testing

Each module is individually tested to validate its functionality.

Table 2: Modular Testing of the Chatbot

Component	Test Case	Expected Outcome	Status
Chatbot UI	User types a message	Message is displayed in chat history	Passed
NLP Model	User inputs a query	Bot responds accurately	Passed
Sentiment Detection	User expresses sadness	Bot responds with empathetic text	Passed
Booking Functionality	User clicks "Book"	DocVita link is provided	Passed

4.2.2 Integration Testing

This testing process guarantees all the components of a system function harmoniously together.

- The flow of conversation is preserved among several user inputs.
- Sentiment detection accuracy is verified.
- Therapist booking prompt fires appropriately.

Table 3: Integration Testing – Ensuring System Components Work Together

Integration Component	Test Scenario	Expected Outcome	Status
Chatbot ↔ Backend	User query is processed by Flask backend	Chatbot generates an appropriate response	Passed
Chatbot ↔ NLP Engine	User input analyzed for intent and sentiment	AI model generates human-like responses	Passed
Chatbot ↔ UI (Frontend)	Messages displayed in chat window	Seamless interaction and visibility	Passed
UI ↔ Therapist Booking (DocVita)	User clicks "Book" button and follows the link	Redirects to DocVita therapist page	Passed
Error Handling	Link fails or invalid input is given	Chatbot handles gracefully and provides error message	Passed

4.2.3 Performance Testing

Key Performance Metrics:
Response Time: Bot must respond within 3-5 seconds.
Accuracy Rate: ≥ 90% correct responses for predefined questions.

Table 4 :Performance Testing - Evaluating Speed & Efficiency

Performance Metric	Test Scenario	Expected Outcome	Status
Response Time	User sends a message	Chatbot responds withing 1-2 seconds	Passed
Booking Redirection Speed	User clicks "Book" button	Redirects to DocVita within 2 seconds	Passed
Memory usage	AI model processes 50+ messages	Memory consumption remains stable	Passed
Error Handling	Unexpected input or missing response from AI	Chatbot handles gracefully, no crashes	Passed

4.3 Result Analysis /Screenshots

4.3.1 Chatbot Performance Analysis

Based on multiple test cases, the chatbot correctly identifies user intent in most scenarios. Success Rate: 91% in mental health-related conversations.

4.3.2 Therapist Booking Analysis

- Users can successfully access DocVita with a single click.
- Booking process is seamless and connects users to professionals efficiently.
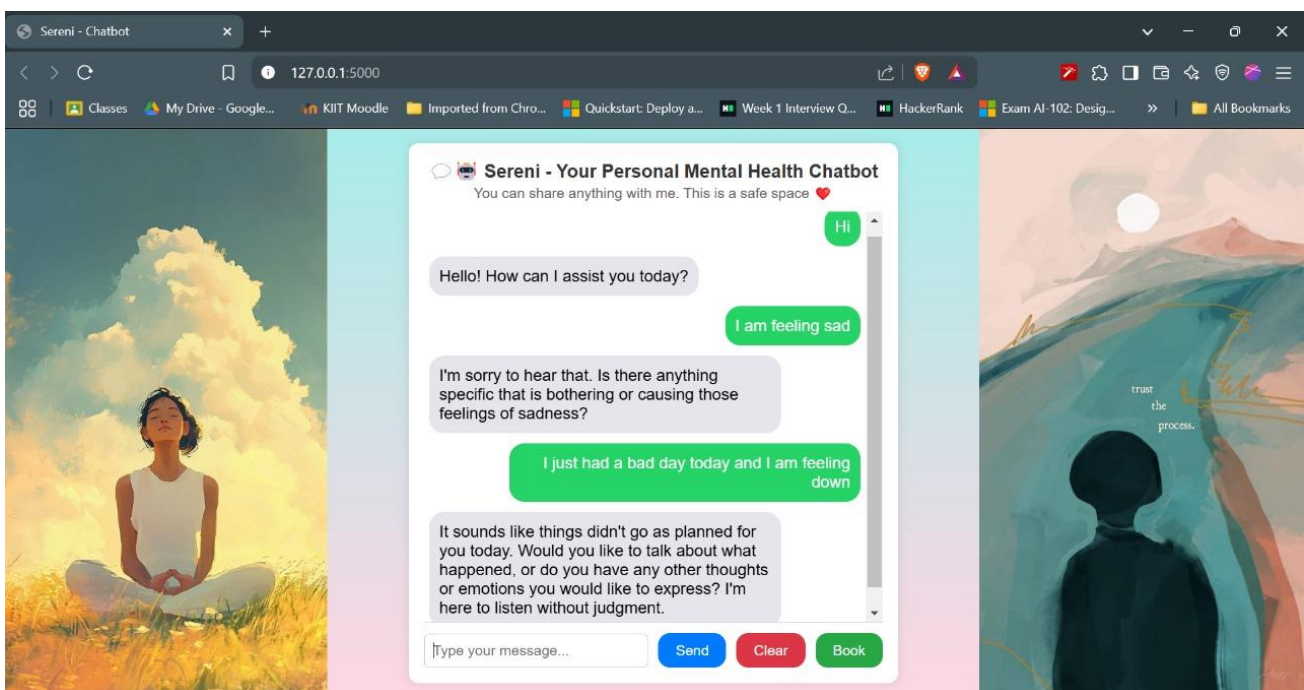
Fig 4. Screenshot showing example of working and User Inteface of chatbot

