SAMANVAY: MENTAL HEALTH COMPANION

An Engineering Project in Community Service

Phase – II Report

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in partial fulfillment of the requirements for the degree of

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Bhopal
Madhya Pradhesh

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This project report (Phase II) is submitted for the Project Viva-Voce examination held on 10/5/2024

10/5/24

Supervisor

10.05.2024

Comments & Signature (Reviewer 1)

10/05

Comments & Signature (Reviewer 2)

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Declaration of Originality

We, hereby declare that this report entitled **"SAMANVAY: MENTAL HEALTH COMPANION"** represents our original work carried out for the EPICS project as a student of VIT Bhopal University and, to the best of our knowledge, it contains no material previously published or written by another person, nor any material presented for the award of any other degree or diploma of VIT Bhopal University or any other institution. Works of other authors cited in this report have been duly acknowledged under the section "References".

Date: 9/5/24

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Acknowledgement

This work has benefited in various ways from several people. Whilst it would be simple to name them all, it would not be easy to thank them enough for their invaluable contributions.

First and foremost, we extend our deepest gratitude to the students, educators, and parents whose insights, experiences, and feedback have shaped the foundation of this project. Your willingness to engage in open dialogue and share your challenges and triumphs has been instrumental in guiding our efforts towards creating a more supportive educational environment.

We are indebted to the mental health professionals who generously shared their expertise and insights, ensuring that our platform incorporates evidence-based practices and meets the diverse needs of its users. Your commitment to improving mental health outcomes has been a constant source of inspiration.

We also extend our appreciation to the researchers and scholars whose groundbreaking work has paved the way for greater understanding and awareness of mental health issues in academic settings. Your dedication to advancing knowledge in this field has laid a solid groundwork for our project.

While our words may fall short in capturing the depth of our gratitude, please know that your contributions have not gone unnoticed or unappreciated. Together, we stand poised to make a meaningful difference in the lives of those struggling with mental health challenges, and for that, we are eternally grateful.

Abstract

In the present work, we have developed a comprehensive approach to address the pressing mental health challenges faced by students in today's educational institutions. Through extensive research and collaboration with stakeholders, we have designed a user-friendly platform aimed at fostering mental health awareness and resilience.

Acknowledging the prevalence of stress, anxiety, and depression among university students, our platform offers a range of tools and resources, including mood tracking, cognitive behavioral therapy, and guidance on seeking professional help. In addition, we have prioritized data security and privacy, continuous improvement, and impact assessment to ensure the effectiveness and sustainability of our efforts.

By empowering students, educators, and parents to recognize signs of distress and access support, we aim to create a culture of openness and mutual support within educational communities. Through this work, we aspire to promote stronger minds, healthier bodies, and a more inclusive learning environment.

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1. INTRODUCTION

In today's fast-paced world, the pursuit of academic excellence often comes at a cost – the mental well-being of students. The prevalence of stress, anxiety, and depression among university students underscores the urgent need for comprehensive support systems within educational institutions. Recognizing this pressing need, our project endeavors to tackle these challenges head-on by fostering a culture of mental health awareness and resilience.

Motivated by a deep-seated commitment to break down the stigma surrounding mental health and create inclusive spaces for open dialogue, our initiative aims to empower students, educators, and parents alike. By equipping them with the tools to identify signs of distress in themselves and others, we strive to cultivate a community of active agents of change, where mutual support and understanding thrive.

Grounded in extensive research, including findings indicating alarmingly high rates of depression and anxiety among university students, our project recognizes the importance of early intervention and accessible resources. Through a user-friendly platform, we seek to provide holistic support, from mood tracking and cognitive behavioral therapy tools to guidance on seeking professional help.

Our objectives are clear: to reduce stigma, enhance mental health literacy, and facilitate access to resources and support networks. With a steadfast commitment to data security and privacy, continuous improvement, and rigorous impact assessment, our platform is designed to evolve alongside the needs of its users.

Furthermore, our project extends its reach to mental health professionals, offering tools and resources to streamline client management and enhance efficiency in delivering care.

In essence, our project is not merely about addressing the symptoms of mental health challenges; it is about fostering a culture of proactive self-care, empathy, and resilience. Together, let us embark on a journey towards stronger minds, healthier bodies, and a more supportive community.

1.1 Motivation

In today's educational landscape, students face a myriad of challenges, from academic stress to social pressures, highlighting the need for holistic support. Despite increased awareness, the stigma around mental health persists. Our motivation is to break down these barriers and create a safe space for open conversations. By empowering students, teachers, and parents to recognize signs of distress in their peers, students and children respectively, we aim to turn them into active agents of change, fostering a culture of mutual support and understanding. In a study it was found that depression was prevalent in about 48.30% of the students, whereas anxiety was prevalent in 50% of these students, with moderate to severe levels of depression and anxiety existing among university students which can be diagnosed and even treated at home without any professional help at lower stages, or with professional help in the later ones. But, not paying attention to these problems may lead to problem which will affect you physically also. Just like a healthy body is a home for a healthy mind, a healthy mind also tends to a healthy body. Our motivation comes from the will to be healthy, have good mental health, and also make people around us be aware of the way to a healthy mind and body.

1.1 Objective

The project seeks to boost mental health awareness and well-being through a user-friendly platform. Objectives include a stigma-reducing awareness campaign, integration of an intuitive emotional assessment tool, and collaboration with mental health professionals.

The platform will feature mood tracking and Cognitive Behavioral Therapy tools, and guide to professional help for individuals who want to make their mind and body strong and for those also who want their friends and family to be stress free and achieve greater mental health. Ensuring data security and privacy, continuous improvement, and a comprehensive impact assessment are integral components of the project.

The platform will also help professionals in the field to keep track of their clients and make to easier to handle client data and records to further increase their efficiency and ability to help their clients.

2. Existing Work / Literature Review

College represents a crucial developmental period, fraught with numerous challenges across the academic, social and personal domains. Most students successfully overcome these challenges to achieve their potential. However, in a significant proportion, these stressors interact with genetic and psychosocial adversities, increasing the likelihood of mental health issues.

Mental health, encompassing emotional, cognitive, and behavioral well-being, often lacks the attention it deserves, impacting health, social dynamics, economics, and human rights. College students, in their vulnerable transition from adolescence to adulthood, face numerous challenges affecting their mental well-being, such as heredity, academic pressures, and societal changes.

The onset of psychiatric conditions like major depressive disorders, anxiety disorders, and substance use is prevalent during adolescence, with suicide ranking as the third leading cause of death among young adults. In the Indian subcontinent, mental illnesses often go undiagnosed due to stigma and a lack of awareness, with a significant percentage of students suffering from psychological conditions.

College life, though exciting, introduces stressors, exacerbating existing mental health issues. The disparity between the actual purpose of education and its implementation raises concerns about triggering or worsening psychological conditions. The Covid-19 pandemic further intensified mental health challenges, disrupting daily activities, education, and causing economic concerns. Students struggled with the shift to online learning, particularly those from lower socio-economic backgrounds. Fear of academic failure and an uncertain future heightened anxiety and depression, exacerbated by family members contracting the virus.

