iJRASET
International Journal For Research in Applied Science and Engineering Technology

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 10 **Issue:** VI **Month of publication:** June 2022

DOI: https://doi.org/10.22214/ijraset.2022.44038

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International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 10 Issue VI June 2022- Available at www.ijraset.com

Mental Wellness Portal: PsychCafe

Vidya Sarode[1], Rohan Khamkar[2], Sundar Kulkarni[3], Mauli Pawar[4], Sanskruti Pawase[5]
[1, 2, 3, 4, 5]*Electronics and Telecommunications Department, Mumbai University*

Abstract: ***Even in today's contemporary environment, anyone who mentions mental health is not taken seriously. When it comes to mental health, the person is portrayed as either aggressive or unstable. However, people with serious mental disorders are almost 10 times more likely than the general population to be victims of violent crime. Because many persons with psychological state difficulties are very engaged and valuable members of our communities, you most likely know someone with a psychological state problem and are not even tuned in to it[1]. This project intended to help people track their mental health without needing to consult a professional regularly. Javascript, CSS, HTML, Xampp, and PHP were used to develop the online portal.***

Keywords: Mental Health Portal, Mental Health Tracking, Web Design, Psychcafé, mentally resilient.

I. INTRODUCTION

WHO's (World Health Organization) definition of intellectual fitness is a "nation of wellness wherein the man or woman realizes his or her abilities, can deal with the regular stresses of life, can function productively and fruitfully, and might contribute to his or her community". Mental fitness is critical at each level of life, from early life and formative years thru adulthood.

Although the phrases are regularly used interchangeably, negative mental fitness and mental illness aren't the same. An individual can experience terrible mental fitness and now no longer be recognized with mental illness. Similarly, a person diagnosed with a mental illness may experience an interval of physical, mental and social well-being. Mental fitness can keep changing over time, you may preserve the track of it via way of means of taking over a test available on the website. Currently, we cognizance simplest problems which might be Stress and ADHD (Attention-Deficit/Hyperactivity Disorder). ADHD is usually recognized in kids and young adults so mother and father or guardians can take up the test for evaluation. Most of the time the mother and father of the children with ADHD live through stress, hence they can track their stress level by taking the stress test. Questions used for the evaluation of each Stress and ADHD are advocated via way of means of WHO, the end result generated is in graphical format. We have a Café function wherein users can proportion their problems or cures that have helped them cope, handiest is a registered person can participate withinside the dialogue while a non-registered person can go through the dialogue withinside the café.

II. LITERATURE REVIEW

We have read a few research papers addressing mental health problems and a few research papers which explain how a health-related portal is developed so that we get an idea about how to proceed with our implementation. Following are reviews of some of the papers.

According to this research paper on digital mental state and covid-19, telehealth is that the best thanks to give mental state treatment in today's situation, with the sole known contraindication being a patient's refusal to participate. one in every of the healthcare teams has begun to use telehealth, and therefore the response indicates that this could become the new normal. Patients can contribute data from their experience during this crisis (e.g., altering activity and stress levels or response to new drugs) and practice new therapeutic skills between sessions by incorporating app data into telehealth appointments. It's difficult to recommend different applications because many of them don't safeguard user data, make inflated promises, are useless, and are frequently abandoned because of usability concerns [2,3,4]. As a result, while promoting such applications to patients, extreme caution is required. The remote delivery of "lifestyle interventions" is an undeveloped field for digital therapy and psychological state apps. there's mounting evidence that lifestyle variables like physical activity, sleep, and nutritious food play a necessary role within the self-management of mental illnesses. because of the negative psychological effects of reduced exercise or prolonged sedentary behavior, and also the ongoing debate about certain kinds of screen time and social media usage, consideration of those lifestyle factors for mental state is also especially important in periods of isolation/prolonged home time (with quality of online interactions mattering quite time). Self-quarantine and social distance will put variant individuals at risk of disrupting lifestyles that have likely helped their psychological state. Digital technology and smartphone applications, on the opposite hand, may offer a fresh platform for remote delivery of lifestyle therapies.

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However, there's still a good need for further research to determine how this may be done engagingly and effectively, However, further study is required to work out how this may well be done interestingly and successfully to achieve individuals who are laid low with mental disease. Many individuals nowadays find it simple to create reminders, download apps, join video conversations, and interact with peers using their smartphones. Many individuals, however, do not, and providing training and skills development is important to making sure that digital health truly helps those that need it the foremost. As a result, the DOORS (Digital Opportunities for Outcomes in Recovery Services) program provides 6-8 weeks of group sessions to accumulate smartphone skills and competencies that are warmly welcomed by persons with major mental state and are freely available for others to grow upon. Because the COVID-19 crisis has (at least temporarily) eliminated implementation hurdles to synchronous telehealth through legislative reforms, and therefore the evidence, safety, and engagement were already in situ previously, their goal is to witness exponential expansion in access and quality of treatment. the following stages in using applications for asynchronous telehealth will take longer and energy but will lead to even more access to high-quality treatment. [5]