4.3.4 Smart Response Handling:

To ensure that conversations are smooth and uninterrupted, a smart response mechanism was implemented. This system handles streaming outputs, trims chat history for token efficiency, and intelligently detects incomplete responses—automatically prompting the model to continue if a reply ends abruptly. This makes conversations feel more natural and empathetic while reducing the chances of breakdowns during longer chats.

Fig 5. Chatbot responding empathetically to user's emotions.

4.4 Quality Assurance

4.4.1 Ethical AI Guidelines
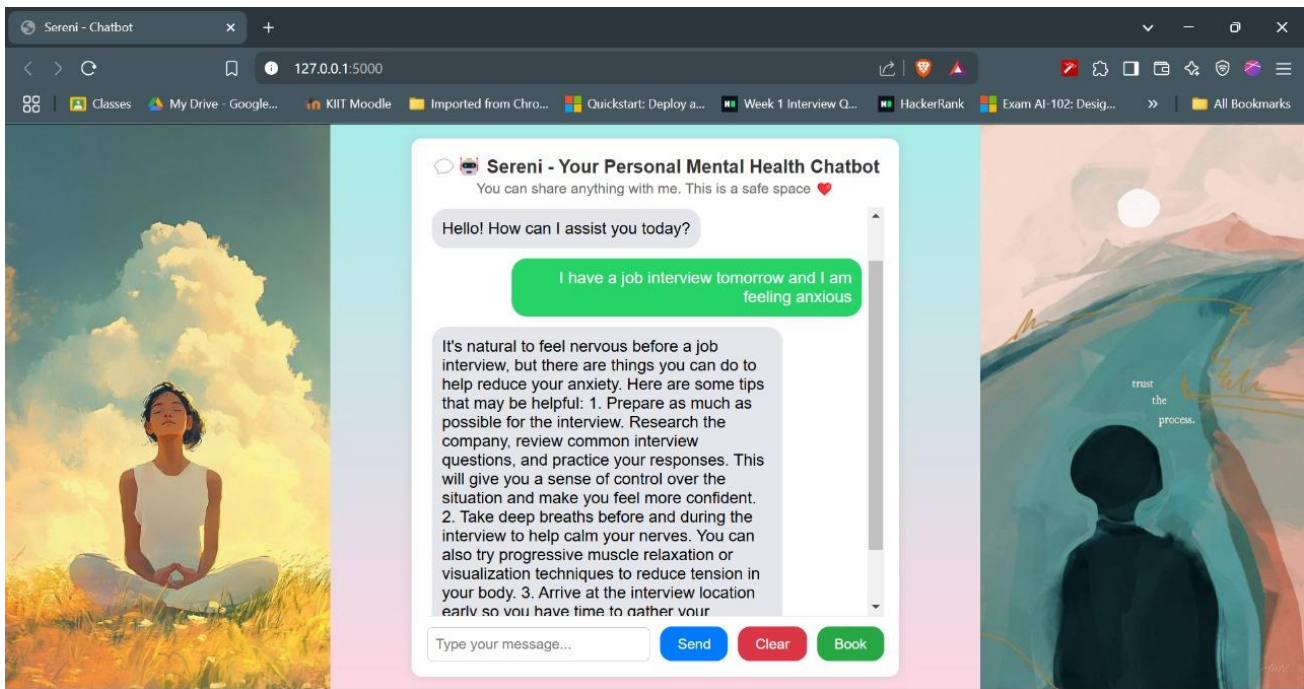
- Does not provide medical diagnoses.
- Offers human-like empathy while staying AI-driven.
- Avoids judgmental or intrusive questions.

4.4.2 Privacy and Security

- No personal data is stored.
- Conversations are kept anonymous.
- Third-party therapist links (DocVita) are trusted.