Stigma, denial of symptoms, and inadequate treatment contribute to the persistence of mental health problems among college students. Alarmingly, a UNICEF survey revealed that only 41% of young people in India seek support for mental health issues, highlighting a critical gap.

Identifying protective factors, early intervention, and treatment are crucial. Sensitizing teachers, conducting workshops, and establishing mental health support in universities can bridge this gap. Collaborative efforts between medical and behavioral health services, facilitated by electronic medical records, can streamline support systems. Creating a safe environment, especially for LGBTQ+ students, is imperative.

Investing in the mental health of young minds is essential for the country's future. Empowering them psychologically through comprehensive support will nurture emotionally stable, healthy, and productive adults.

In response to the escalating concerns of stress and anxiety among students, Indian schools are increasingly recognizing the imperative of prioritizing mental health and wellness. A survey by the National Sample Survey Organization revealed that 10% of school-going children in India grapple with mental health challenges, predominantly linked to exam-related stress. Acknowledging the pivotal role schools play in students' lives, the National Council of Educational Research and

Training (NCERT) recommends the establishment of mental health advisory panels in all schools. This proactive approach underscores the urgency of comprehensive measures to address mental well-being. Schools are integrating mental health programs into their curriculum, engaging with professionals, conducting awareness campaigns, and creating support networks to foster a nurturing environment. This holistic approach not only enhances academic performance but equips students with essential life skills for a successful future, emphasizing the transformative impact of prioritizing student mental health in Indian schools

There are many existing NGOs, which are concerned with these problem and are making an impact on the society by providing help in form of human interaction, free helplines, conducting researches, articles, self-help techniques, stories of hope, school and college programs, campaigns, and many more initiatives.

One such example is LiveLoveLaugh Foundation, a non-profit organization which combines knowledge and domain expertise to create awareness about mental health, reduce stigma associated with mental illness, and provide credible mental health resources. With the help of partnerships and collaborations, it conducts programs and outreaches for providing knowledge and creating awareness about mental health and mental health issues in society. It has conducted various School Programs, College Programs, Research, Campaigns, and is also conducting Rural Programs right now.

There are also various distress helplines, in the form of audio calls, video calls and chat helplines free of cost which employes trained counsellers to help those in need like:

Vandrevala Foundation – It is a non-profit organisation that aims to provide significant funding and aid contributions for those suffering from mental health problems and illnesses in India.

Parivarthan - The Helpline is serviced by trained, professional counsellors who are committed to a rigorously ethical practice and who respect the confidentiality of the callers.

iCALL - They provide professional and free counseling through mediums such as telephone, email and chat to anyone in need of emotional support, irrespective of age, gender, sexual orientation or race, and transcending geographical distances while ensuring confidentiality.

Voice That Cares (ROCF) - Voice That Cares is a free public helpline that provides psychosocial counselling support on a wide range of mental health matters including anxiety, fear, panic attacks, guilt, grief, loneliness, anger, exam stress, pandemic induced psychological issues, stigma, etc.

Lifeline - Lifeline offers a free tele-helpline providing emotional support to people who are in despair, depressed or suicidal.

Fortis - To reaffirm the commitment towards ensuring emotional health and well-being of students at various levels of academics in school.

And many more. While there exists so many services to help mentally stressed individuals, due to lack of awareness and social constructs.

3. Topic of the work

3.1 System Design / Architecture

The architecture of our application is designed in a way that there are as less dependencies as possible, by dividing whole system in different module such that is easy to work separately on each module and then integrate them all at the end for making the application complete.

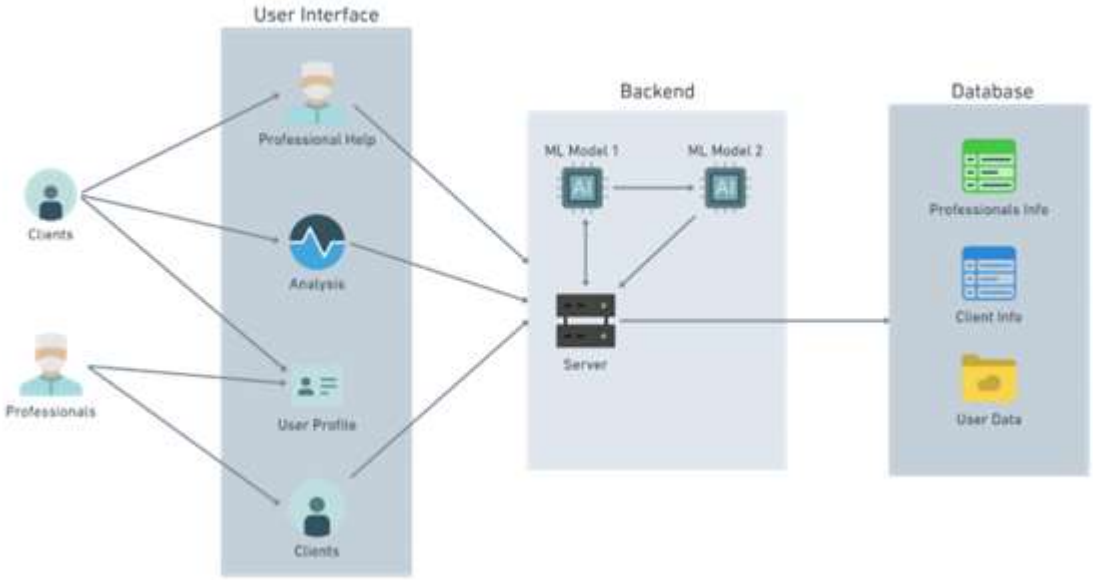

Fig-1

The application is divided into multiple levels of operation(Fig 1) :

User: This section consists for the user of our application, which might be someone who wants to know more about their mental health and make some positive changes, or seek professional help. And it also is a platform for mental health professionals to get clients, appointments, make record of clients, track progress, and many more such features.

User Interface- This section is the initial level of our actual application, where user interacts with the system and gets access to all the feature present.

It has multiple modules like User Profile and Mood Analysis:

User Profile- It is the section of the application which lets the user manage their own information, and also lets them track their activity on the application. For a Client, it allows them to manage their information, know about their appointments, and many more, and for a Professional, it allows them to manage the information to display, manage their clients, and many more.

Mood Analysis- This feature enables users to understand their emotions better and assess if they require professional help. Users can express their feelings through diary entries or written text, which undergo analysis using sophisticated Natural Language Processing (NLP) techniques. The system extracts the percentage distribution of emotions from the text and determines the need for professional intervention based on the severity and urgency of the emotional state.

Backend- At the core of the application, the backend houses the essential logic and functionality. It comprises two key components: the NLP Model and the Classification Model. The NLP Model utilizes advanced algorithms to extract emotional content from user input, while the Classification Model determines the necessity of professional help based on the extracted emotions. A robust server architecture manages data transfer between the User Interface and the database, ensuring smooth communication and system responsiveness.

Database- This section stores all user data, including authentication information, appointment records, and personal details. The database safeguards sensitive information while supporting critical functionalities such as appointment scheduling and user profile management. By securely managing data, the application ensures privacy and confidentiality, complying with data protection regulations.

