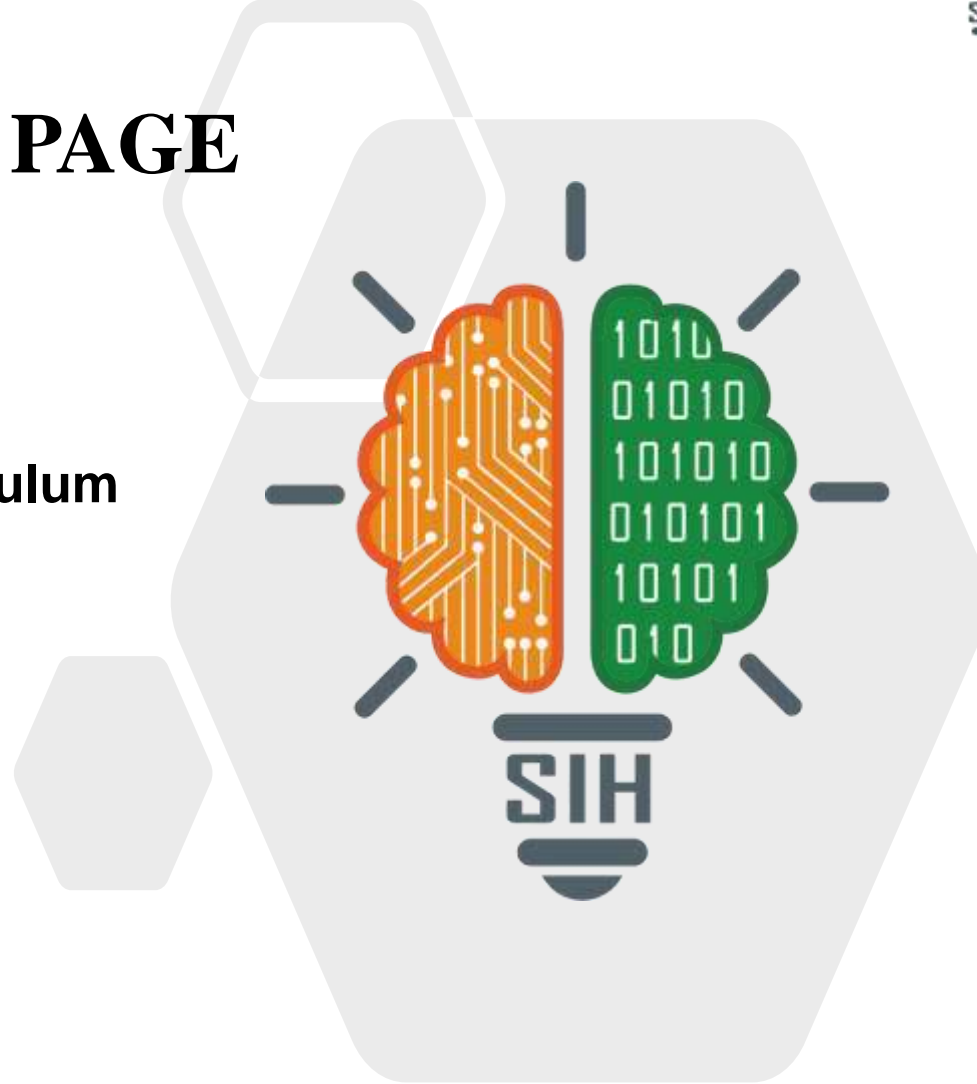


SMART INDIA HACKATHON 2025



TITLE PAGE

- Problem Statement ID –25011
- Problem Statement Title- Smart Curriculum Activity and Attendance App
- Theme- Smart Education
- PS Category- Software
- Team ID-87
- Team Name: Vibe Coders



Smart Curriculum Activity and Attendance App



Proposed Solution:

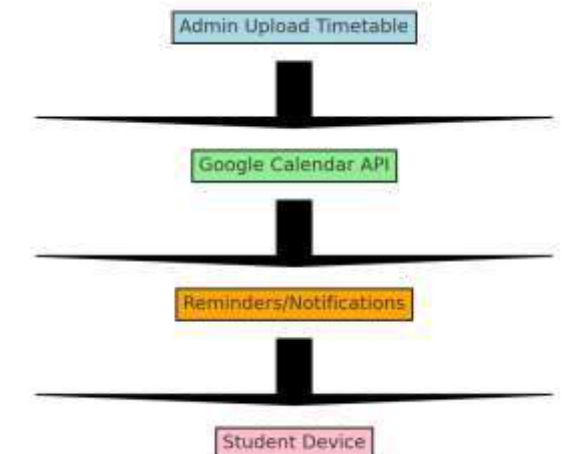
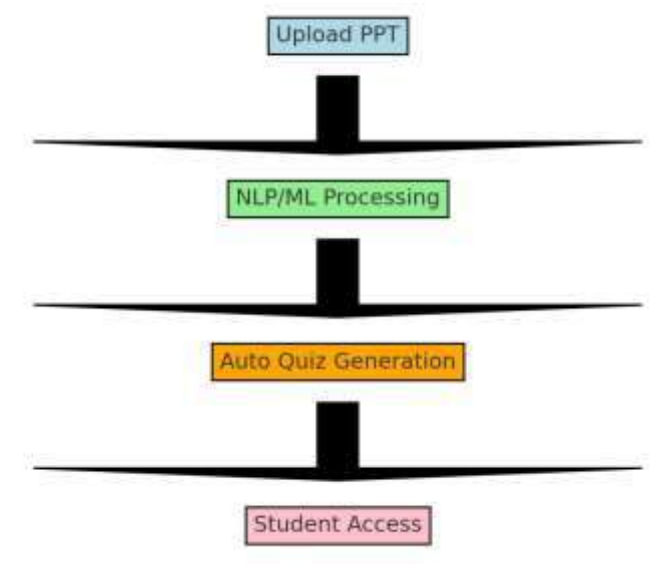
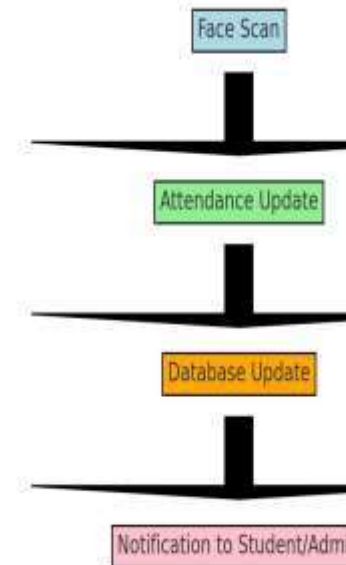
- Face Recognition for automatic attendance
- Attendance % tracker with alerts (low/high)
- AI Chatbot: PDFs → Flashcards & concepts
- Quiz Generator: PPTs → Quizzes
- Timetable sync with Google Calendar + reminders
- Role-based logins (Admin/Student)
- Confirmation messages + manual override

How it addresses the problem:

- Saves class time, reduces manual attendance errors
- Provides personalized study support during free hours
- Makes learning engaging with flashcards & quizzes
- Identifies weak subjects for focused improvement

Innovation:

- Combines Attendance + AI Learning + Quiz + Timetable in one app

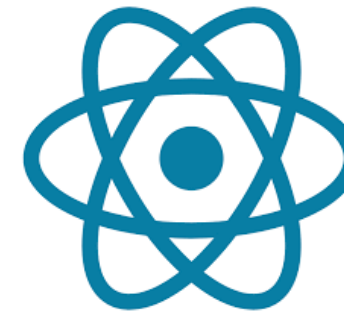


Technologies:

- Face Recognition: OpenCV, TensorFlow
- AI Chatbot: GPT APIs, NLP
- Quiz Generator: NLTK, ML models
- Calendar: Google Calendar API
- Database: MySQL / Firebase
- Frontend: Android Studio / React Native
- Backend: Flask/Django / Node.js

Flow:

1. Face scan → Attendance + % update
2. Msg to student; Admin can override
3. Upload PDF → Flashcards / concepts
4. Upload PPT → Auto Quiz
5. Timetable → Calendar reminders



Feasibility:

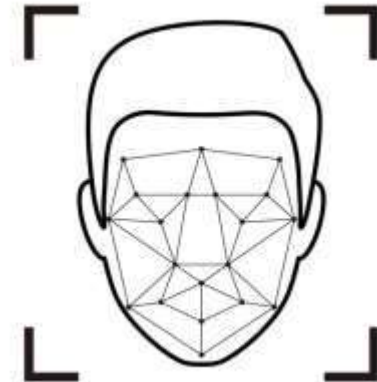
- Works with smartphones & basic infra
- Integrates with student DB

Challenges:

- Accuracy of face recognition
- Quiz quality from PPTs
- Real-time calendar sync

Strategies:

- Hybrid attendance (Face + QR fallback)
- Pre-trained models for QG & chatbot
- Secure OAuth for Calendar API



IMPACT AND BENEFITS



Impact:

- Saves teacher time
- Boosts student productivity
- Improves time management & attendance discipline

Benefits:

- Social: Better engagement & outcomes
- Economic: Cost-saving vs manual systems
- Educational: Supports NEP 2020 goals

RESEARCH AND REFERENCES



- NEP 2020 (Personalized learning)
- Studies: Attendance % vs performance
- AI Flashcard & Quiz generation research
- OpenCV + TensorFlow (Face Recognition)
- Google Calendar API docs