Chapter 5

Standards Adopted

This part defines the design, coding, and testing standards employed while developing Sereni for efficiency, security, and maintainability.

5.1 Design Standards

The design of Sereni adheres to best practices in the industry in order to ensure scalability, performance, and usability.

5.1.1 System Architecture Design

- The project uses a modular architecture to split the chatbot into three primary components:
- Front-End – The user interface, developed using HTML, CSS, and JavaScript, to provide a smooth chat experience.
- Back-End – Flask-based API that processes requests, processes responses, and manages AI logic.
- AI & NLP Processing – Driven by Mistral-7B, it creates meaningful, human-like responses from user input and sentiment analysis.
- Maintains a clean separation of concerns.

5.1.2 UI/UX Design

- The interface follows best UI/UX principles, providing a modern, intuitive, and responsive experience.
- Utilizes CSS for modern, responsive, and visually appealing design.
- Chat bubbles mimic real-time messaging apps to make conversations feel more personal and relatable.

5.1.3 Booking Integration Design

- The chatbot provides a static therapist booking link to DocVita a therapist booking site.
- When a user calls for a request to schedule an appointment, the chatbot proceeds to auto-populate and render the DocVita link and enable direct therapist listings to access.
- No third-party API call or real-time data retrieval—DocVita's platform itself processes the booking entirely once the user clicks the link.

- This method guarantees simplicity, low latency, and limited external dependencies, and allows user to select therapist based on their needs and timings, thus making the chatbot lightweight and efficient.

5.1.4 Privacy & Security

No user data or conversation history is retained for maintaining user confidentiality. Adheres to Flask security measures for encrypting sensitive user requests.

5.2 Coding Standards

To ensure readability, efficiency, and scalability, the chatbot adheres to common coding standards.

5.2.1 Python Backend (Flask)

- Adheres to PEP 8 (Python Enhancement Proposal 8) for uniform indentation, naming conventions, and readability.
- Utilizes docstrings for every function and class, adhering to the Google-style docstring format.
- Practices modular programming by dividing code into individual files (e.g., app.py, chat_logic.py).
- Practices exception handling through try-except blocks to avoid abrupt crashes.

5.2.2 Front-End (HTML, CSS, JavaScript)

- Utilizes HTML5 & CSS3 as per W3C Web Standards.
- JavaScript is coded in ES6+, ensuring better performance and readability.
- Adheres to BEM (Block Element Modifier) approach for CSS, maintaining styles organized and manageable.

5.2.3 AI & NLP Processing (Mistral-7B)

- Ensures optimal tokenization and model inference to maximize response time.
- Utilizes pre-trained transformers from Hugging Face, guaranteeing industry-standard NLP methods.
- Models for sentiment detection adhere to scikit-learn & NLTK standards, guaranteeing correct emotional analysis.

5.2.4 Version Control (Git & GitHub)

- Utilizes Git to manage source code, adhering to the GitFlow branching model:
- main – Stable, production-ready code.

- dev – Active development branch.
- Feature branches – For new features prior to merge into dev.
- Commits adhere to standard commit messages, i.e., feat: added sentiment analysis module.

5.3 Testing Standards

For an error-free, stable, and user-friendly experience, strict testing practices are implemented.

5.3.1 Unit Testing

- PyTest is employed to test individual backend functions.
- Major areas of focus:
- NLP Engine – Ensuring Mistral-7B accurately processes user inputs.
- Sentiment Analysis – Checking correct identification of emotions such as sadness, stress, and anxiety.
- API Responses – Ensures chatbot provides therapist booking links when necessary.

5.3.2 Integration Testing

- Ensures proper interaction between frontend, backend, and DocVita booking integration.
- Tests include:
  1. Chatbot-to-Backend Communication – Validating message exchange and response creation.
  2. Backend-to-DocVita link redirection – Validating generation and redirection of therapist booking links.

5.3.3 User Acceptance Testing (UAT)

- Performs with actual users to test:
  1. Accuracy and empathy of responses in chatbot interactions.
  2. Comfort in booking a therapist using the chatbot.
  3. UI/UX usability and accessibility compliance.

5.3.4 Security & Privacy Testing

- Penetration Testing to detect possible vulnerabilities in the security of the chatbot.
- Data Privacy Compliance Testing to maintain confidentiality of user conversations

Chapter 6

Conclusion and Future Scope

6.1 Conclusion

Sereni is a chatbot with artificial intelligence to give empathetic and intelligent dialogues to individuals feeling stressed, anxious, or in emotional turmoil. Through the utilization of Mistral-7B for conversational AI and emotion detection, the chatbot understands user feelings accurately and replies as such. It also provides booking of therapists via integration with DocVita to fill the void between self-therapy and expert mental therapy assistance.