3.2 Working Principle:

Our application is a platform which makes it easier for the user to become aware and find solutions to mental health related issues. Now there is always a choice to directly to a professional, but in case you want to know more about world of Mental Health and know some basic exercises which are practiced around the world and recommended by professionals for improving mental health, and avoiding problems like stress, anxiety and depression, you can do that with some very easy steps.

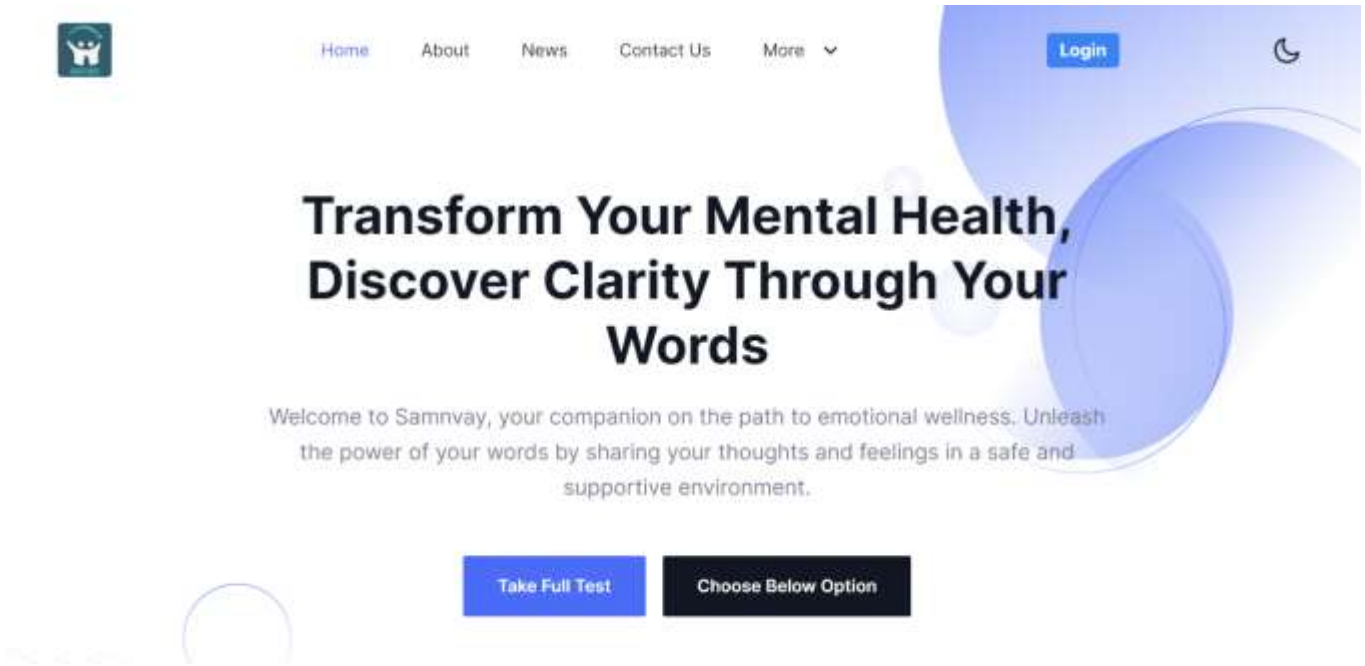

Fig 2

User Login/Signup- There is two categories of users, first one are people who want to learn about mental health, and know their mental health status, and also (if required) seek professional help, second are Professionals, who are experts of their field and ready to help people struggling with their mental health.

Our application provides authentication to both such users and a platform to fulfil their needs in as simple manner as possible.

Above figure (Fig 2) demonstrates the initial page that the user will see, before authentication. And on the top right corner you can see the button to Login which can be use to authenticate the user.

Dairy Entry- Journaling is a method to write down your thoughts, to have more clear understanding of why you have these thoughts. Our application provides a feature to write a Dairy Entry, and further extract data in the form of emotions from it with the help of Machine

Learning Model, and also a chance to figure out, whether you require professional help or not.

Mental Health Professional- The mental health application serves as a comprehensive platform for both users seeking help and professionals providing services, fostering a seamless and effective therapy experience.

For users, the app simplifies the process of finding the right mental health professional by offering a diverse selection based on criteria such as specialty, location, and ratings. Booking appointments is made convenient, with users receiving confirmation notifications and reminders for upcoming sessions. Secure messaging and video call sessions enable continuous communication and remote therapy, ensuring accessibility and flexibility. The app also facilitates record keeping.

For mental health professionals, the app provides tools for efficient client management, appointment scheduling, and secure communication. Professionals can easily track client progress, manage their schedules, and conduct virtual therapy sessions.

Mood Analysis- Our mental health application provides users with a comprehensive journaling feature as explained above, seamlessly integrated with advanced natural language processing (NLP) and machine learning (ML) technology. This digital journal serves as a safe and private space for users to express their thoughts, feelings, and experiences, facilitating self-reflection and emotional exploration.

Upon entering their journal entries, users benefit from the application's sophisticated AI system, which analyzes the text to determine the underlying emotional tone and constitution of each entry. By examining language patterns, sentiment, and contextual cues, the AI model provides valuable insights into the user's emotional state and well-being.

The emotional constitution analysis serves several purposes. Firstly, it enhances users' self-awareness by providing them with a deeper understanding of their emotions. By identifying recurring patterns, triggers, and areas for growth, users can make informed decisions and manage their mental health more effectively.

In essence, the integration of NLP and ML technology enhances the journaling experience within our mental health application, offering users valuable insights, personalized support, and opportunities for growth and self-discovery in their mental health journey.

	precision	recall	f1-score	support
0	0.96	0.95	0.96	1739
1	0.96	0.93	0.95	2028
2	0.80	0.90	0.85	492
3	0.94	0.91	0.92	813
4	0.83	0.94	0.88	712
5	0.92	0.73	0.81	216
accuracy			0.93	6000
macro avg	0.90	0.89	0.90	6000
weighted avg	0.93	0.93	0.93	6000

3.3 Results-

The results of the NLP model show strong performance across multiple evaluation metrics.

For class 0, precision, recall, and F1-score are 0.96, 0.95, and 0.96 respectively, indicating high accuracy in identifying instances of this class. Similar high precision and recall scores are observed for class 1, with values of 0.96 and 0.93, leading to an F1-score of 0.95.

Class 2 exhibits slightly lower precision (0.80) but compensates with high recall (0.90), resulting in a balanced F1-score of 0.85. Class 3 shows strong precision (0.94) and recall (0.91), leading to an F1-score of 0.92.

For class 4, the model achieves a precision of 0.83 and recall of 0.94, yielding an F1-score of 0.88. Class 5, though with fewer instances, maintains respectable precision (0.92) but relatively lower recall (0.73), resulting in an F1-score of 0.81.

The overall accuracy of the model is 0.93, indicating its ability to correctly classify instances across all classes. The macro-average F1-score, calculated as the unweighted mean of the F1-scores for each class, is 0.90, indicating balanced performance across classes. Similarly, the weighted average F1-score, which considers the class distribution, is also 0.93, demonstrating the model's effectiveness in handling class imbalances.

