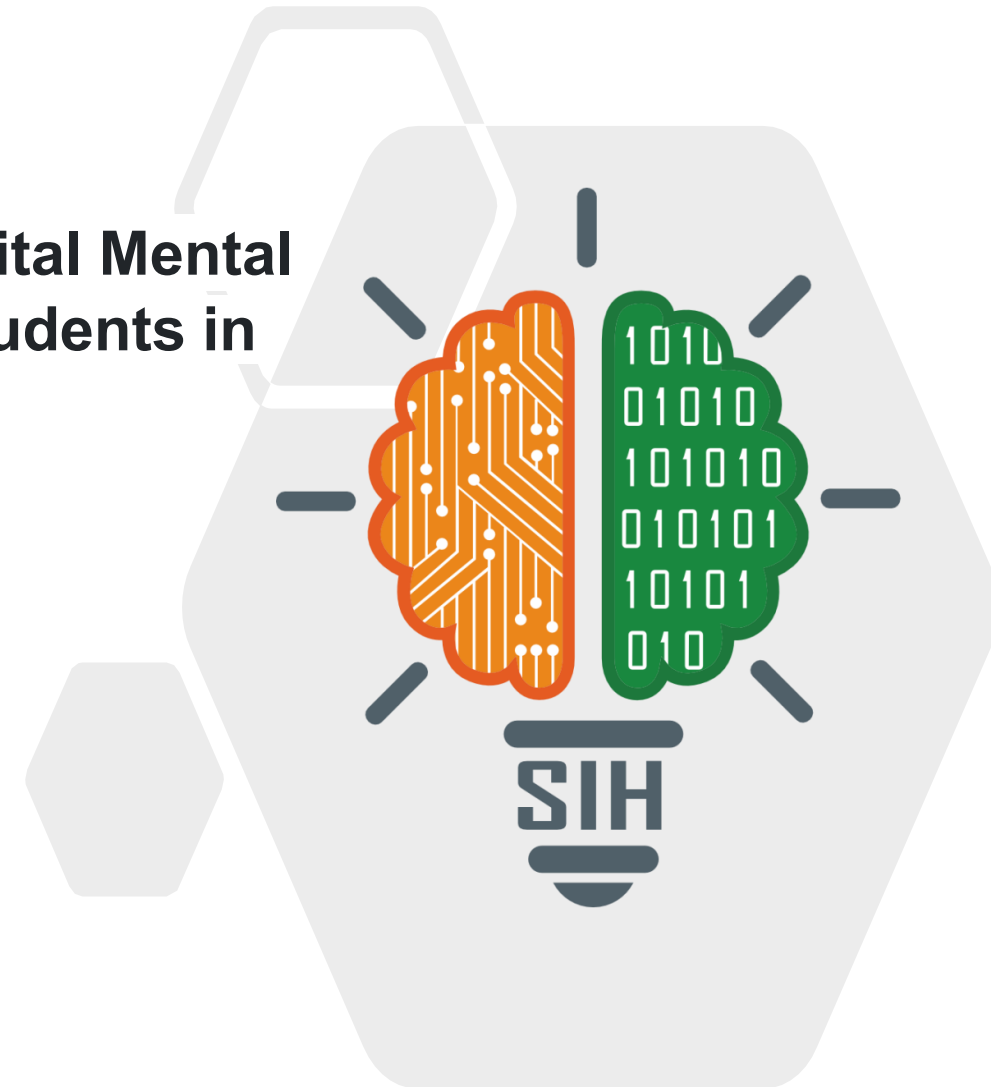
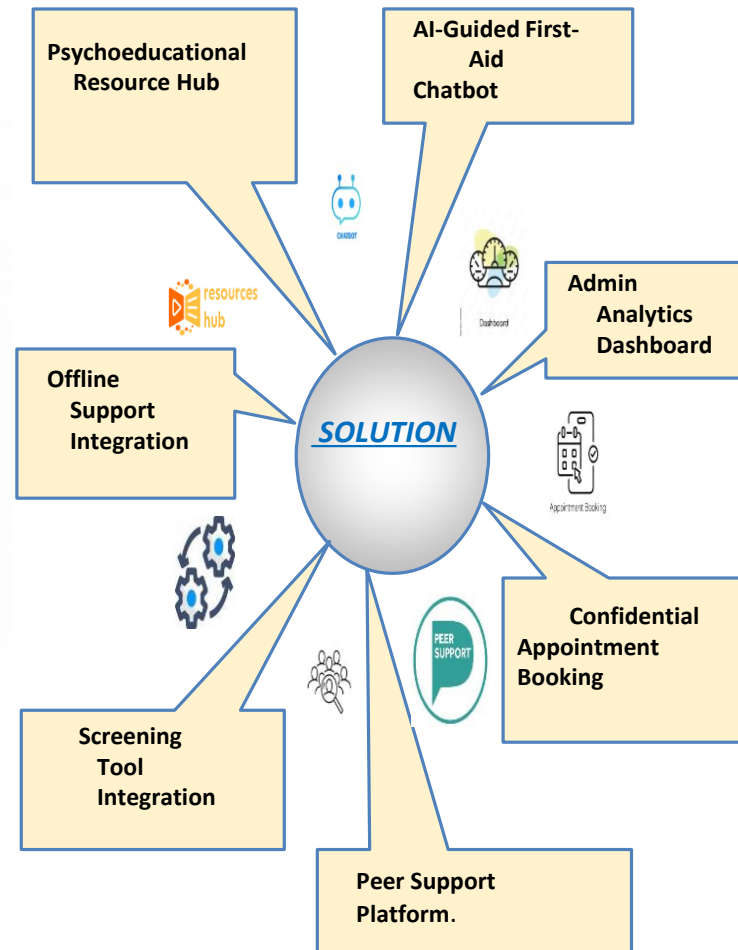