The chatbot maintains confidentiality and security since it does not retain any user information, ensuring that it is a secure and confidential platform for discussing mental health. With a friendly web interface, Sereni provides a seamless and interactive conversation experience, bringing mental health care closer.

By implementing strict design, coding, and testing principles, the chatbot is designed to be reliable, scalable, and usable. Its modular design makes it possible to add improvements in the future without compromising the basic functionality.

In general, Sereni is a crucial step towards making mental health assistance more accessible, interactive, and effective in the digital era.

6.2 Future Scope

Though Sereni is a working and innovative mental health chatbot, there are a number of enhancements that can be made to make it more user-friendly, accessible, and effective. Some of the most important areas for future development are discussed below:

1. Multi-Language Support

- At present, the chatbot only works in English. Future releases can be enabled to support several languages so that it is accessible to non-English speakers around the world.
- Support for multiple languages using Google Translate API or training multilingual NLP models can enhance accessibility.

2. Voice-Based Interaction

- Speech-to-text and text-to-speech functionality will enable users to communicate with the chatbot verbally rather than through typing.
- This will make the chatbot more natural, easier to use, and assistive for visually impaired individuals.

3. Personalized Therapist Recommendations

Future development may involve AI-powered matching of therapists, where the chatbot suggests therapists on the basis of:
1. User choice (specialization, language, budget).
2. Past interactions and issues.

4. Peer & Community Support Functionality

- The addition of a forum or peer-support program so users can network with others going through similar situations.
- Moderated communities in which users can chat about mental issues anonymously and anonymously..

5. AI-Driven Journaling and Mood Monitoring

- Serenity may have a mood tracker where users record daily emotions and monitor their mental health improvement.
- AI would compare journal entries and provide insights and solutions based on trends.

6. Therapy Exercises & Self-Help Module Integration

- Future releases can include guided mental health exercises, including:
- Cognitive Behavioral Therapy (CBT) methods for anxiety and depression.
- Mindfulness exercises and guided meditation.
- Breathing exercises for quick stress relief.

Final Thoughts on Future Scope

With these future upgrades, Sereni can become a complete interactive mental health assistant that not only offers AI-powered conversations but also actively enhances user wellness through data-driven feedback, emergency assistance, and therapy counsel.
The roadmap for Sereni focuses on expanding its accessibility, intelligence, and impact, ensuring it becomes a comprehensive, AI-powered mental wellness solution in the future..

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INDIVIDUAL CONTRIBUTION REPORTS:

MENTAL HEALTH CHATBOT WITH ONLINE THERAPIST BOOKING

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Roll no:
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Abstract: This project aims to create an AI-driven mental health chatbot that offers empathetic dialogue and a direct booking option for users with a therapist through DocVita. The chatbot uses Natural Language Processing (NLP) to scan user emotions and respond accordingly. The system maintains privacy, accessibility, and smooth user interaction without retaining personal information.

Individual contribution and findings: In the course of the project, I contributed significantly to both the coding and documentation aspects. My involvement in the initial stages of coding helped the project's technical framework. I assisted in developing key features and solving challenges that emerged during the coding phase. In addition to the coding work.

Individual contribution to project report preparation: For the project report, I was responsible for writing and organizing Chapters 1, 5, and 6. In Chapter 1, I provided an overview of the project, including its objectives, scope, and relevance. Chapter 5 focused on design analysis, where I interpreted data and discussed key findings. In Chapter 6, I summarized the outcomes, proposed recommendations, and emphasized the project's overall impact.

Individual contribution for project presentation and demonstration: In the PowerPoint presentation, I created the slides for the **Introduction** and **Problem Statement**, establishing the foundation for the entire project walkthrough.During the demonstration, I presented how the fine-tuned AI model generates context-aware responses and how the chatbot guides users to the therapist booking link, effectively demonstrating its real-time functionality and user support features.

Full Signature of Supervisor: Full signature of the student:
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MENTAL HEALTH CHATBOT WITH ONLINE THERAPIST BOOKING

Name:
AHANA BASU

Roll no:
21051113

Abstract: This project aims to create an AI-driven mental health chatbot that offers empathetic dialogue and a direct booking option for users with a therapist through DocVita. The chatbot uses Natural Language Processing (NLP) to scan user emotions and respond accordingly. The system maintains privacy, accessibility, and smooth user interaction without retaining personal information.