They [6] explored the developing internal health difficulties among family members, healthcare help, and specific populations during the COVID-19 epidemic in this study report (old age, etc). Fear and solicitude of being ill or dying, incompetence, condemning those who are formerly affected, and mental collapse can all befall in the general population. Depressive disorders, anxiety disorders, fear complaint, physical symptoms, tone- blame, guilt, posttraumatic stress complaint (PTSD), distraction, psychosis, and indeed self-murder are all common internal conditions. Family members and close connections of people with COVID-19 endure mental issues as a result of being tracked, separated, or quarantined, which causes them to feel nervous and guilty about the contagion, isolation, and stigma on their family and friends. Numerous countries need the necessary staff and coffers to deal with COVID-19. As a result, healthcare workers are dealing with increased workload and the menace of infection. When they come into touch with COVID-19-confirmed people, they're generally isolated. Physical fatigue, anxiety, emotional disturbance, and sleep difficulties are wide as a result of increased labor, insulation, and prejudice. Research has indicated that abrupt outbreaks might aggravate the mental health problems of persons withpre-existing mental health conditions due to a lack of normal social conditioning and remaining at home for extended ages. So, the managing measures mentioned in the paper are positive thinking, creative activities, prayer, reading, music, online education classes, yoga & meditation, inner play, relaxation exercises, etc. They've also busted some myths and stated data about COVID-19, and have given preventative measures to be taken. Thus, from this study, we could understand the causes and consider the managing measures for our website.

This paper aimed to improve the University of Ilorin's health record management service by developing an electronic health record management system with a smartcard. This marks a shift away from the old paper-based patient record system and toward a more sophisticated electronic/computer-based system. The program was built using the XAMPP platform, and the smart card was made using a QR code generator. MySQL was utilized to construct the database, while HTML, PHP, CSS, and Javascript were used to design the user interface, style it, and send queries. Data may be selected and entered into the database utilizing server-side execution thanks to the Hypertext Pre-processor (PHP) connection. To access different parts of the system, you can use either a login and password or a smart card. When completely implemented, the designed system will improve the University of Ilorin's health care record management, reducing difficulties connected with patient records and increasing the rate at which data is accessible, therefore boosting healthcare service delivery. [7]

We don't normally go to hospitals until we have to, and even then, we don't always have a positive experience since we run into a variety of issues. There are automated hospital administration systems available, however, they do not provide any features that we require. While their patients are at home, even doctors do not have access to their data. And the fast rise of information and communication technology (ICT), as well as the Internet's power, have had a significant influence on today's global business and service delivery models. So, to make the process easier this paper aims to keep the records and do e-management of health systems. Streamlined processes, greater administration and control, higher patient care, rigorous cost management, and increased profitability are all advantages of Health Management Systems. Hospital Management Systems are in great demand to meet rising population demands, as well as to assist practicing doctors and hospital service and support employees in providing prompt and precise service. There are several metrics available to evaluate the performance of services such as the hospital industry, and the effective development and use of a hospital information system play an important role. [8]

COVID-19 seems to induce increased symptoms of sadness, anxiety, and stress as a result of psychosocial pressures such as life disruption, fear of illness, or worry of severe economic implications, according to most general public surveys. Because of differences in the methodology utilized, research sites, and study schedule in connection to the pandemic's course, the results of these surveys are mixed.

There have been reports of phobic anxiety, panic purchasing, and binge-watching television (all of which have been connected to mood swings, sleep disturbances, fatiguability, and self-control impairment), and social media exposure has been linked to an increased risk of anxiety. All the different aspects and reasons studied in this paper are jotted down to how mental health should change, and how much importance should be given. The different way which can be adapted for mental health care is studied and keeping in mind the current situation as discussed in the paper we have kept the implemented model in a way that the user can track their mental health care themselves. [9]

The authors of this paper propose a remedy to a current health center procedure in the Municipality of Sta. Cruz, which was excessively time-consuming. The developed model will handle the following: maintaining records, automated reports for data correctness, health monitoring based on morbidity status using the quicksort algorithm, and adding tasks and events for reminder reasons. All of the modules are linked together to provide data that will be utilized by barangay/municipal health workers and health officers to make decisions. The process improvement was guided by the extreme programming methodology's planning, designing, coding, testing, and listening. As a consequence, the system was designed to objectively measure outcomes, automate procedures, and reduce bottlenecks to analyze and enhance the efficiency and effectiveness of operations. Another important role of the system is to keep track of each barangay's morbidity rate. It was discovered through data collection that the aforementioned health facilities' practice of keeping records and issuing reports is time-consuming since they still employ a manual procedure. Using the development tools to create the project, create a system that offers patients' history of records during consultations. To create the system, PHP and Javascript were used as the backend, and HTML and CSS were used as the front end. Xampp is used by proponents as a local server for testing and deployment. To provide an automatic overall report on the four services provided, based on statistical analysis (average/percentage). Using amchart, create a data visualization depending on the data entered into the system. To create a system that uses the quicksort algorithm to deliver notice of notifiable illnesses in each barangay via a morbidity report. [10]

III.METHODS

A. System Design Technologies

HTML, CSS, JavaScript, PHP, and XAMPP are the technologies utilized to construct the framework and develop the website. XAMPP was used to create the database initially. PHP and Javascript have inbuilt libraries to facilitate intercommunication between the two languages. PHP has the "MySQLi" library for communication with MySQL databases. Utilizing HTML5, CSS3, and JavaScript, the front-end (client-side) was created to fulfill the demands of the users. The goal of choosing these tools was to quickly assess the webpage's content, aesthetics, and responsiveness. To improve data retrieval, the server-side (back-end) was built with PHP. The reasoning behind this is because PHP code can run on all major platforms and communicate with a variety of database languages. The XAMPP server was then deployed, and SQL queries were constructed to get the information we needed.

