# MENTAL HEALTH COMPANION APPLICATION

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Abstract-The project focuses on building a mental health tracker. You will try to get an idea of the mental state of your user (in the least intrusive ways), find out if they are suffering and then suggest measures they can take to get out of their present condition. A user answers some questions and based on the answers that they provide, you will suggest tasks to them and maintain a record of their mental state for displaying on a dashboard. Mental disorders are widespread in countries all over the world. Nevertheless, there is a global shortage in human resources delivering mental health services. Leaving people with mental disorders untreated may increase suicide attempts and mortality. To address this matter of limited resources, conversational agents have gained momentum in the last years. In this work, we introduce a mobile application with integrated Chabot that implements methods from cognitive behavior therapy (CBT) to support mentally ill people in regulating emotions and dealing with thoughts and feelings. Application asks the user on a daily basis on events that occurred and on emotions. It determines automatically the basic emotion of a user from the natural language input using natural language processing and a lexicon-based approach. Depending on the emotion, an appropriate measurement such as activities or mindfulness exercises is suggested by application

Keywords: Mental Health, Deep learning, Questions, Authentication, Interested Selection

# INTRODUCTION

Mental health is an important issue in the world today. With a large population now working from home and staying away from loved ones, the mental health situation has deteriorated. As such, it becomes important to track and remedy any problems before they get too serious. We try achieving this using the Companion App. Keeping in mind that users might be suffering from mental illness and wouldn't want to engage much with an app, you'll have to design the app to be very friendly and welcoming. By the end of this project, you'll have a beautiful and fast app that is fun to use and also serves your goal. Try implementing the best practices while building the app; the following sections will detail the implementation goals and suggest some ways to achieve them.

# MOTIVATION OF THE PROJECT

The undertaking centers around building a psychological well-being tracker. You will attempt to find out about the psychological condition of your client (at all meddling ways), see whether they are enduring and afterward recommend measures they can remove to get from their current condition. A client responds to certain inquiries and in light of the appropriate responses that they give, you will recommend assignments to them and keep a record of their psychological state for showing on a dashboard. Mental

issues are broad in nations from one side of the planet to the other we present, a portable application with that carries out strategies from intellectual conduct treatment (CBT) to help insane individuals in directing feelings and managing considerations and sentiments

# LITERATURE SURVEY

Life satisfaction and mental health of Chinese older adults in different living arrangements, In order to compare life satisfaction and mental health status of older adults in different living arrangements, we investigated a sample of 1, 915 Chinese older adults using Satisfaction with Life Scale and Mental Health Inventory for the Urban Elderly. Difference in life satisfaction between three living arrangements is significant even after controlling age, education and income. Life satisfaction of older adults living in elderly apartments is better than those living at home. Income and co-residence with children interact to influence life satisfaction. Among older adults with high income, older adults living alone or with spouse have the greater life satisfaction than those living with children; while among older adults with average and low income, living with or separate form children have no difference on life satisfaction. The result indicates that institutionalized older adults have equal mental health with those living at home and even greater life satisfaction.

[1] Data Science in Public Mental Health: A New Analytic Framework. Understanding public mental health issues using data science and finding solutions based on the findings from the data science projects can be complex and requires advanced techniques, compared to conventional data analysis projects. It is important to have a comprehensive project management process to ensure that project associates are competent and have enough knowledge to implement the data science process. Therefore, this paper presents a new framework that mental health professionals can use to solve challenges they face using data science. Although a large number of research papers have been published on public mental health, few have addressed the use of data science in public mental health. Recently, Data Science has changed the way we manage, analyze and leverage L.G.N.S.C.O.E, Department of Computer Engineering 2021-2022 6 data in healthcare industry. Data science projects differ from conventional data analysis, primarily because of the scientific approach used during data science projects. One of the motives for introducing a new framework is to motivate healthcare professionals to use "Data Science" to address the challenges of mental health. Having a good data analysis framework and clear guidelines for a comprehensive analysis is always a plus point. It also helps to predict the time and resources needed in the early in the process to get a clear idea of the problem to be solved.

[2] Jan Bohacik, Ivan Skula, Michal Zabovsky, " Benefiting from online mental status examination system and mental health diagnostic system ", Computer Science and Information Systems (FedCSIS) 2020 15th Conference on, pp. 27-30, 2020. In this really hectic world, quite a number of people are exposed to situations where mental stress Is unavoidable. This leads to people having all kinds of mental health problems that eventually may turn to chronic mental disorders. People with mental health problems normally have the tendency of not admitting their health problems because of the stigma attached to these kinds of illnesses. Most of them are in denial state, and this situation may cause very serious social problems since people with mental problems will develop some kind of mental disorders, and as a result, they might be harmful to others around them. People with mental health problems must receive proper treatments and medications. If their mental status can be assessed and examined easily, then most probably their mental problems can be detected at a very early stage, and can be easily controlled and cured. The above scenarios become the motivation for conducting this research. This research paper presents some findings on mental health and disorders on past research study's results and also proposes an online mental status examination (MSE) system that examines individuals' mental health status. The result of the MSE system is used in determining whether the respective person needs to undergo a more detailed diagnosis for more specific mental disorders. It is hoped that the outcomes of this research study are able to assist new psychotherapists and psychiatrists in examining and diagnosing those who are affected by some kind of mental disorders in a more efficient manner.