These results suggest that the NLP model performs well in classifying text data into multiple categories, with particularly strong performance in identifying instances belonging to classes 0 and 1, while still maintaining respectable performance across other classes.

3.4 Discussion-

The emotional constitution analysis feature within the mental health application holds significant potential in enhancing users' self-awareness, fostering personalized support, and ultimately promoting emotional well-being. By leveraging AI-generated insights derived from users' journal entries, individuals gain a deeper understanding of their emotional states and patterns, empowering them to navigate their mental health journey more effectively. This analysis can also serve as a valuable tool for mental health professionals, providing them with

nuanced insights into clients' emotional landscapes to inform treatment planning and interventions. However, it's essential to acknowledge the challenges and limitations associated with NLP and ML algorithms utilized in emotional constitution analysis. Issues such as accuracy, bias, and interpretability may arise, potentially impacting the reliability and validity of the generated insights. Moreover, concerns regarding data privacy and security could influence user trust and engagement with the application, necessitating careful consideration and implementation of robust privacy measures. Looking ahead, future research and development efforts should focus on refining AI algorithms to improve accuracy and robustness, as well as exploring the integration of additional features or modalities, such as voice analysis or sentiment tracking, to enhance the depth and breadth of emotional insights provided. Longitudinal studies are also essential to assess the long-term impact of the journaling feature on users' mental health outcomes and identify areas for further improvement.From a clinical perspective, the journaling feature holds promise in augmenting therapeutic interventions and enhancing the quality of care provided by mental health professionals. Therapists can leverage the emotional constitution data to tailor treatment plans, monitor client progress, and facilitate more personalized and effective therapeutic interventions. However, it's crucial to address ethical considerations and professional guidelines for integrating technology into clinical practice, ensuring that the use of AI-driven insights remains ethical, responsible, and aligned with best practices in mental health care.

3.5 Individual Contribution by members:

3.5.1 Hritik Singh:

Hritik Singh assumed a leadership role in the development of an innovative Appointment Booking web application tailored specifically for mental health professionals. Utilizing React for the frontend and NodeJS for the backend, Hritik meticulously engineered a seamless user experience, prioritizing ease of navigation and functionality. Users can seamlessly explore a comprehensive directory of mental health professionals and efficiently schedule appointments at their convenience. Hritik's implementation of a robust messaging system fosters direct communication between users and administrators, enhancing the overall user experience. Beyond user interactions, Hritik's vision extended to the creation of an intuitive Admin dashboard. This dashboard equips administrators with powerful tools to streamline request management, seamlessly onboard new mental health professionals, and effectively address user inquiries. Hritik's unwavering expertise and dedication were pivotal in realizing the project's success, ensuring both user satisfaction and administrative efficiency within the mental health domain.

3.5.2 Shivani Arora:

Shivani's contribution to the project was paramount, focusing on the development of a cutting-edge machine learning model utilizing BERT, a technology pioneered

by Google. This model was meticulously designed to analyze textual inputs and accurately identify the underlying emotions associated with them, while also quantifying the intensity of these emotions. By leveraging BERT's advanced natural language processing capabilities, Shivani enabled the application to delve deeper into the emotional nuances embedded within the text, providing users with valuable insights. Her expertise extended beyond model implementation, encompassing optimization and scalability to ensure optimal performance. Shivani's dedication to innovation and meticulous attention to detail were evident throughout the development process, resulting in a robust machine learning solution that significantly enhanced the application's functionality. Through her contributions, the project gained a deeper understanding of emotional context, empowering users to make more informed decisions and facilitating more meaningful interactions with textual data across various domains.

3.5.3 **Pushparaj Dubey**:

Pushpraj's pivotal contribution to the project involved the development of a comprehensive web application serving as the primary entry point for user interaction. Leveraging Next.js for both frontend and backend development, Pushpraj ensured a seamless and efficient user experience. The application

facilitates essential functionalities such as user signup and login, providing a secure gateway to access various features available on the platform. Among these features are journaling and emotional analysis, which enable users to document their thoughts and emotions while receiving insightful analysis. Additionally, Pushpraj integrated Clerk for user management, ensuring robust authentication and authorization processes. Through his expertise and dedication, Pushpraj played a vital role in creating a user-friendly platform that empowers users to engage with its diverse range of features effectively.

3.5.4 Tanjul Sarathe:

Tanjul spearheaded the development of a dynamic platform designed to facilitate seamless video calls and conferences, catering to a diverse range of users including professionals, family, and friends. With a keen focus on user experience, Tanjul ensured that the platform offers intuitive features for initiating and participating in video calls. Users can effortlessly connect with professionals for consultations, engage in family gatherings, or catch up with friends, all within a single, user-friendly interface. Tanjul's expertise in front-end and back-end development ensured smooth functionality across devices, enabling users to communicate effectively regardless of their location or device preference. Through Tanjul's innovative approach, the platform provides a reliable and accessible means for fostering connections and collaborations in both personal and professional contexts.

3.5.5 Harsh Kumar Sahu:

Harsh led the development of a dynamic platform dedicated to facilitating seamless video calls and conferences, catering to professionals, family, and friends alike. With a sharp focus on enhancing user experience, Harsh ensured the platform boasted intuitive features for effortless initiation and participation in video calls. Whether seeking professional consultations, connecting with family for gatherings, or catching up with friends, users could engage within a single, user-friendly interface. Harsh's proficiency spanned both front-end and back-end development, guaranteeing smooth functionality across devices, enabling effective communication regardless of location or device preference. Through his innovative approach, the platform emerged as a reliable and accessible tool for nurturing connections and collaborations, accommodating both personal and professional contexts with ease. Harsh's contribution significantly elevated the platform's capabilities, empowering users to seamlessly interact and collaborate in virtual spaces with utmost convenience and reliability.

3.5.6 Runit Sharma:

Runit's contributions to the project were diverse and impactful. Primarily focusing on documentation and presentation creation, he meticulously crafted clear and comprehensive materials to ensure effective communication of project progress and findings. Runit's adeptness in creating presentations facilitated smooth engagement with stakeholders, keeping them informed and engaged throughout

the project lifecycle. Additionally, he provided valuable assistance in frontend development for the appointment booking application, contributing to its usability and functionality. Runit's dedication to detail and versatility played a crucial role in enhancing collaboration within the team and ensuring that project objectives were met efficiently. By combining his skills in documentation, presentation, and frontend development, Runit made significant contributions to the project's success, emphasizing the importance of effective communication and teamwork in achieving project goals.

3.5.7 Manish Rana:

In collaboration with my teammate Ashish, my primary responsibility was centered around training and conducting comprehensive evaluations of supervised machine learning models, specifically Support Vector Machines (SVM) and K-Nearest Neighbors (KNN). I played a pivotal role in the data preprocessing pipeline, meticulously handling tasks such as encoding, managing missing and null values, and renaming columns using appropriate normalization techniques. These preprocessing steps were essential in preparing the raw survey data for optimal training, ensuring robustness to variations in the input data. Additionally, I collaborated with Ashish to devise and implement an effective data splitting strategy, carefully partitioning the labeled dataset into dedicated training and testing subsets. This meticulous approach guaranteed an unbiased evaluation of the model's performance on unseen data, providing an accurate assessment of its generalization capabilities and real-world applicability. Our combined efforts

significantly enhanced the reliability and efficacy of our machine learning models, facilitating informed decision-making based on precise predictions.