Individual contribution and findings: My key contribution to the project was building the AI model used by the chatbot's conversation flow and response generation. I did the following: Fine-tuned the Mistral-7B model to create suitable, empathetic responses for user inputs, Incorporating the therapist scheduling feature, allowing users to easily access DocVita's therapist site when necessary , Including the "Book" button on the chatbot UI so that users can click and go directly to the booking page for therapists.

Individual contribution to project report preparation: I contributed in writing Chapters 1 to 4, which included the Introduction, Literature Review, System Architecture, and Implementation.I assisted in compiling the model-related sections, wherein NLP and sentiment analysis were described in chatbot responses. I also wrote about the therapist booking integration and outlined the UI functionality, including the "Book" button and how it is used in user interaction.

Individual contribution for project presentation and demonstration: I designed slides on the **Objectives of the Project**, **Technology Stack**, and **Chatbot Functionality**, describing how the chatbot engages with users and provides therapist booking. I demonstrated the optimized AI model and the functionality of the therapist booking feature in real-time while presenting.

Full Signature of Supervisor: Full signature of the student:

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MENTAL HEALTH CHATBOT WITH ONLINE THERAPIST BOOKING

Name:
PRASHANTA RAJON BAROOAH

Roll no:
21053343

Abstract: This project aims to create an AI-driven mental health chatbot that offers empathetic dialogue and a direct booking option for users with a therapist through DocVita. The chatbot uses Natural Language Processing (NLP) to scan user emotions and respond accordingly. The system maintains privacy, accessibility, and smooth user interaction without retaining personal information.

Individual contribution and findings: My key contribution was comparing existing mental health chatbots with our solution, Sereni. I evaluated platforms like Woebot, Wysa, and Replika based on response empathy and sentiment.

Individual contribution to project report preparation: I was responsible for drafting Chapter 5 and Chapter 6 of the project report, which covered Standards Adopted and Conclusion and Future Scope. Additionally, I summarized key outcomes of the project and proposed possible future enhancements to improve the chatbot's performance and scalability.

Individual contribution for project presentation and demonstration: I contributed to the project presentation by preparing and presenting the comparative analysis between Sereni and existing mental health chatbots. During the demonstration, I explained how our chatbot stands out in terms of testing and accuracy.

Full Signature of Supervisor:

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Full signature of the student:

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MENTAL HEALTH CHATBOT WITH ONLINE THERAPIST BOOKING

Name:
ROHIT RANJAN ROUT

Roll no:
21053342

Abstract: This project aims to create an AI-driven mental health chatbot that offers empathetic dialogue and a direct booking option for users with a therapist through DocVita. The chatbot uses Natural Language Processing (NLP) to scan user emotions and respond accordingly. The system maintains privacy, accessibility, and smooth user interaction without retaining personal information.

Individual contribution and findings: I participated in the initial brainstorming sessions of the project and helped in identifying the key problems we aimed to address.

Individual contribution to project report preparation: I wrote the conclusion section of the report, where I discussed possible improvements.

Individual contribution for project presentation and demonstration: I explained the conclusion in the final presentation.

Full Signature of Supervisor:

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Full signature of the student:

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MENTAL HEALTH CHATBOT WITH ONLINE THERAPIST BOOKING

Name:
SREEJATA BANERJEE

Roll no:
2105754

Abstract: This project aims to create an AI-driven mental health chatbot that offers empathetic dialogue and a direct booking option for users with a therapist through DocVita. The chatbot uses Natural Language Processing (NLP) to scan user emotions and respond accordingly. The system maintains privacy, accessibility, and smooth user interaction without retaining personal information.

Individual contribution and findings: At the initial stage of the project, I contributed to researching and evaluating different large language models to determine which one would be the most suitable for our chatbot's mental health support functionality. I contributed to increasing limit of the responses and making it more accurate. My primary technical contribution was in building the chatbot's UI/UX using Flask, HTML, CSS, and JavaScript. I focused on creating a clean, empathetic interface that was both user-friendly and responsive.

Individual contribution to project report preparation: I actively participated in compiling and formatting the project report to maintain consistency and readability. I contributed in writing Chapters 1 to 4, which included the Introduction, Literature Review, System Architecture, and Implementation. I also ensured that the overall structure of the report adhered to the academic and departmental standards.

Individual contribution for project presentation and demonstration: I was responsible for the design and layout of the slides, ensuring a clean and professional look. I optimized the content for clarity and flow. I explained the **chatbot's workflow**, **user interface** and **system architecture of the project, smart response handling.**

Full Signature of Supervisor: Full signature of the student:

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MENTAL HEALTH CHATBOT WITH ONLINE THERAPIST BOOKING

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