B. System Flowchart

System flowcharts show how information flows through a system and how decisions are made to regulate occurrences. Therefore, at the start of the sequence in this system, a new user registers in the system to receive login credentials, which are generally a username and password. After successful registration, the information is transferred to the database for storage, which qualifies the new user as an existing user. Logging into the system is the first step for an existing user. The system then verifies the user's credentials to see if they are valid or not. If the login is successful, the user will proceed to perform the desired task and then exit. The flowchart for the proposed system is shown in Fig. 1.

C. Proposed Framework

The usage of the system requires a computer system/mobile phone, internet connection, and a web browser. The framework offers an interface where the users can sign up to obtain their login credentials via email to further access the system resources. The proposed system is the website will have a set of questions that everybody can answer even before the registration which will help them with the analysis and based on the analysis, they can decide whether to proceed with the registration or not. The difference is, that the non-registered user won’t be able to store and access their past test results, whereas the registered user can go to the dashboard and view the past results by filtering them by date, month, or year. The test result will display whether the user is suffering from no/low/high Stress or ADHD based on which topic the test is taken. The users can follow the recommended activities which are present on the home page.

If the user is taking up tests regularly and the test results display high stress/ADHD every time the user can contact the doctor to get an advanced analysis done, even if the user is not experiencing anything major and still feels that he/she should visit a specialist they can go and can show them the self-tracking through the graph produced which will make it easier to covey the thoughts.

There is a café feature where the registered users can share their problems, and any user experiencing the same or similar issues can share something that has helped them control or ease down the situation for the time being. The non-registered user cannot take part in the discussion but can view it.

After using the website for a while, the user should be able to track his/her mental health issues, and he/she can decide whether to visit a specialist or not many online platforms help with therapy sessions or listen to the issues. The user can keep doing the tasks/activities recommended on the home page. One can always spread the word and recommend others to get into this healthy way of tracking and live life with zest and become mentally resilient by taking it slow and easy, as mental health is the same as physical health.