3.5.8 Ashish Patel:

Collaborating closely with Manish, my primary focus was on the training and comprehensive evaluation of supervised machine learning models, specifically Support Vector Machines (SVM) and K-Nearest Neighbors (KNN). I played a pivotal role in the data preprocessing pipeline, meticulously handling tasks such as encoding, handling missing and null values, and renaming columns with appropriate normalization techniques. These preprocessing steps were crucial in preparing the raw survey data for optimal training, ensuring robustness to variations in the input data. Additionally, I devised and implemented an effective data splitting strategy, carefully partitioning the labeled dataset into dedicated training and testing subsets. This meticulous approach guaranteed that the model's performance was rigorously evaluated on unseen data, providing an unbiased assessment of its generalization capabilities and real-world applicability. My contributions significantly enhanced the reliability and efficacy of our machine learning models, facilitating informed decision-making based on accurate predictions.

4. CONCLUSION

The completion of the "Samanvay" project signifies a monumental achievement in our collective pursuit of providing vital support and guidance to individuals grappling with mental health challenges. Rooted deeply in our core values of empathy, inclusivity, and innovation, our mission was to create a platform that serves as a beacon of hope and understanding for those traversing the complex landscape of mental health. Through meticulous planning, relentless dedication, and unwavering teamwork, we have meticulously crafted a sophisticated web application designed to empower users with tools that prioritize their emotional well-being above all else.

Central to the ethos of "Samanvay" are its flagship features: journaling and emotional assessment. Recognizing the transformative power of self-expression, the journaling feature offers users a safe, secure, and private space to articulate their thoughts, feelings, and experiences. By fostering introspection and self-reflection, this tool empowers individuals to gain profound insights into their emotions, identify patterns, and chart their progress over time. It serves as an indispensable companion on their journey towards healing, growth, and self-discovery.

Complementing the journaling feature is the innovative emotional assessment functionality, powered by cutting-edge machine learning algorithms. This revolutionary tool analyzes the emotional content of user input, providing personalized insights, and recommendations tailored to each individual's unique needs and circumstances. By harnessing the power of technology, "Samanvay" seeks to democratize access to mental health resources, offering users a comprehensive toolkit to better understand, manage, and optimize their emotional well-being.

Throughout the development process, our team remained steadfast in our commitment to creating a platform that fosters a sense of community, belonging, and support. We recognize that mental health is a deeply personal and nuanced journey, and "Samanvay" endeavors to honor the diverse experiences and needs of each user. With inclusivity at the forefront of our efforts, we have strived to ensure that "Samanvay" is accessible, user-friendly, and culturally sensitive, catering to individuals from all walks of life.

As we celebrate the culmination of this project, we are filled with a profound sense of pride, gratitude, and optimism for the profound impact that "Samanvay" will have on the lives of countless individuals. Moving forward, we remain deeply committed to refining, expanding, and enhancing "Samanvay" to better serve our community and uphold our shared vision of a world where mental health support is accessible, equitable, and empowering for all who seek it..

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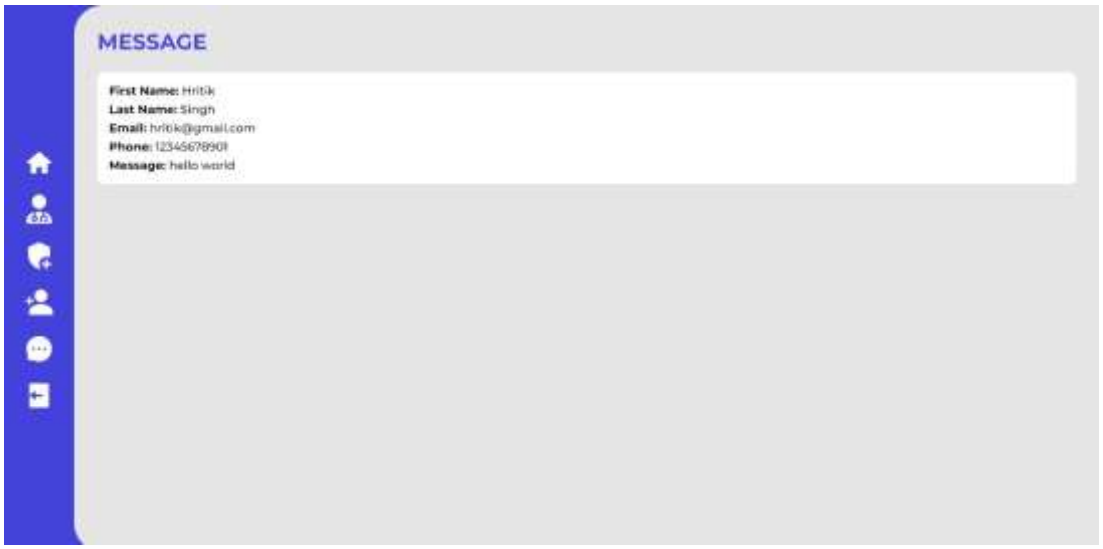
6. Appendices:

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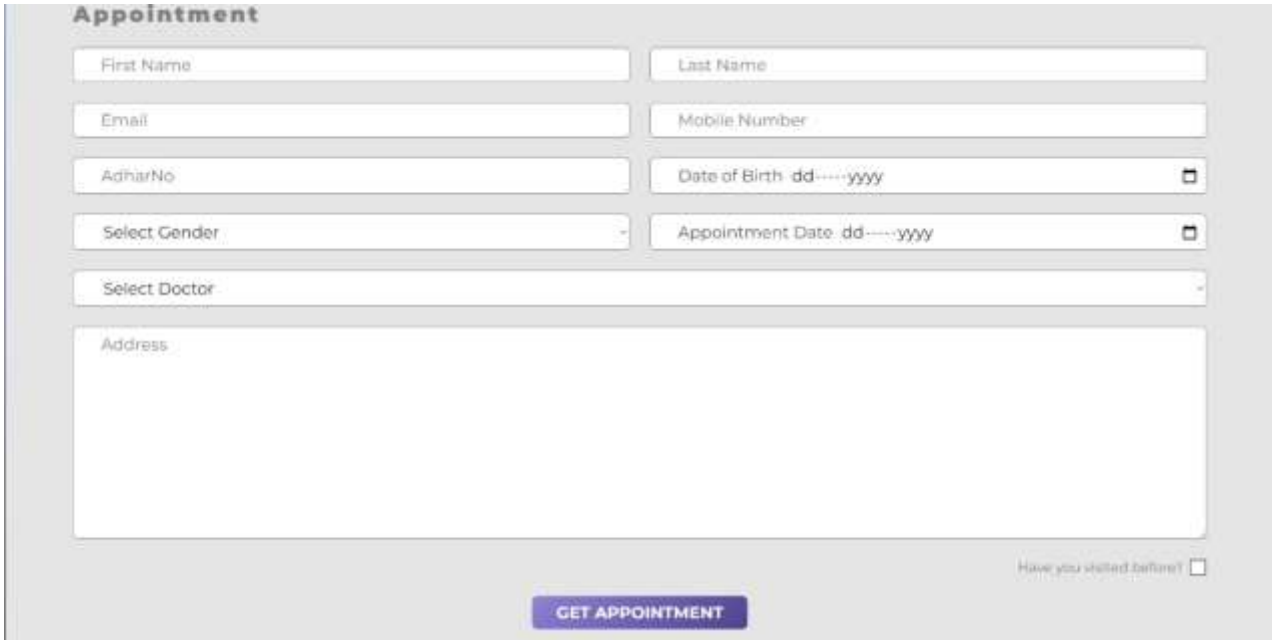
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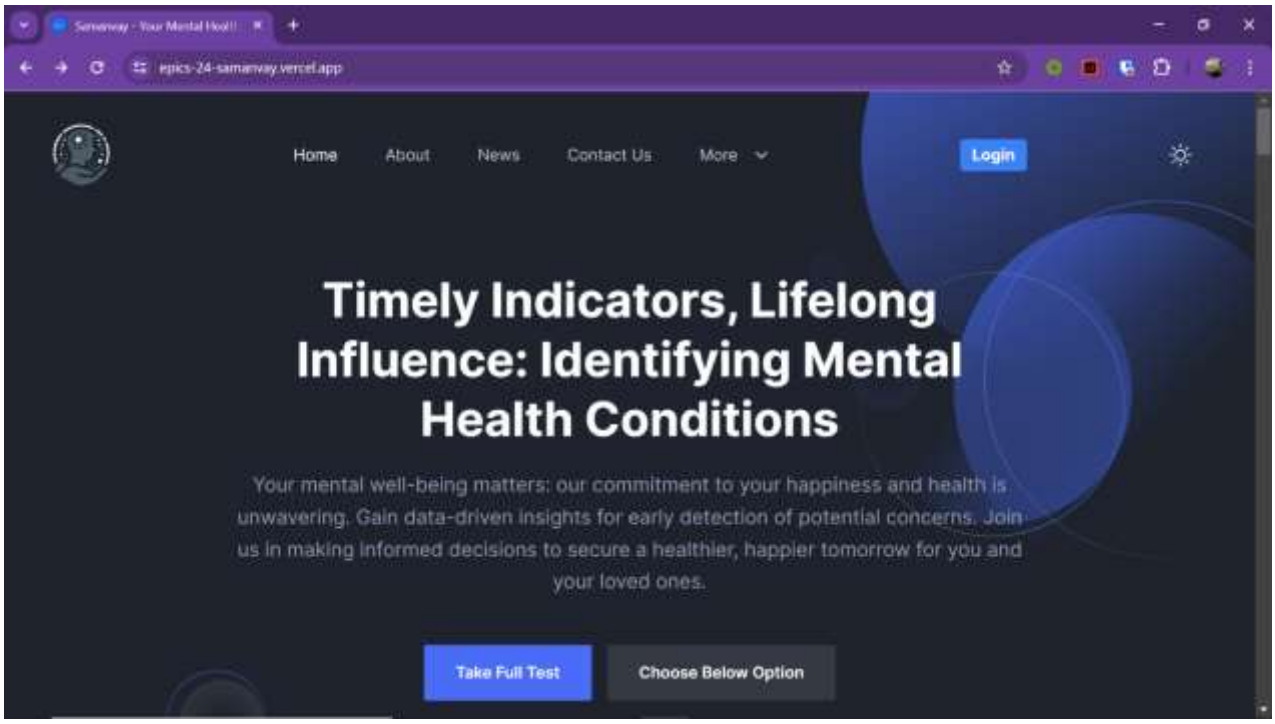
Mobile Number
AdharNo
Date of Birth dd-----yyyy
Select Gender
Appointment Date dd-----yyyy
Select Doctor
Address
GET APPOINTMENT