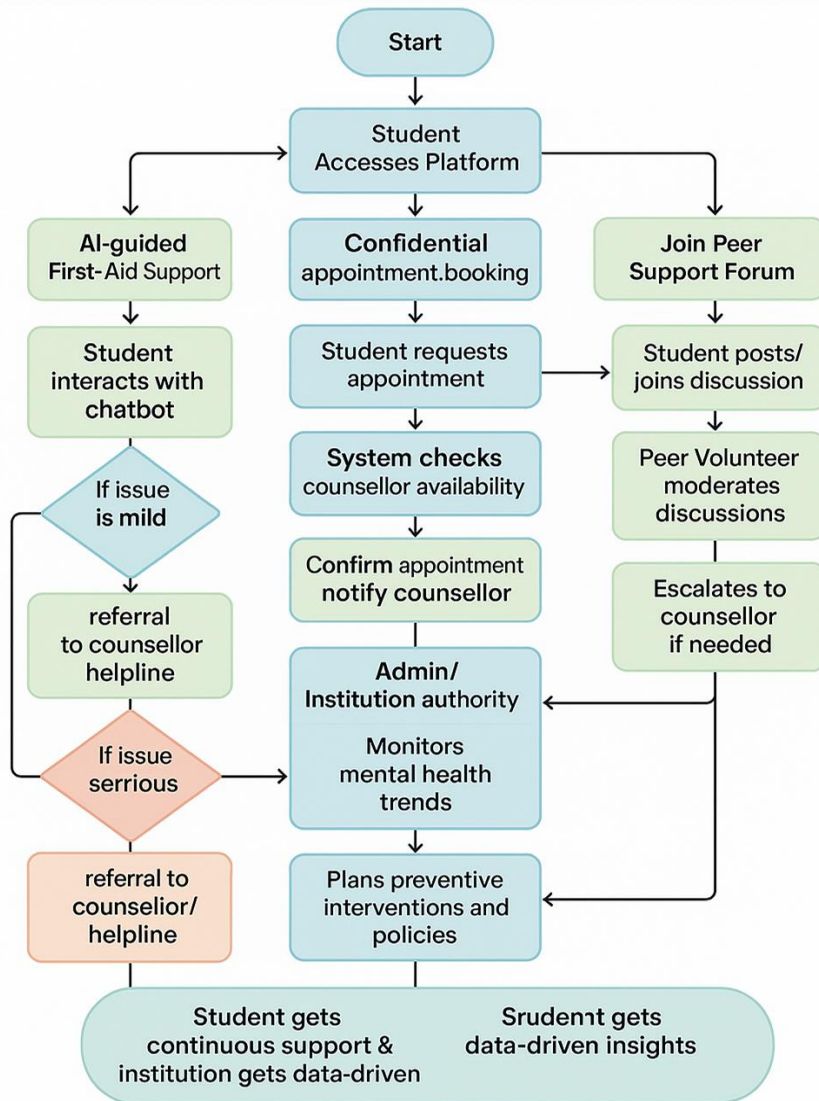