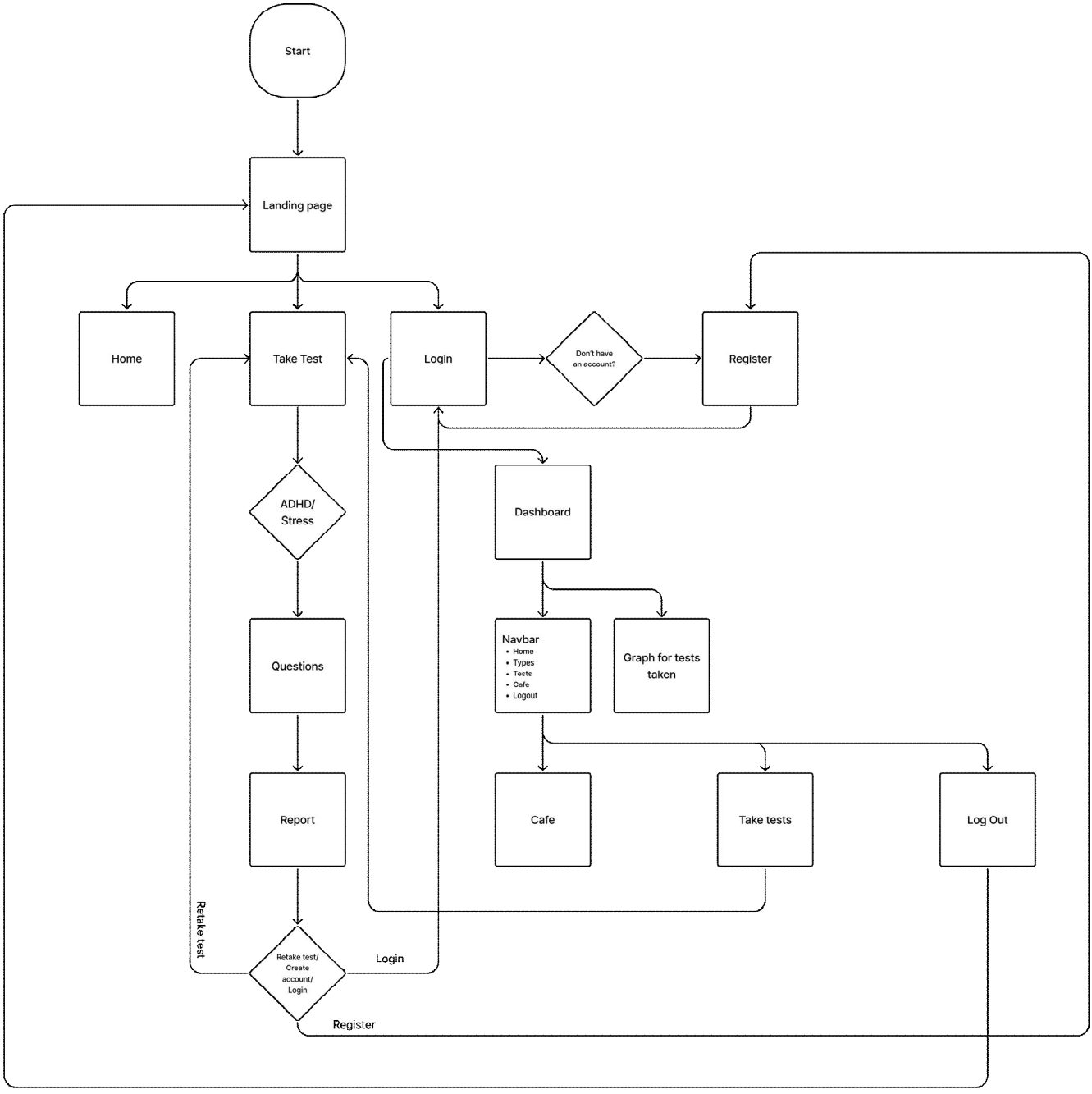

FIGURE 1: The System Flowchart

D. Database Design

To complete the flow of data and data processing tasks in this project, a database named "psychcafé" was created with 5 tables. The 5 tables created are categories, topics, users, posts, and test-result. The relationship between the tables is shown in Fig. 2.

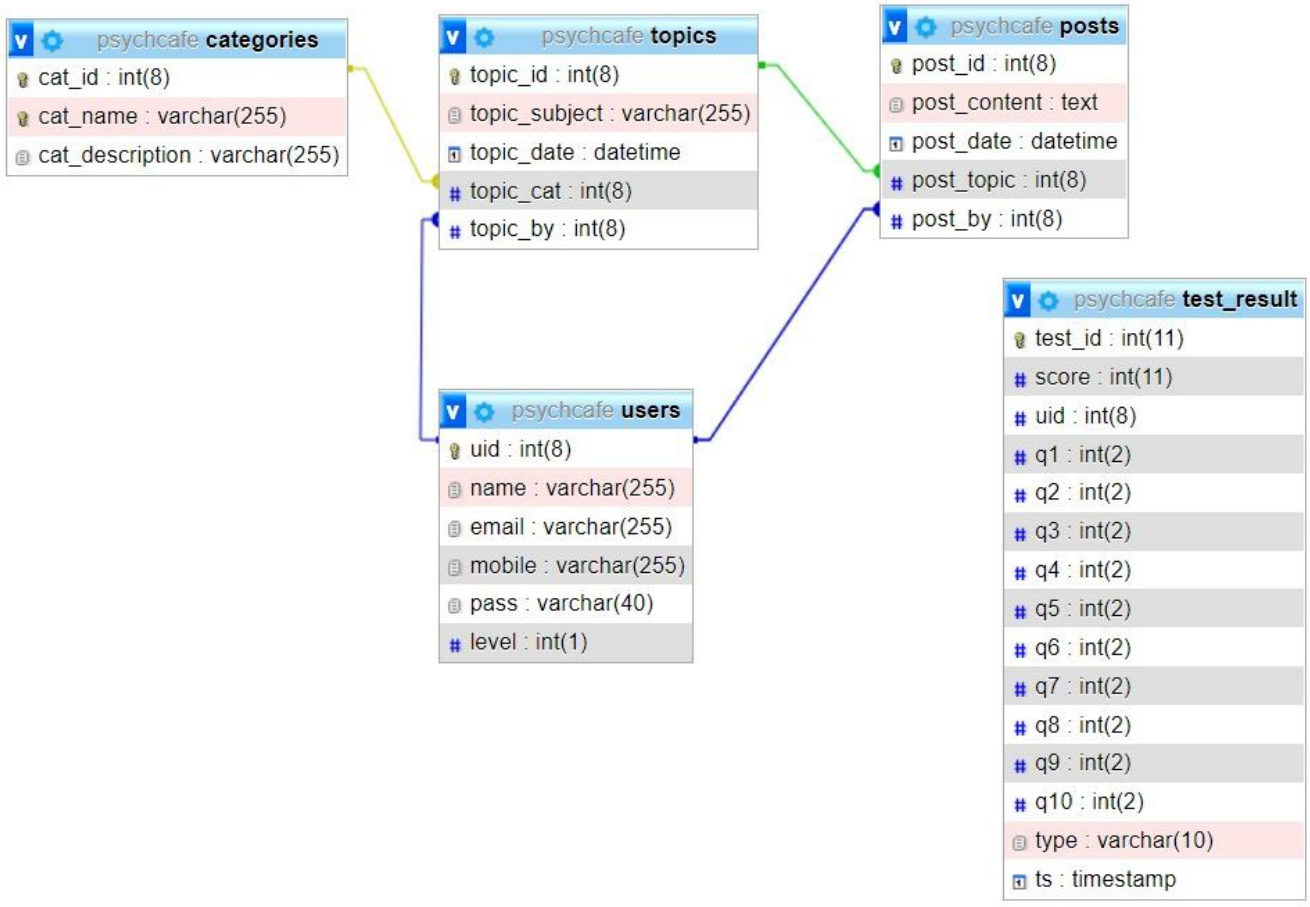

Figure 2: The diagram of the database

IV. RESULTS AND DISCUSSION

The outcomes of the implementations are presented and discussed in this section. The users need not compulsorily register in the system before they take a test, the test can be taken without registering. Users are given login credentials, which are a username and password, via mail once they have successfully registered (Fig. 3). These credentials allow them to access the services that are accessible to them. In comparison to the paper-based strategy, which splits information into distinct stores, producing data inconsistency, duplication, insecurity, and difficulties updating information, the link of the user interface to the database assures information centralization. The suggested approach encourages caregivers and patients to communicate easily. Users are also individually recognized and authenticated before being granted access to the system, ensuring data security.