epics-24-samanvay.vercel.app
Home
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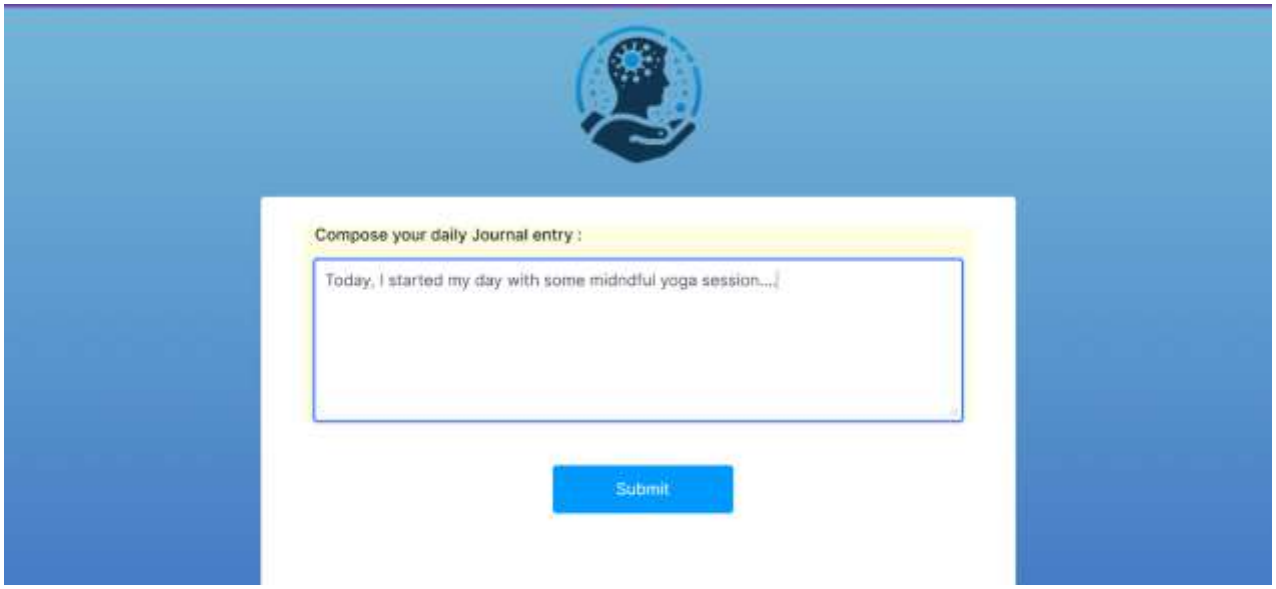
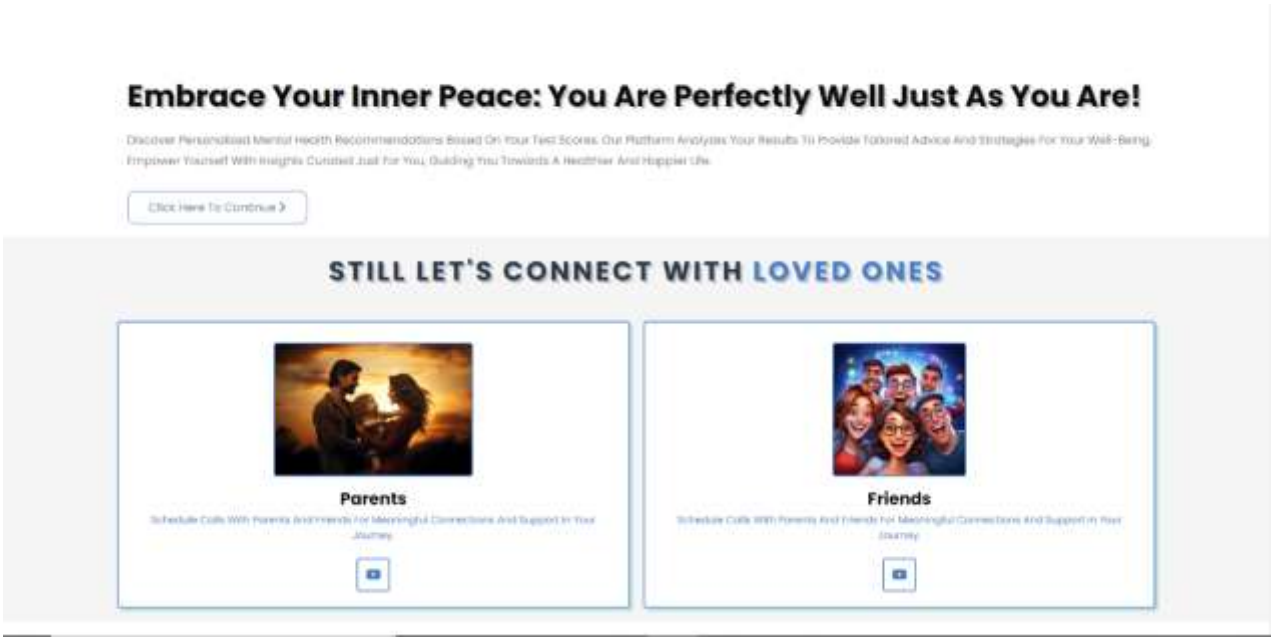
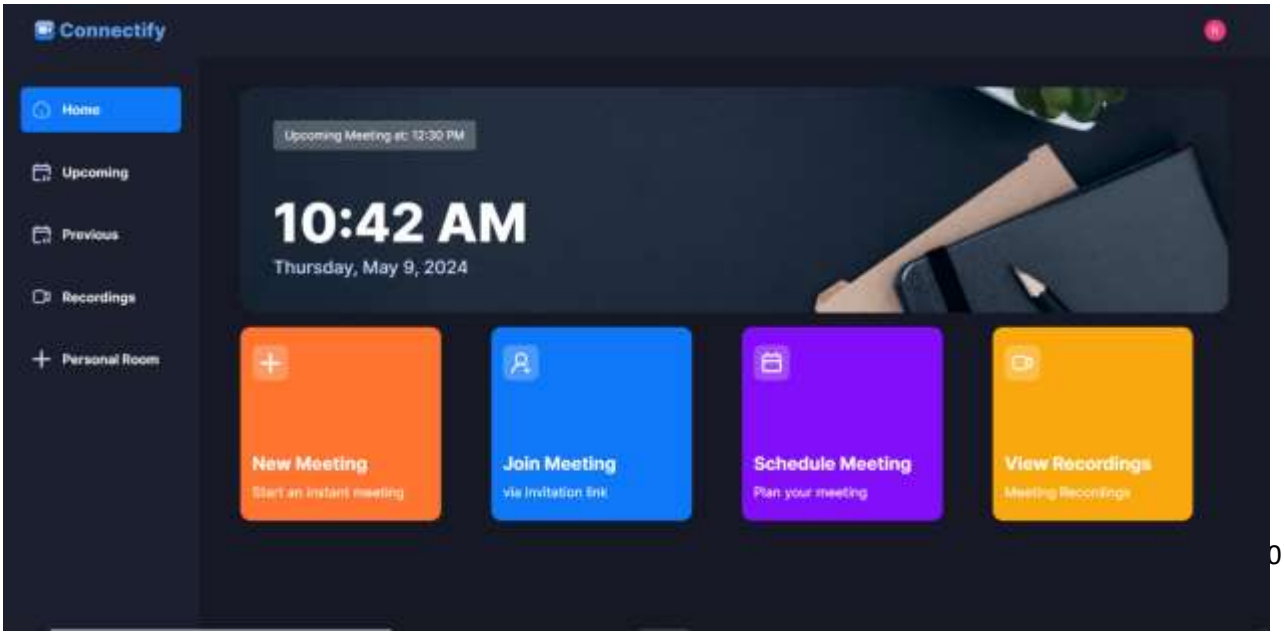
Timely Indicators, Lifelong Influence: Identifying Mental Health Conditions
Your mental well-being matters: our commitment to your happiness and health is unwavering. Gain data-driven insights for early detection of potential concerns. Join us in making informed decisions to secure a healthier, happier tomorrow for you and your loved ones.
Take Full Test
Choose Below Option


General Test | Samanvay
Time Left 59
3. Do you often feel anger or frustration?
Yes
No
Sometimes
Moreoften
3 of 8 Questions


Compose your daily Journal entry :
Today, I started my day with some midndful yoga session....
Submit


Embrace Your Inner Peace: You Are Perfectly Well Just As You Are!
Click Here To Continue
STILL LET'S CONNECT WITH LOVED ONES
Parents
Friends


Connectify
Home
Upcoming
Previous
Recordings
Personal Room
Upcoming Meeting at: 12:30 PM
10:42 AM
Thursday, May 9, 2024
New Meeting
Start an instant meeting
Join Meeting
via invitation link
Schedule Meeting
Plan your meeting
View Recordings
Meeting Recordings

7. List of Contributers:

7.1 Hritik Singh 21BCE11692

Introduction:

Hritik Singh is a Mern stack developer and an aspiring computer science enthusiast currently pursuing his BTech in Computer Science Engineering at VIT Bhopal University.

Technical Expertise:

He specializes in Mern stack development, boasting a strong command over C++ and Data Structures & Algorithms (DSA). Thriving as a problem solver, he leverages his expertise in C++ programming and DSA to craft efficient solutions. His strategic thinking abilities enable him to analyze and optimize software development processes throughout the lifecycle. Additionally, he possesses a solid foundation in cloud computing, particularly in AWS.

Key Skills:

Hritik's proficiency in C++ programming and Data Structures & Algorithms (DSA) enables him to develop optimized algorithms and streamlined data structures for enhanced software performance. He excels in bridging the gap between technical functionality and user requirements, ensuring that applications meet user preferences and align with current market trends. Furthermore, his excellent problem-solving abilities, coupled with expertise in C++ programming and DSA, enable him to tackle complex challenges with ease.

Additional Notes:

With a knack for effective communication, Hritik facilitates collaboration and teamwork. His goal is to continue honing his skills and contributing meaningfully to the field of computer science.

