



Basic Details of the Team and Problem Statement

Ministry/Organization Name/Student Innovation:

MINISTRY OF EDUCATION CATEGORY SOFTWARE

PS Code: 1433

Problem Statement Title:

Mental health and well-being surveillance , assessment and tracking solution among children.

Team Name: Team B-Well

Team Leader Name: Yashvardhan Malhotra

Institute Code (AISHE): U-0522

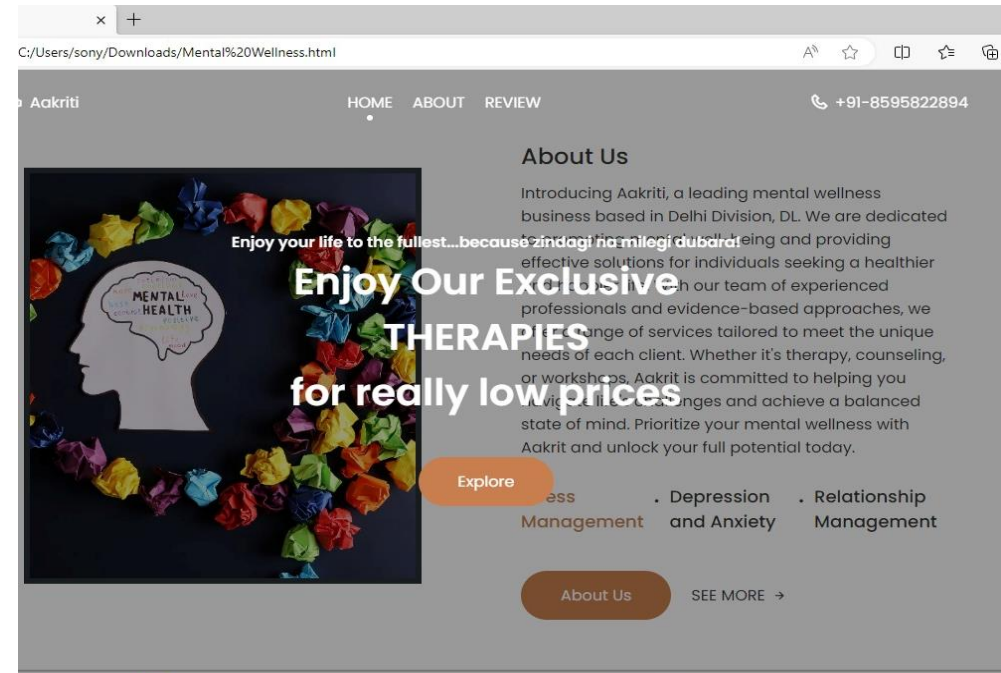
Institute Name: Jaypee Institute of Information Technology,Noida Sector-62

Theme Name: Aakriti (Mental Wellness Surveillance)

Idea/Approach Details

Idea/Solution/Prototype :

- **Comprehensive tool:** Surveillance and Tracking Solution
- **Components:**
 - Screening Through AI-powered Chat Bot Embedded in Website
 - Real-time feedback
 - Data analytics
- **Target audience:** Healthcare providers , parents , children and students
- **Purpose:** Provide insights into a child's mental health
- **Benefits for healthcare providers:**
 - Identify potential issues
 - Enable early interventions
 - Monitor progress over time
- Importance in addressing childhood mental health issues
- Ensuring children receive necessary care and support
- **Business Model** – The Website include some paid courses which will help in generating revenue , also the Psychologist help will be monetized.



Technology stack :

Web Development

HTML
CSS
JAVA SCRIPT
EXECUTION ON MICROSOFT EDGE
USED IN FRONT END

Machine Learning

PYTHON
NLP
TENSOR FLOW
NLTK
PYAUDIO
SPEECH RECOGNITION
GTTS

Idea/Approach Details

Use Cases

- 1.Early Detection of Mental Health Issues:** The system can monitor various behavioral and physiological indicators to detect early signs of mental health issues, such as changes in sleep patterns, social interactions, or physical activity.
- 2.Personalized Interventions:** Based on the data collected, the system can recommend personalized interventions or coping strategies to individuals, such as mindfulness exercises or therapy options.
- 3.Research and Analysis:** The data collected can be used for research purposes, helping to better understand mental health trends and contributing to the development of more effective treatments.
- 4.Support for Caregivers and Clinicians:** The system can provide caregivers and mental health professionals with valuable insights into their patients' well-being, facilitating more informed decisions regarding treatment plans.
- 5.Crisis Prevention:** It can trigger alerts or interventions when it detects severe deviations from normal behavior, potentially preventing crises or self-harm.
- 6.Reducing Stigma:** Normalizing mental health monitoring and discussions reduces the stigma associated with mental health issues. When monitoring is seen as a routine part of healthcare, people are more likely to seek help without fear of judgment.
- 7.Public Health:** On a broader scale, monitoring helps public health officials and policymakers assess the prevalence of mental health issues in a population. This information guides the allocation of resources and development of mental health programs.

Dependencies / Show stopper

- 1.Privacy Concerns:**
Gathering extensive personal data for surveillance can raise serious privacy concerns. Individuals may be uncomfortable with constant monitoring of their mental state.
- 2.Data Security:**
Ensuring the security of the collected data is critical. Any breach of sensitive mental health information can have severe consequences.
- 3.Ethical Considerations:**
It's essential to address ethical issues, such as informed consent, data ownership, and the potential for misuse of surveillance data.
- 4.Bias and Accuracy:**
The system's algorithms must be carefully designed to avoid biases and inaccuracies, as incorrect assessments could harm individuals.
- 5.Regulatory Challenges:**
Compliance with data protection laws and healthcare regulations can be complex, and non-compliance can lead to legal issues.
- 6.Reliability and False Positives:**
The system must be reliable and avoid generating false positives, as unnecessary interventions or alerts could cause stress or anxiety.
- 7.Acceptance and Trust:**
Building trust among users is crucial. If individuals do not trust the system, they may not be willing to use it or follow its recommendations.

Team Member Details

Team Leader Name: Yashvardhan Malhotra

Branch (Btech/Mtech/PhD etc): BCA

Stream (ECE, CSE etc): BCA

Year (I,II,III,IV): I

Team Member 1 Name: Aman Kulshrestha

Branch (Btech/Mtech/PhD etc): Btech

Stream (ECE, CSE etc): CSE

Year (I,II,III,IV): III

Team Member 2 Name: Vidhi Agarwal

Branch (Btech/Mtech/PhD etc): Integrated Btech

Stream (ECE, CSE etc): ECE

Year (I,II,III,IV): II

Team Member 3 Name: Parinika Kath

Branch (Btech/Mtech/PhD etc): Btech

Stream (ECE, CSE etc): CSE

Year (I,II,III,IV): II

Team Member 4 Name: Ishi Bhardwaj

Branch (Btech/Mtech/PhD etc): Btech

Stream (ECE, CSE etc): ECE

Year (I,II,III,IV): I

Team Member 5 Name: Tanishq Vijay

Branch (Btech/Mtech/PhD etc): Btech

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Year (I,II,III,IV): I