As we focus on two issues, Stress and ADHD we have tests feature where the tests can be taken. The questions for the test of both topics are recommended by WHO, the test is MCQ format based. Fig. 4 shows the test section on the website. The result is generated based on the options selected, each option is valued which will accordingly generate a score. The breakpoints are 0-15 no stress, 16-33 low stress, and 34-50 as high stress. This quiz is NOT a diagnostic tool. Mental health disorders can only be diagnosed by a qualified psychiatrist or doctor. We have made the website with the belief that assessments can be a valuable first step toward getting treatment. Mental Health is still neglected; hence people don't approach professional help for their concerns as they think it is not legitimate or severe enough to consult a specialist.

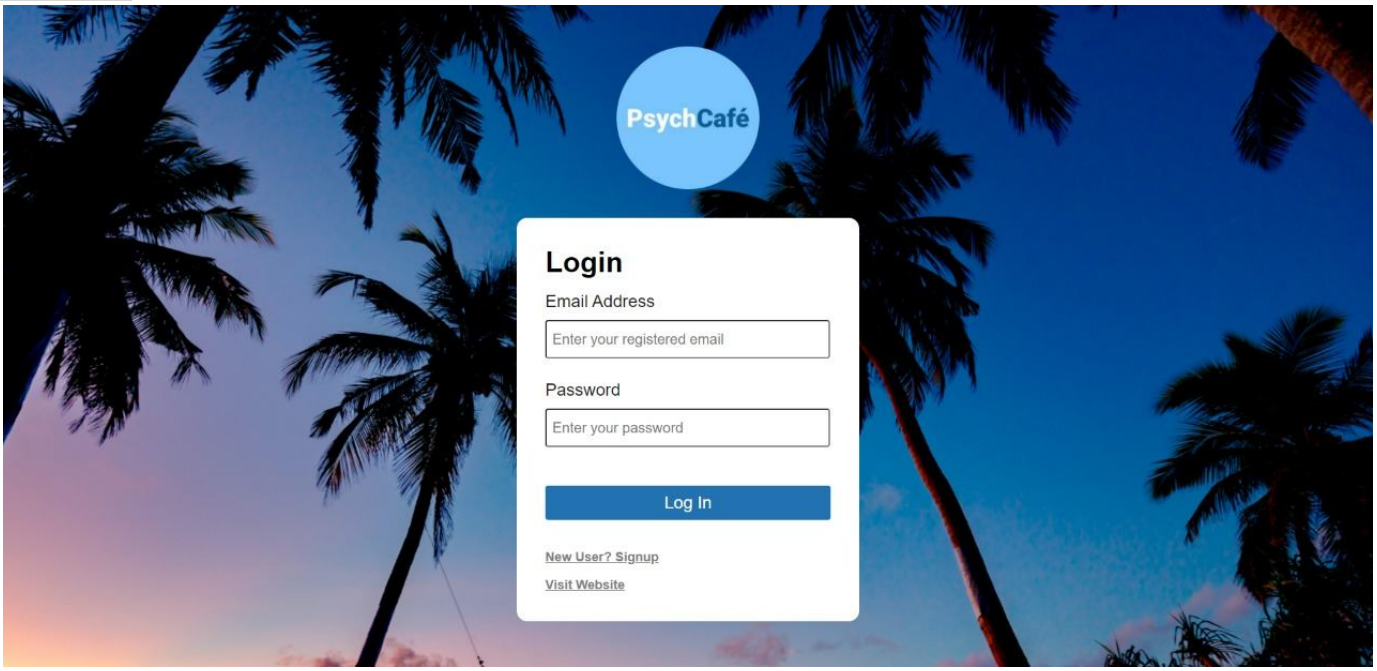

FIGURE 3: LOGIN PAGE

FIGURE 4: TEST FOR STRESS

Fig. 5 shows the home page where the user can click and a third-party website will open which will further lead the user about how to perform the task/activity to get control over your issues and handle them in a better way. For the user to track their mental health they will need to look back in history and have a look at the results of how they have been doing hence we have a dashboard (Fig. 6) where the user can filter for the options provided and get the results for a particular day. If the user decides to visit a specialist, then they can show the dashboard to them which will make the process easier. Lastly, in the café feature (Fig. 7) the registered user can type in their concerns, if any user has any suggestion to help with the concern which is put up in the forum can suggest. The overall interface of the website is user-friendly.