7.2 Shivani Arora 21BHI10014

Introduction:

Shivani Arora is a dynamic individual blending technical acumen with a passion for data science. Currently pursuing her B.Tech in Computer Science Engineering with a specialization in Health Informatics at VIT Bhopal University, she brings a wealth of professional experience in data analytics and machine learning. Shivani is skilled in Java, Python, and ML, with certifications including AWS Certified Cloud Practitioner and Applied Machine Learning in Python.

Technical Expertise:

Data Insights Specialist: Proficient in extracting insights from user engagement and app usage patterns using tools like Google Analytics.

Algorithmic Problem Solver: Experienced in Java programming and Data Structures & Algorithms (DSA), crafting optimized algorithms for improved software performance.

Strategic Analysis:

Applies analytical reasoning throughout the software development lifecycle to ensure applications meet user preferences and market trends.

Leadership Skills:

Team Collaboration: Effectively leads teams in collaborative problem-solving efforts, fostering an environment of trust and open communication.

Decision Making: Demonstrates sound judgment and decisiveness in guiding project directions and resolving conflicts.

Mentorship: Mentors and supports team members, encouraging their professional growth and development.

Key Skills:

Strong data analysis skills focusing on user behavior and app performance.

Expertise in Java programming and Data Structures & Algorithms.

Excellent communication skills facilitating collaboration.

7.3 Pushpraj Dubey 21BHI10087

Introduction:

Pushpraj Dubey is a Mern stack developer, also competent in advance frameworks like Next.JS, and an aspiring computer science enthusiast currently pursuing his B.Tech in Computer Science Engineering with a specialization in Health Informatics at VIT Bhopal University.

Technical Expertise:

He specializes in Mern stack development, boasting a strong command over C++ and Data Structures & Algorithms (DSA). Thriving as a problem solver, he leverages his expertise in C++ programming and DSA to craft efficient solutions. His strategic thinking abilities enable him to analyze and optimize software development processes throughout the lifecycle. Additionally, he possesses a solid foundation in cloud computing, particularly in AWS.

Key Skills:

Puspraj's proficiency in C++ programming and Data Structures & Algorithms (DSA) enables him to develop optimized algorithms and streamlined data structures for enhanced software performance. He excels in bridging the gap between technical functionality and user requirements, ensuring that applications meet user preferences and align with current market trends. Furthermore, his excellent problem-solving abilities, coupled with expertise in C++ programming and DSA, enable him to tackle complex challenges with ease.

Additional Notes:

With a knack for effective communication, Pushpraj facilitates collaboration and teamwork. His goal is to continue honing his skills and contributing meaningfully to the field of computer science.

7.4 Runit Sharma 21BSA10139

Introduction:

Runit Sharma is a Next ans Python developer, and an aspiring computer science enthusiast currently pursuing his BTech in Computer Science Engineering with specialization in cloud computing and automation at VIT Bhopal University.

Technical Expertise:

He specializes in Next and Python development, boasting a strong command over C++ and Data Structures & Algorithms (DSA). Thriving as a problem solver, he leverages his expertise in C++ programming and DSA to craft efficient solutions. His strategic thinking abilities enable him to analyze and optimize software development processes throughout the lifecycle.

Key Skills:

Runit's proficiency in C++ programming and Data Structures & Algorithms (DSA) enables him to develop optimized algorithms and streamlined data structures for enhanced software performance. He excels in bridging the gap between technical functionality and user requirements, ensuring that applications meet user preferences and align with current market trends. Furthermore, his excellent problem-solving abilities, coupled with expertise in C++ programming and DSA, enable him to tackle complex challenges with ease.

Additional Notes:

With a knack for effective communication, Runit facilitates collaboration and teamwork. His goal is to continue honing his skills and contributing meaningfully to the field of computer science.

7.5 Tanjul Sarathe 21BSA10149

Introduction:

Tanjul Sarathe is a web developer and aspiring computer science student currently pursuing his BTech in Computer Science Engineering with a specialization in cloud computing and automation at VIT Bhopal University.

Technical Expertise:

Proficient in Java full stack development, with expertise in Java Springboot.

Masterful problem solver with a strong grasp of Java programming and Data Structures & Algorithms (DSA).

Possesses strategic thinking abilities, leveraging analytical reasoning throughout the software development lifecycle.

Strong knowledge in cloud computing, particularly in AWS.

Key Skills:

Proficiency in Java programming and Data Structures & Algorithms (DSA), enabling the crafting of optimized algorithms and streamlined data structures for improved software performance.

Strategic thinker who ensures applications meet user preferences and align with market trends.

Excellent problem-solving abilities coupled with expertise in Java programming and DSA.

Additional Notes:

Harsh excels in bridging the gap between technical functionality and user needs.

Possesses excellent communication skills, fostering collaboration and teamwork.

7.6 Harsh KumarSahu 21BSA10163

Introduction:

Harsh Kumar Sahu is a web developer and aspiring computer science student currently pursuing his BTech in Computer Science Engineering with a specialization in cloud computing and automation at VIT Bhopal University.

Technical Expertise:

Proficient in Java full stack development, with expertise in Java Springboot. Masterful problem solver with a strong grasp of Java programming and Data Structures & Algorithms (DSA). Possesses strategic thinking abilities, leveraging analytical reasoning throughout the software development lifecycle. Strong knowledge in cloud computing, particularly in AWS.

Key Skills:

Proficiency in Java programming and Data Structures & Algorithms (DSA), enabling the crafting of optimized algorithms and streamlined data structures for improved software performance.

Strategic thinker who ensures applications meet user preferences and align with market trends.

Excellent problem-solving abilities coupled with expertise in Java programming and DSA.

Additional Notes:

Harsh excels in bridging the gap between technical functionality and user needs.

Possesses excellent communication skills, fostering collaboration and teamwork.

7.7 Ashish Patel 21MIP10036

Introduction-

Ashish is a passionate computer science student specializing in Data science at VIT Bhopal University. Currently pursuing his Int. [M.Tech], Ashish is a dedicated learner with a strong foundation in core computer science principles. He leverages his knowledge in ML development, excelling in problem-solving and analytical thinking. This makes him a valuable asset to any tech project.

Academic Focus & Skills:

Int. [M.Tech]in Computer Science and Engineering with a specialization in Data science and computation (VIT Bhopal University) Proficient in ML model development with a focus on supervised and unsupervised with strong foundation in computer science principles.

Key Skills - Ashish is proficient in java programming with DSA enables him to develop optimised algorithm. Experience in ML with python on supervised and un supervised model.

7.8 Manish Rana 21MIP10038

Introduction-

Ashish is a passionate computer science student specializing in
Data science at VIT Bhopal University. Currently pursuing his
Int. [M.Tech], Ashish is a dedicated learner with a strong foundation in core computer science principles. He leverages his knowledge in ML development, excelling in problem-solving and analytical thinking. This
makes him a valuable asset to any tech project.

Academic Focus & Skills:

Int. [M.Tech]in Computer Science and Engineering with a specialization in Data science and computation (VIT Bhopal
University)

Proficient in ML model development with a focus on supervised and unsupervised with strong foundation in computer science principles.

Key Skills - Ashish is proficient in java programming with DSA enables him to develop optimised algorithm. Experience in ML with python on supervised and un supervised model.