Basic Details of the Team and Problem Statement

Ministry/Organization Name/Student Innovation: **Ministry of Education**

PS Code: **SIH1433**

Problem Statement Title:**Mental health and well-being surveillance, assessment and tracking solution among children.**

Team Name: **Garuda**

Team Leader Name: **Yashodip Kolhe**

Institute Code (AISHE): **41474**

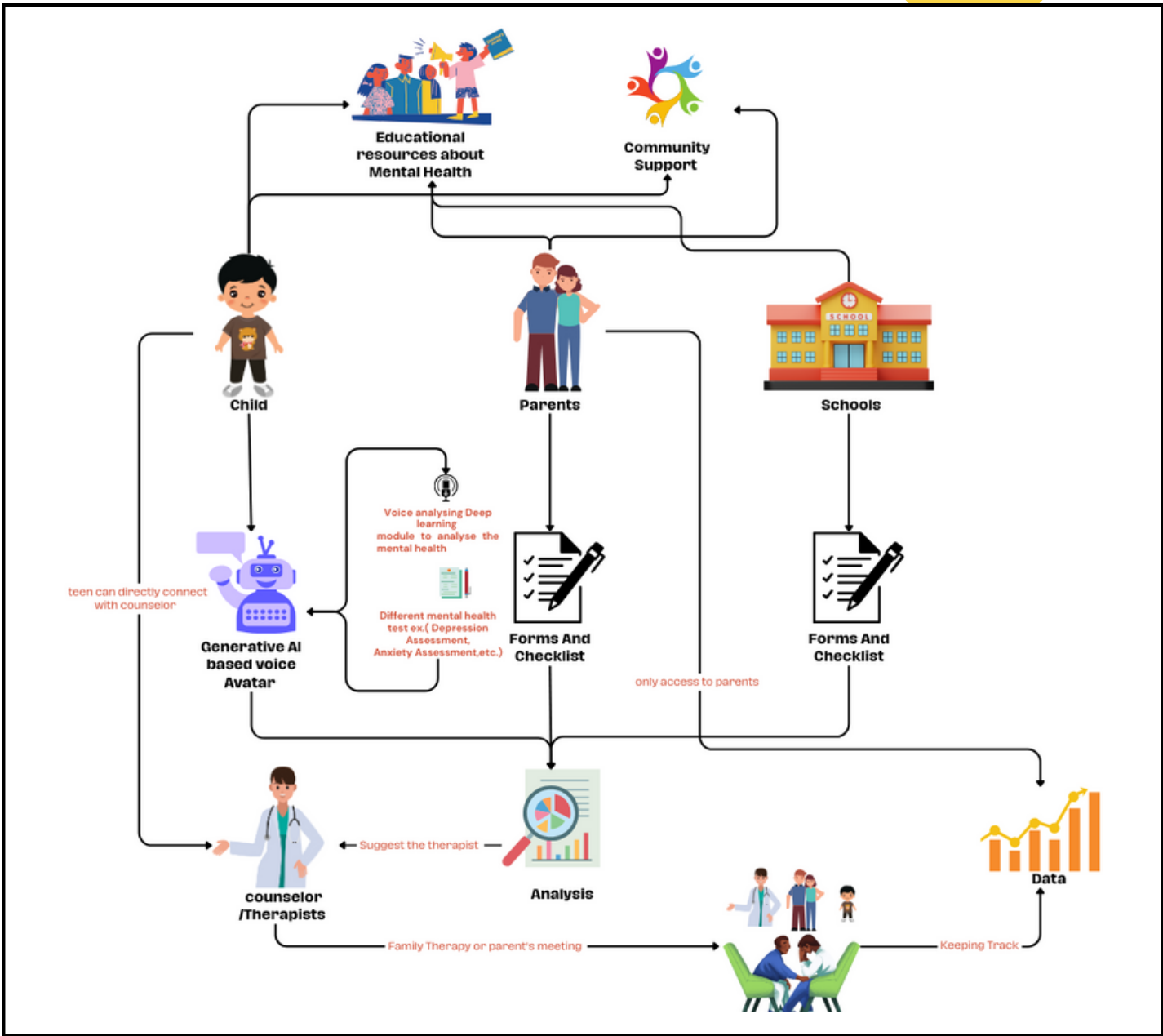Institute Name:**Sanjivani College of Engineering, Kopargaon**