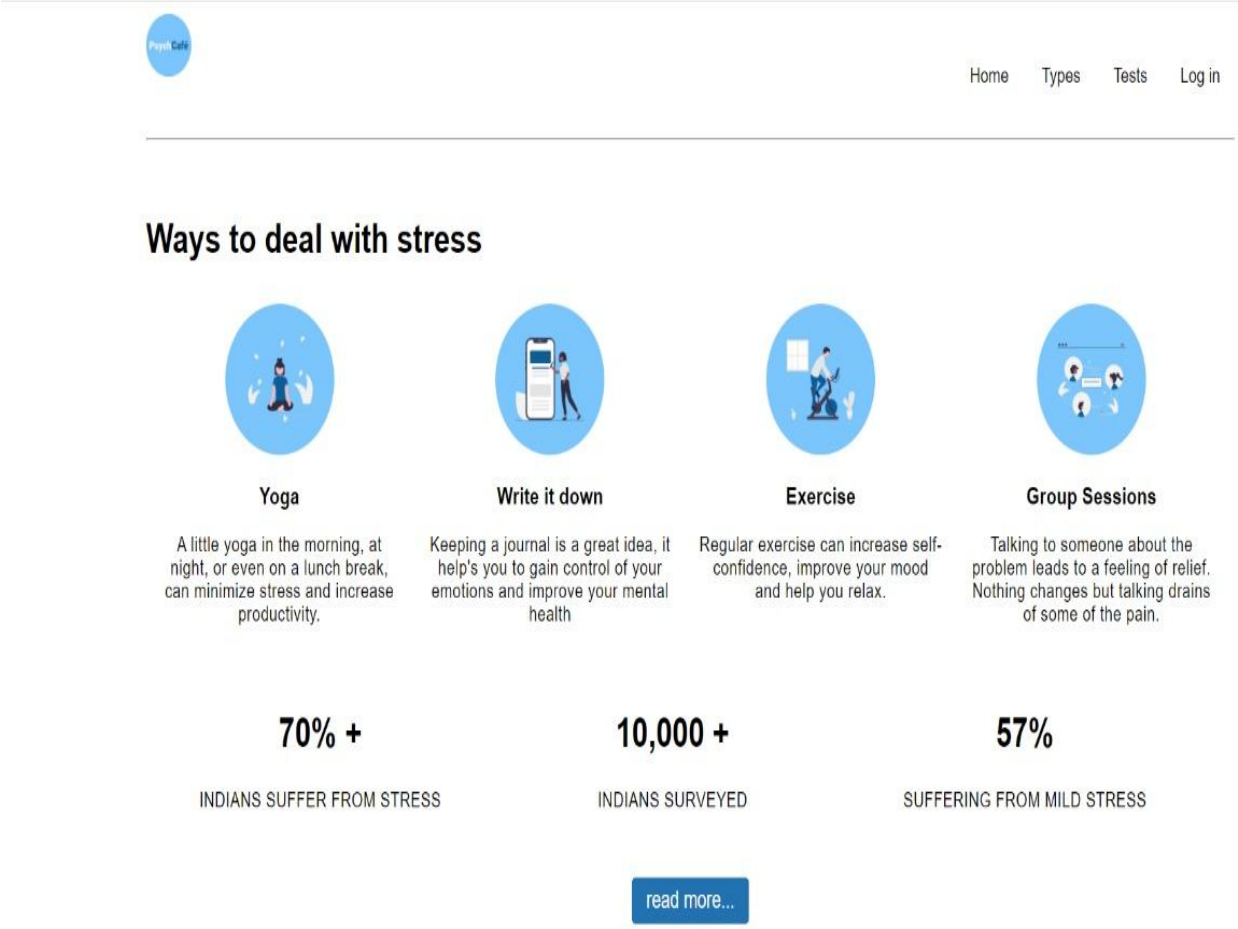

FIGURE 5: HOME PAGE

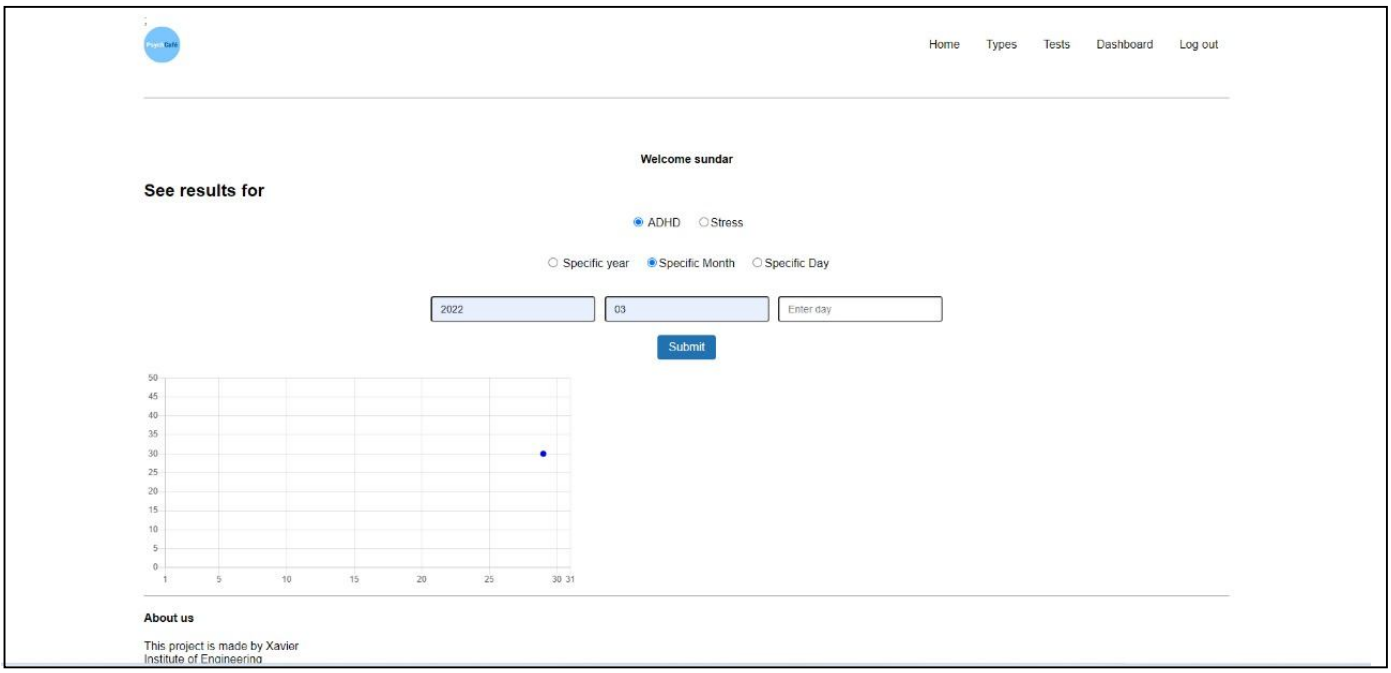

FIGURE 6: DASHBOARD

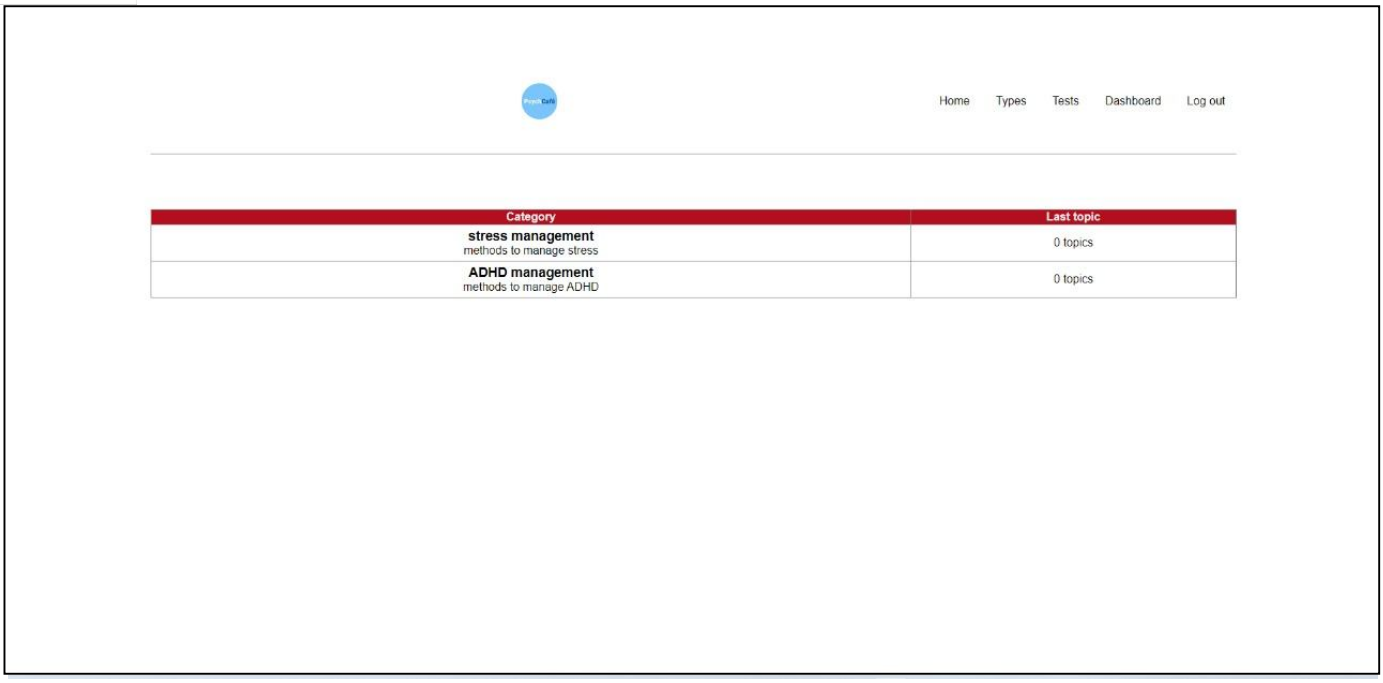

FIGURE 7: CAFÉ

V. CONCLUSION

In today's competitive environment, it is critical to maintaining one's mental health. Simply by keeping track of one's state, one may stay informed about one's own life and have a beneficial effect on it. As a measure, Psychcafé is a platform that offers self-care advice. It will also give chores to control symptoms and provide a venue for individuals to voice their ideas and have words delivered that might transform someone's life. The application does not need installation on a separate computer; therefore, it is also expected to be easier to use. With further improvements, the application would become a powerful guide for people undergoing psychological issues being managed more effectively. Our goal is for the user to finally overcome a worst-case scenario by following the advice or just keeping track of their progress and checking daily reports, and to learn that it's normal to keep an eye on their mental health and spread the word. The future scope is expanding the issues to be focused on example – OCD (obsessive-compulsive disorder), PTSD (Post-traumatic stress disorder), etc. The website can be linked to the smartwatches of users and the heartbeat is analyzed during the time of panic attack or experiencing an extremely high level of stress. The test questions aim to be more accurate by separating them based on age, gender, profession, and pre-existing illnesses.