SMART INDIA HACKATHON 2025



- **Problem Statement ID** – SIH25092
- **Problem Statement Title**- Development of a Digital Mental Health and Psychological Support System for Students in Higher Education
- **Theme**- MedTech / BioTech / HealthTech
- **PS Category**- Software
- **Team ID**-
- **Team Name** - MindLeap





- PROACTIVE WEARABLE INTEGRATION
- AUTOMATIC SOUND THERAPY
- COMPREHENSIVE STUDENT SUPPORT
- COUNSELLING DASHBOARD

How It Addresses the Problem

- **Early Detection & Support** – AI chatbot, screening tools (PHQ-9, GAD-7, GHQ), and analytics dashboard enable early risk identification and escalation to professional/peer support.
- **Breaking Stigma & Access** – Anonymous booking, culturally adaptive design, and peer forums ensure a safe, inclusive environment that **reduces**
- **Holistic Care** – Digital resources + **offline support** deliver comprehensive mental health care.

Uniqueness and Innovation

- **AI-powered chatbot & validated screenings for early detection** and timely support. **barriers.**
- Anonymous, culturally adaptive access ensures inclusivity and **stigma-free engagement.**
- Hybrid digital–offline care with calming UI delivers holistic **mental health support.**

Programming & Backend

- **Node.js / Django** → Backend APIs & integration
- **UI/UX** → HTML, CSS, JS
- **Flask/FastAPI**



AI & Libraries

- **TensorFlow / PyTorch** → Stress detection, chatbot training
- **OpenCV** → Facial expression recognition
- **Scikit-learn** → Stress classification

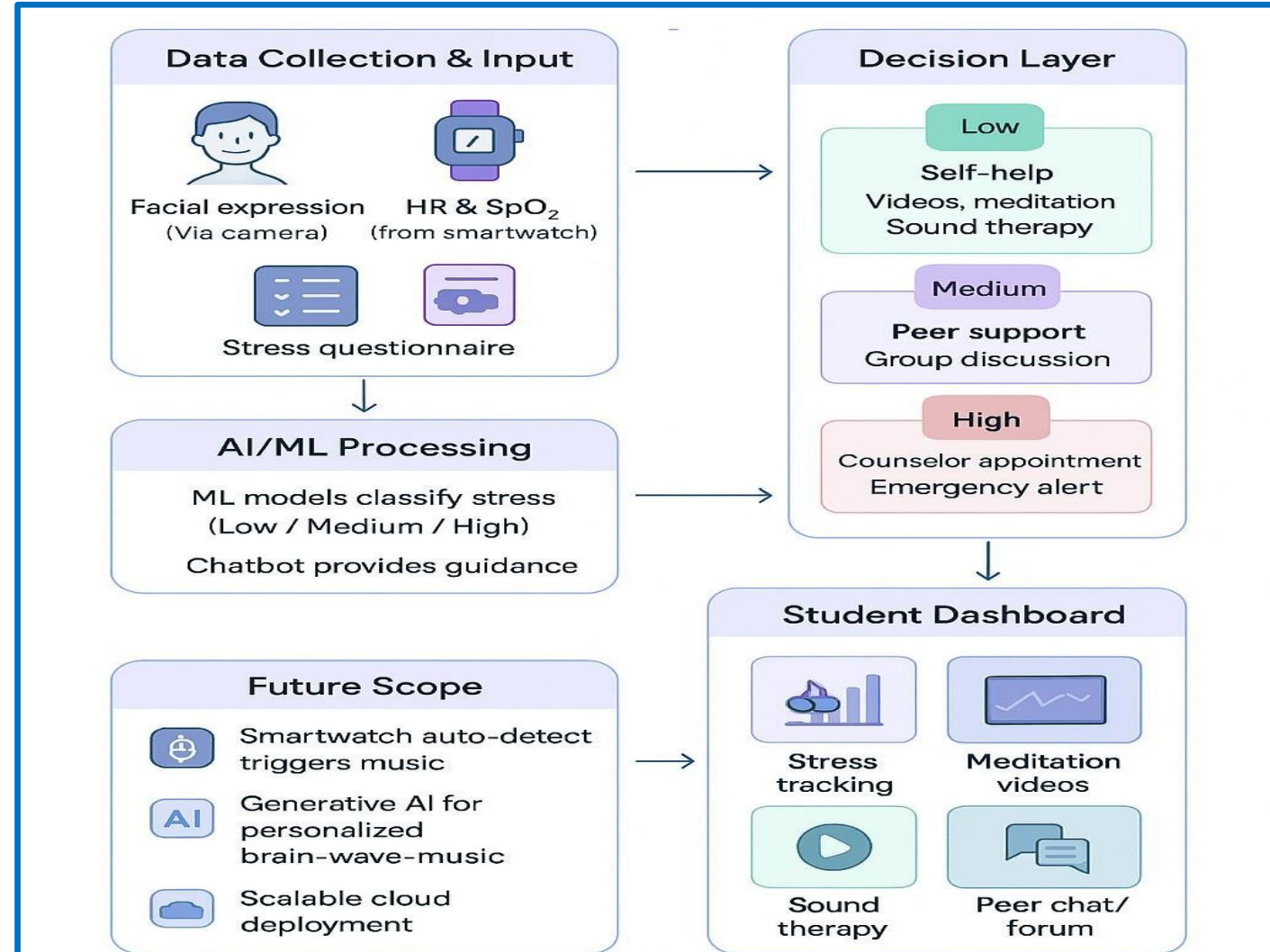
Database & Cloud



- **MongoDB / PostgreSQL** → User data & test results
- **Firebase / AWS / GCP** → Hosting, authentication, storage