Theme Name: **Smart Education**

Idea/Approach Details

Solution

Develop a specialized mental health platform for children and parents with comprehensive features:

1. **User Registration and Profiles:**
   - Secure registration with detailed user profiles for parents and adolescents.
2. **Engaging Avatars & Intuitive Interface:**
   - Customizable avatars and an intuitive, user-friendly interface for a personalized and engaging experience.
3. **Voice Analysis for Emotional Insights:**
   - Voice analysis assesses emotional well-being.
4. **Data Collection & Analysis:**
   - Collect, analyze, and visualize data from schools and parents to identify mental health needs.
5. **Consultation Support:**
   - Timely notifications with specialist recommendations.
   - AI-driven specialist suggestions.
   - Secure platform for consultations.
6. **Mental Health Tracking:**
   - Track and visualize mental health progress based on specialist data.
7. **School Collaboration & Educational Resources:**
   - Integration with schools for student well-being.
   - Access to a dedicated section with mental health educational materials such as comics, books, videos, and more.
8. **Data Privacy & Security:**
   - Strong data privacy measures with parental consent for child data sharing.
   - Special privacy option for Children above 13 years of age.
9. **Anonymous Community & Emergency Services:**
   - Anonymous support community for sharing experiences.
   - Immediate assistance in critical situations with voice analysis insights.

Technical Stack

Frontend:
- ReactJS or Angular
- Redux or Context API

Database:
- PostgreSQL
- Redis

Backend:
- Django
- Django Rest Framework

Note: These technology choices are not limited to the mentioned options they provide flexibility for your project's needs.

Idea/Approach Details

Use Cases

- **Early Detection of Issues:** The software can help detect mental health issues in children at an early stage, allowing for timely intervention and support.
- **Personalized Care:** It enables personalized care by tailoring assessments and recommendations based on individual needs and progress.
- **Improved Accessibility:** Parents, schools, and children can easily access mental health resources and support through the user-friendly interface.
- **Data-Driven Insights:** The software provides data-driven insights into mental health trends and progress, assisting in making informed decisions.
- **Collaboration with Schools:** Integration with schools supports student well-being and ensures a holistic approach to mental health.
- **Confidentiality and Privacy:** Strong data privacy measures protect user data, enhancing trust and confidentiality.
- **Supportive Community:** An anonymous support community fosters a sense of belonging and mutual support among users.
- **Immediate Assistance:** The software offers immediate assistance in critical situations, providing a safety net for users.
- **Educational Resources:** Access to educational materials on mental health empowers users with knowledge and self-help tools.
- **Long-term Monitoring:** The software allows for continuous monitoring and tracking of mental health progress over time.

Dependency's

- Training Dataset for Machine Learning Model
- Collaboration with Mental Health Specialist and Counselors
- Powerful Cloud infrastructure for performing AI/ML operations

Show Stoppers

- Unavailability of councellors
- False answers in assessment
- No cooperation from schools
- Testing for mental health problems that are not included in module can't be done

Project Status

- Data set gathering completed.
- Machine learning module implementation in progress, representing 40% of the project.
- Core functionalities developed and undergoing testing.
- Ongoing collaboration with specialists.

Team Member Details

Team Leader Name: Yashodip Arun Kolhe
Branch : Btech   **Stream   : CSE**   **Year : III**

Team Member 1 Name: Yadnesh Anil Saindane⬜
Branch : Btech   **Stream : CSE**   **Year : III**

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Team Member 4 Name: Sandali Vijay Katore⬜
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Team Member 5 Name: Trupti Rishikesh Nabriya⬜
Branch : Btech   **Stream : CSE**   **Year : III**

Team Mentor 1 Name: Dr. P. William
Category: Dean of Research and Development   **Expertise: AL / ML**   **Experience : 11 years**

Team Mentor 1 Name: Prof.Vinod Dabi
Category : Counsellor   **Expertise : mental health**   **Experience : 1.5 years**