VI. ACKNOWLEDGMENT

We would like to thank our project guide, Dr. Vidya Sarode for her valuable help and guidance. Her supervision throughout the process has shaped our work. We would like to express special thanks to our professors who permitted us to do this wonderful project on mental health, through which we have learned new things. We are grateful to Director Fr. Dr. John Rose S. J., Principal Dr. Y. D. Venkatesh, and the faculty of Xavier Institute of Engineering who guided us from the very beginning of our college journey and made us push ourselves to achieve better. We are grateful to our families whose motivation and sacrifice have helped us to pursue our engineering studies, and last but not the least, thank you to our friends for their timely help and support.

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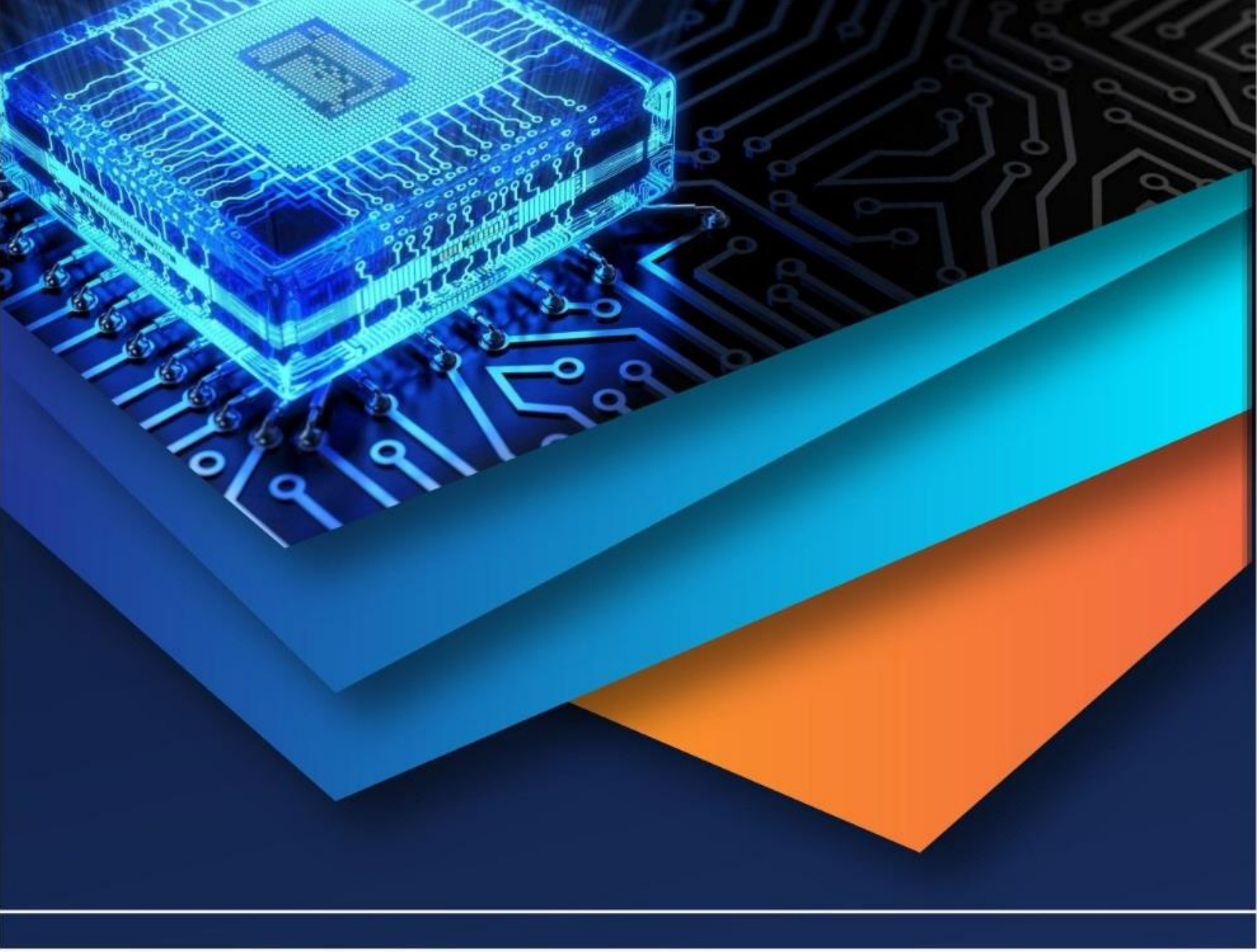

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