Integration

- **Google Fit / Wearable APIs** → Real-time health tracking
- **IoT sensors / Smartwatches** → Heart rate, SpO2

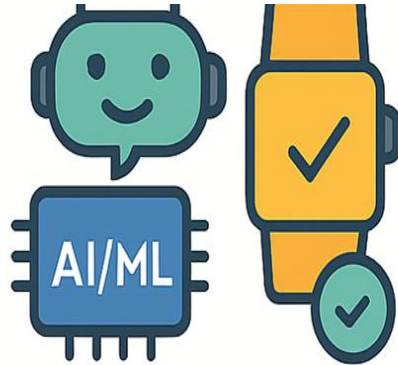


FEASIBILITY



LEGALLY & SCALABLE

Privacy
Ethics
Multi-institution
deployment



TECHNICALLY FEASIBLE

AI, chatbots
Wearables
Cloud-based tools



OPERATIONAL & COST-EFFECTIVE

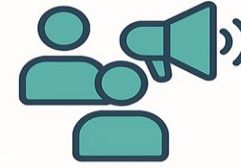
Easy student use
Counselor integration
Open-source, scalable
cloud

CHALLENGES & RISKS



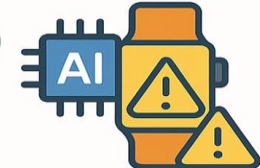
DATA PRIVACY & CONFIDENTIALITY

Protection of
sensitive
information



USER ADOPTION & ENGAGEMENT

Overcoming
stigma and
boosting
awareness



TECHNICAL LIMITATIONS

Accuracy and
reliability



COUNSELOR AVAILABILITY

Risk of resource
overload

Strategies to Overcome



DATA SECURITY

End-to-end
encryption, GDPR/
DPDP compliance



ENGAGEMENT

Gamification,
awareness drives,
calming UI/UX



RESOURCE OPTIMIZATION

Tiered support
system (self-help
→ peer → counselor)

POTENTIAL IMPACT ON TARGET AUDIENCE



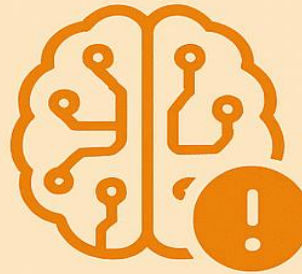
STRUCTURED & SCALABLE SYSTEM

Stigma-free psychological intervention system reducing anxiety, depression and burnout



ACCESSIBILITY & INCLUSIVITY

24/7 confidential support tailored for rural and semi-urban college students



PREVENTIVE & EARLY DETECTION

Proactive tools for mental wellbeing and dropout prevention

Benefits of the Solution



Social

Structured & stigma-free mental health support
Improves accessibility & Inclusivity in rural/semi-urban colleges
Enhances student engagement & retention



Economical

Scalable & cost-effective digital intervention
Reduces dropouts, absenteeism & productivity loss
Supports data-driven, affordable institutional policies



Environmental

Digital-first, low-carbon footprint platform
Cuts down paper & resource use
Promotes eco-friendly preventive wellness habits (walks, mindfulness, nature sounds)

Research Papers (Latest & Relevant)

- **NEJM AI, 2025** — First randomized trial of generative AI therapy chatbot
- **mHELP (arXiv), 2025** — Real-time stress monitoring with smartwatch + ML in students

Industry Reports

- **WHO, 2022** — 1 in 7 adolescents face mental health disorders
- **UNICEF India, 2023** — ~40% students face stress/depression
- **Statista, 2023** — ~35% smartwatch users track stress/heart health
- **National Mental Health Survey (NIMHANS, 2016)** → 10–20% college students face mental health disorders
- **NCRB 2021** → *Suicide leading cause of death among 15–29-year-olds in India*

<https://rupeshmeena123.github.io/SIH/>



- *“Unlike existing apps, our solution combines AI-driven chat support, real-time stress detection (face + vitals), institutional integration, and future smartwatch automation, ensuring maximum student benefit and real-world impact.”*