#### PROBLEM STATEMENT

Mental health is an important issue in the world today. With a large population now working from home and staying away from loved ones, the mental health situation has deteriorated. As such, it becomes important to track and remedy any problems before they get too serious. We try achieving this using the Companion App. Keeping in mind that users might be suffering from mental illness and wouldn't want to engage much with an app, you'll have to design the app to be very friendly and welcoming.

# **GOALS AND OBJECTIVES**

- To make a system which is user friendly.
- Security providing to important data of user.

- Tracker the mental Health of user and try to suggest the better way to improve
- Chat with doctor feature
- uses and integrated client data from fitness devices

# PROJECT SCOPE

The project focuses on building a mental health tracker. You will try to get an idea of the mental state of your user (in the least intrusive ways), find out if they are suffering and then suggest measures they can take to get out of their present condition.

#### PROPOSED SYSTEM

DUE to the rapid development of the Internet, cyber security has become an important research topic, and the energy waste caused by the occurrence of various cybersecurity incidents is immeasurable. In recent years, a large number of Internet companies have stolen user information data, resulting in the intrusion of users' online bank accounts. If the above information leakage incidents occur in the data platform of the relevant departments of the state finance and government affairs, the consequences will be unimaginable. The damage to national cybersecurity will be unprecedented. Web application layer attacks can cause long-term disruption to the resource availability, controllability, confidentiality, and integrity of data. Its influence is very persistent and secretive. A large number of web applications can construct executable commands, SQL injections, XSS and other web attacks simply by embedding executable code or malicious code in URLs. Therefore, the detection of malicious URLs has become the focus of intrusion detection.

# **SYSTEM ARCHITECTURE**

Application asks the user on a daily basis on events that occurred and on emotions. It determines automatically the basic emotion of a user from the natural language input using natural language processing and a lexiconbased approach. Depending on the emotion, an appropriate measurement such as activities or mindfulness exercises are suggested by application

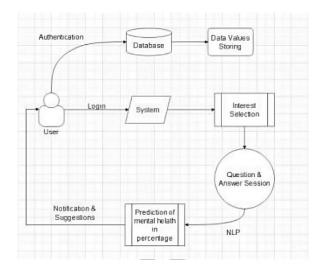


Fig -1: System Architecture Diagram

# **ADVANTAGES**

- 1. User friendly system
- 2. Hacking secure
- 3. Emergency alert
- 4. Centralized system
- 5. Security providing to important data of user
- 6. Avoiding the malicious attacks by hacker

# APPLICATION

- 1. Industrial
- 2. Hospitals
- 3. Personal

# CONCLUSION

We are overcoming the drawback of existing system, and providing a smart system that will not only monitor user mental health with security but also show recommendation whenever necessary. The undertaking centers around building an emotional wellness tracker. You will attempt to find out about the psychological condition of your client (at all meddling ways), see whether they are enduring and afterward propose measures they can remove to get from their current condition. A client responds to certain inquiries and in view of the appropriate responses that they give, you will recommend errands to them and keep a

record of their psychological state for showing on a dashboard.

developmental disabilities", Review Journal of Autism and Developmental Disorders, vol. 3, no. 2, pp. 125-136, 2016

# REFERENCES

- [1] Y. Zeng and Z. Wang, "Chinese family and change in living arrangement among the elderly," China Population Science, 5, 2020, pp.2-8 (in Chinese), doi: CNKI:SUN:ZKRK.0.2004-05-000.
- [2] M. Silverstein, Z. Cong and S. Li, "Intergenerational transfers and living arrangements of older people in rural China: Consequences for psychological well-being," The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, vol. 294, 2019, pp. 256-266.
- [3] F. Chen, and S. Short, "Household context and subjective well-being among the oldest old in China," Journal of family issues, vol. 29, 2018, pp. 1379-1403, doi:10.1177/0192513X07313602.
- [4] D. Li, T. Chen and Z. Wu, "Life satisfaction of Chinese elderly and its related factors," Chinese Mental Health Journal, vol 22, 2020, pp 543-549 (in Chinese).
- [5] L. Li and J. Liang, "Social exchanges and subjective well-being among older Chinese: Does age make a difference?," Psychology and aging, vol. 22, 2021, pp. 386-391, doi:10.1037/0882-7974.22.2.386.
- [6] V.L. Patel, J.F. Arocha and A.W. Kushniruk, "Patients' and physicians' understanding of health and biomedical concepts: relationship to the design of EMR systems", Journal of biomedical informatics, vol. 35, no. 1, pp. 8-16, 2002.
- [7] P.B. Jensen, L.J. Jensen and S. Brunak, "Mining electronic health records: towards better research applications and clinical care", Nature Reviews Genetics, vol. 13, no. 6, pp. 395-405, 2012.
- [8]. R. Hillestad, J. Bigelow, A. Bower, F. Girosi, R. Meili, R. Scoville, et al., "Can electronic medical record systems transform health care? Potential health benefits savings and costs", Health affairs, vol. 24, no. 5, pp. 1103-1117, 2005.
- [9] S. Riahi, I. Fischler, M.I. Stuckey, P.E. Klassen and J. Chen, "The value of electronic medical record implementation in mental health care: a case study", JMIR Medical informatics, vol. 5, no. 1, pp. e1, 2017.
- [10] E.R. Hong, J.B. Ganz, L. Neely, M. Boles, S. Gerow and J.L. Davis, "A meta-analytic review of family-implemented social and communication interventions for individuals with

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